

Education for the Global Age

~ A Comparative Study of the Views about education for the Global Age
at Secondary School held by Students, Student Teachers and Teachers in
England and Japan ~

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ABSTRACT

This thesis aims to explore the views about education for the global age at secondary school held by students, student teachers and teachers in England and Japan. In this study, the global age refers to the present time when there are many emerging events and situations which people have to face globally. The research combined two methods to gather the data in England and Japan: questionnaire to 400 students at 5 universities and interviews with 44 teachers in secondary schools. The research focuses on looking at the following four aspects of school education: the aims of education; the content of the school curriculum; the teaching methods and assessment methods. The key findings indicate that there are some similar opinions which can be found in England and Japan. Those opinions insist on more emphasis on personal and social education, and more up-to-date education such as ICT education. Those findings, which are found in the two countries, may apply to other countries in consideration of education for the global age.

On the other hand, there are also some different opinions which reflect the social and cultural differences between the two countries. Those findings indicate that some of the issues of education for the global age should be considered carefully in accordance with the social and cultural situation of every country, even though the world will be shrinking in the global age as many teacher respondents consider.

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INTRODUCTION

The aim of this study is to explore the views about education for the global age at secondary school held by students, student teachers and teachers in England and Japan. Based on this aim, there are some features of this study as shown in the following section 1. In section 2, the structure of the thesis is outlined.

1. The main features of this study

1.1. The meaning of the global age in this study

First of all, it is very important to clarify the meaning of the global age in this study. In this study, the global age refers to the present time when there are many emerging events and situations which people have to face globally: people of different countries come in contact with each other much more than in the past; many issues such as environment, human rights, conflicts between and within countries, are discussed at an international level; the Internet has speeded up access to information produced in other countries; the ethnic mix of people living in many countries has increased; more people than ever before travel, study and work abroad.

This study tries to consider what schools should do to prepare to meet the needs of pupils who live in such global age. Accordingly, the research focuses on looking at the following four aspects of school education: the aims of education; the content of the school curriculum; the teaching methods and assessment methods.

1.2. Education for the global age in this study based on the Delors Report

In accordance with the nature of education for the global age, a wide range of

educational studies is related to this study. In those studies, some include factors that have been at the very basis of pedagogical arguments for years such as personal and social education. Others include rather new areas of educational studies such as information and communication technology education. Most of all, this study mainly looks at the work of UNESCO (United Nations Educational, Scientific and Cultural Organisation) which has contributed to peace and security in the world by promoting collaboration among nations through education, such as peace education and international understanding education. In particular, the Delors Report (1996) for UNESCO precisely describes what types of learning will be needed in the global age. Accordingly, education for the global age in this study is analysed in terms of the Delors' four pillars of education: 'learning to be', 'learning to do', 'learning to know', and 'learning to live together'.

1.3. A comparative study between Japan and England

Before setting out the aim of this study, I had a desire to research a topic in both England and Japan. As a Japanese student in England, I had access to resources in both countries, so it was possible to explore education in both countries. Moreover, it seemed to be a good time to carry out a comparative study between England and Japan, since both countries are now attempting major educational reforms. In Japan, educational reform in schools is undertaken through compulsory education. In England the new area of studies, such as citizenship education, will be introduced in the National Curriculum.

Comparative studies are particularly worth conducting when countries try to implement new educational reforms, as these often highlight key ideas about the purposes of education and how these can be achieved.

When I was an MA student at the University of York, I came across the Delors' Report and this made me very interested in how recent changes in society have implications for the education of the next generation of pupils. For this reason, I have decided to conduct a comparative study about education for the global age which is analysed in terms of the Delors report in England and Japan.

1.4. Focusing on secondary school education

Another important point of this research is that it focuses on secondary education. In general, some projects related to education for the global age can be found primary schools, secondary schools and universities. However, in terms of educational psychology, children at secondary education are in the critical developmental stage and experience great changes both physically and mentally. In general, it is the period when children extend their curiosity about family to friends, schools, society, and the world. It is said that experiences in this period can be so significant that they may affect a child's whole life afterwards. Judging from the above, it appears that the most 'effective' time for children to undertake education for the global age is in secondary education, as this is the time that the curriculum becomes very broad and deals with more sophisticated concepts and ideas, particular involving abstract thinking.

It will be also important to note that university students who have helped this research are asked about their views about secondary education based on their own experiences in secondary school.

1.5. The source of data: the three different groups

Moreover, there is another feature of this study, the source of data. There are three

different groups of the respondents for this study.

First of all, university students who are more mature and can be more objective than pupils at secondary school level are one of the source of data. In addition, student teachers who will be teachers in ‘the global age’, and will be key elements in implementing education for the global age become the target of the data. A comparison between these two groups is also one of the features of the research. It enables us to find out different students’ attitudes towards education.

Moreover, teachers in secondary schools are chosen since they may be able to provide critical and practical views of education for the global age. By selecting these different groups as the sources of data, this study enables us to explore a diversity of views about education for the global age from different angles.

1.6. The research method

Since the basic aim of this research is to collect data from several groups cross-nationally in Japan and in England, it was vital to focus on acquiring certain types of key information. At the same time, it was also important to collect various points of view, especially critical ones, for implementation of education for the global age. Therefore, questionnaires were administered to students and student teachers, and interviews were conducted with secondary school teachers in Japan and England. In analysis, both qualitative and quantitative analyses were used in accordance with the type of data. In total, 400 student and student teacher respondents, and 44 teachers were involved in this research.

In addition, there are a few significant issues which should be noted. This study explores views about education for the global age in the two specific countries: England and Japan. Accordingly, this study may contribute to educational studies in

other first world countries but not to all countries, especially those which are under developed.

In addition, the term 'English' in this study should be clearly defined here. There are many people who live and study in England coming from other countries. Therefore, it should be noted that all of the respondents for this study in England may not be 'English' people. England is a multicultural society in the United Kingdom, and includes people from other parts of the UK, mainland Europe and beyond. Nevertheless, this study focuses on not British but English secondary school education. Therefore readers should regard the respondents who have helped this research in England as 'English respondents'. In the case of Japanese sample, there is very little mixing of nationalities in this way in comparison with English case.

1.7. The importance of this research

In recent research which is relevant to education for the global age in this study, many limits and difficulties such as limited understanding of participants; the gap between theory and practice; lack of financial support from the government; and criticism of studies relating to education for the global age are found. Nevertheless, this study believes that there is no education without any problems. In addition, it is a fact there is a need for education that can cope with rapidly changing society and that promotes the global age as noted in the above. Moreover, a comparative study enables us to learn the advantages and disadvantages of education in each country. I, therefore, believe this study may contribute to overcome limits and obstacles. It will also assist the academics, policy makers and school teachers who are interested in comparative studies in the area of education for the global age.

This study is one of the first to explore how Delors' ideas are viewed by those involved

in education, such as students and teachers between England and Japan. It clarifies the nature of education for the global age as seen by those involved in education.

2. The structure of the thesis

This thesis consists of eight chapters. Chapter 1 gives a review of the literature, providing significant historical events in education in Japan and England. Section 1 describes Japanese education, and is divided into three parts: pre-war education reform; post-war education reform and the third education reform. In section 2, the 1944 education act, the 1988 education reform act, and the current educational reform in England are described.

Chapter 2 describes the significant terms used in this study. Section 1 explains the features of the global age, by looking at political, social, economic events in the world. Section 2 is about education for the global age, and the works of UNESCO and the Delors' report which is regarded as the basis of this study are described.

Chapter 3 looks at studies relating to education for the global age, such as foreign language education, information and communication technology education and citizenship education. It also includes a research review which is particularly relevant to the research of this study. In section 2, problems and criticisms of those studies are briefly mentioned.

Chapter 4 is about methodology and research design of this study. It describes general methodological and ethical issues as well as research methods, the process of data collection and analysis used in this study.

Chapters 5 to 7 present analysis of findings from the research. Chapter 5 describes Japanese findings, and chapter 6 presents English findings. In chapter 7, findings from the two countries are compared and discussed with detailed analysis.

Chapter 8 is the conclusions chapter, reviewing the main findings of the research. It also highlights implications for further study, providing future research possibilities. In addition, the discussion of implications covers further educational reform in England and Japan as well as suggestions for other countries.

CHAPTER 1

EDUCATION IN JAPAN AND ENGLAND

The aim of this chapter is to provide some general ideas on the educational background in Japan and in England. This chapter is divided into two sections: the former describes Japanese issues and the latter examines English ones. Section one is divided into three parts. Parts one and two will show historical events in education in Japan of pre- and post-world war two in Japan. Compared with these two parts, the third one is closer to the topic: present educational movement in Japan, which is called the third educational reform. It will be illustrated as the most important part.

In section two, which is also divided into three parts, educational changes in England will be described. Parts one and two focus on reform acts in 1944 and 1988 in England. In part three, I would like to pick up some key issues which relate to education for the global age in the National Curriculum.

In these sections, not only educational issues but also the political, social and economic aspects of each country will be considered and the four aspects of education: aims of education; curriculum content; teaching methods and assessment methods in Japan and England, which are considered in the questionnaire used in this study, will be described.

SECTION 1. JAPAN ~ EDUCATIONAL BACKGROUND

We should start by looking at general information on the social background in Japan. First, the Japanese population was 125 million in 1995 (United Nations, 2000). It is about 2.6 percent of the world's population, and Japan as small islands extending along the north-eastern coast of the Asian continent occupies 0.27 percent of the earth's land mass (Kodansha, 1983). Japanese people, except the small group of Ainu living in

Hokkaido in the north part of Japan, are basically homogeneous in terms of ethnicity. Although it may not be very common to describe non-Japanese people as a ‘minority’, the total ethnic minority population is 0.8 per cent of the total population in Japan (Ishizaka et al., 1994).

In Japan, there are many religious organisations, as many as 184,000, and freedom of religion is guaranteed in the constitution (Monbusho, 1997a). However, religious education is strictly forbidden in any state schools. All school education is under the law of the Fundamentals of Education Act (Shimomura, 1998).

In 1994, public expenditure on education was 3.6 percent of the Gross Domestic Product (GDP), 9.9 percent of total public expenditure (UNESCO, 1999). The number of lower secondary schools is 11,257, and of upper secondary schools is 5,496 in 1997 (Monbusho, 1998a).

We now move on to the history of Japanese educational issues which relate to the main topic. According to Japanese educational studies, including Kawai (1995) and Fujita (1997), there are three major educational reforms in Japan. These three educational reforms shall be described as educational background information for this study in the following three sections.

1. 1. PRE-WAR EDUCATIONAL REFORM

The first educational reform which is generally called the pre-war educational reform was carried out in the late 1800s. Historically, it was when the Tokugawa Shogunate which had ruled Japanese society for more than two and a half centuries collapsed, and the Emperor Meiji regained his absolute authority in 1868 (Sato, 1991; Booth et al., 1995). This political and nation-wide revolution caused the collapse of the feudal system and the rise of modern capitalism, and had enormous influences on not only society but also on the educational system. Three years later, in 1871, the Ministry of

Education was created, which some people such as Kawai (1995) see as the beginning of westernisation in Japanese education.

The main cause of the pre-war educational reform was that Japan's industrial economy was small by comparison with that in modernising western countries, for example, Britain, where the Industrial Revolution was taking place. After two and a half centuries of an isolationist policy, Japanese leaders at that time had to admit that Japan was not sufficiently developed to be a member of the advanced countries. The Japanese leaders, who were apprehensive about the danger to be colonised by western countries, needed a quick decision to avoid any risk situations for Japanese people. Accordingly, what the Meiji leaders chose to redevelop their nation to make it strong enough to confront an invasion of western countries, was through education.

The reform clearly aimed to catch up with the modern capitalism of strong America or European countries. A determined declaration of A. Mori, an early minister of education, was as follows:

“Our country must move from its third-class position to second class, and from second class to first; and ultimately to the leading position among all countries of the world. The best way to do is the foundations of elementary education.” (Schoppa, 1991, p. 25)

According to this policy, the government enthusiastically learnt from the young scholars, whose topic was mainly European studies, to create more effective school systems (Yamazumi, 1992). By overcoming several political confusions and several conflicts with conservatives who often supported traditional Chinese Confucianism, Japanese leaders carefully learnt about various educational policies in western countries. As a result, ideas for the new educational system were based on various educational policies from many European countries. To take a simple example, the introduction of a system of “university” came from Europe. Booth et al. (1995) gives some other

examples:

“From France, the Japanese took the importance of a highly centralised structure; from Germany, the notion of a higher education built round a few elite public universities. The United States supplied a variety of pedagogical approaches and an interest in vocational education; Britain, the public ‘virtues’ of the character-building effects of athleticism and moral discipline.” (p. 280)

The above remark shows that the first educational reform in Japan has attempted to catch up with the advanced countries’ educational standards, in other words, a high global standard at that time.

The structure of pre-war school system in Japan should be described here briefly. The school system in pre-war school education comprised compulsory elementary school for six years, upper-elementary school for two years, various kinds and duration of secondary schools, and institutions of higher education (Sato, 1991). Among various choices after the elementary school, only a few pupils who were accepted in the middle school could continue their further education. There were mainly two reasons why the number of pupils who went on to further education at that time was very low.

First, a multitracking school system provided few opportunities for pupils to switch. Secondly, it was regarded as common sense that higher education was only for people who were in high social and economic status. In those days, most Japanese parents needed child labourers rather than academically educated children. The detailed percentages will be shown later, compared with those in the post-war education system. In general, this pre-war education reform, providing elementary education for all children, seemed successful in terms of catching up with western countries. It might be worth mentioning that no other Asian state had greater faith than Japan in education in the 1930s (Stephens, 1991).

Nevertheless, copying western education systems could not be enough to introduce

western social ideas about democracy and individualism. It was extremely different from the traditional feudalism, which had deeply penetrated Japanese people in many ways after two and a half centuries of dominance of the Tokugawa Shogunate. Accordingly, an imposition of western ideas could be very threatening for the Japanese identity, which placed great value on nationalism at that time. By struggling with the large distance from the national identities and cultural differences of western countries, Japanese education gradually became a tool strengthening defence and national prosperity, in other words, promoting extreme militarism.

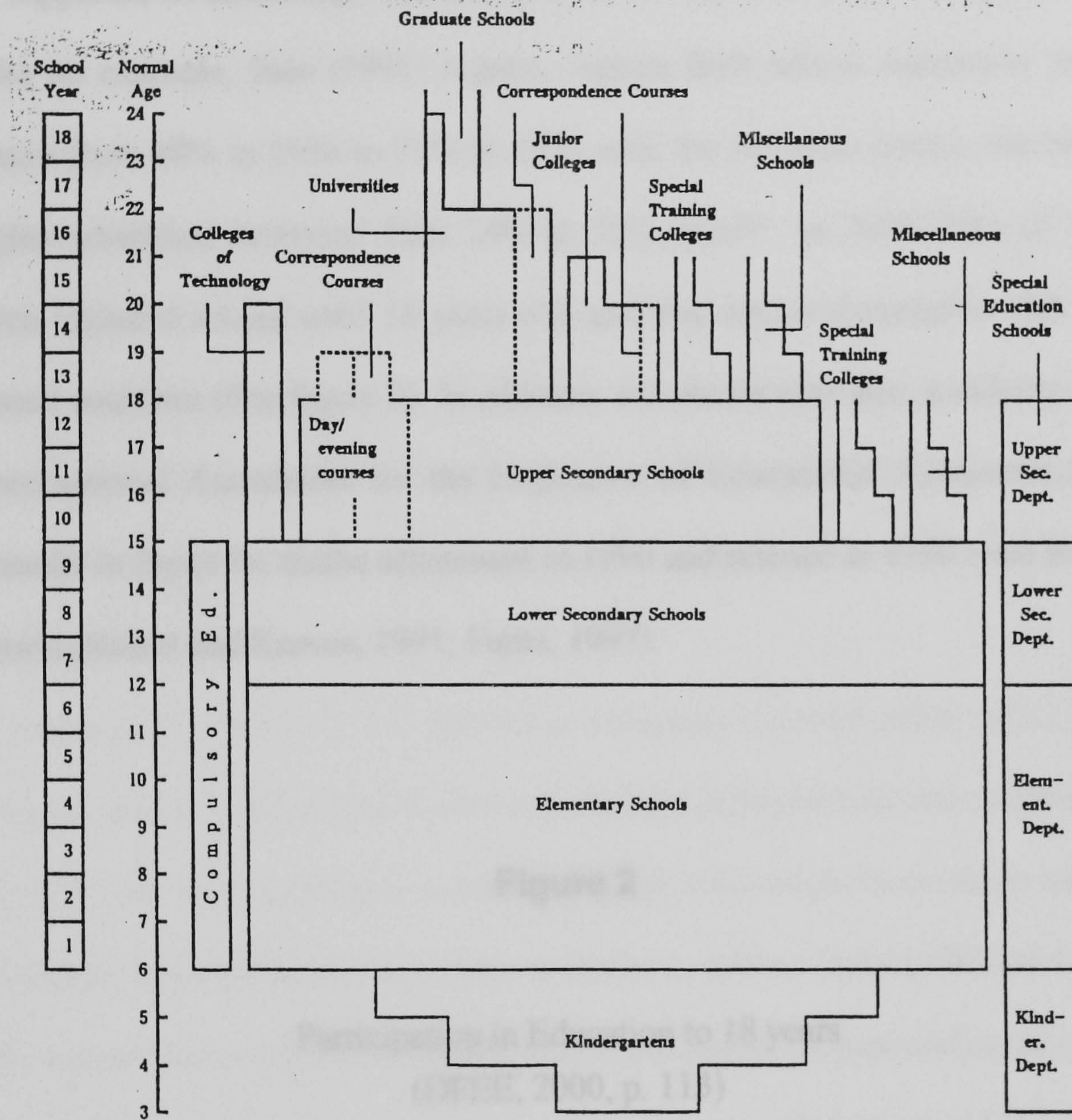
However, the extreme militarism and extremely patriotic education eventually ended with the Japanese losing of the Second World War in 1945. This significant event truly had a great influence on Japanese education. In the next section, the second education reform will be described by looking at economic aspects of Japan.

1.2. POST-WAR EDUCATIONAL REFORM

The second educational reform was implemented in the chaotic society after the Second World War. This transformation is called Post-War Education Reform. The difference from the first education reform is that the Post-War Education Reform was solely based on ideas from the United States. According to the advice of the United States Education Mission to Japan, which came in 1946 and 1950, the Education Reform Council managed the reform (Kodansha, 1983). Following the Fundamental Law of Education of 1947, the new school system called the 6-3-3-4 system became a more simplified form than the one in pre-war education; Six years of elementary school, three years of junior high school, three years of senior high school, and four years of university, or in some cases, two years of college. To explain the post-war education structure, the following diagram (figure 1) will be useful.

Figure 1: Structure of post-war education in Japan.

(Monbusho, 1998a, p. 6)

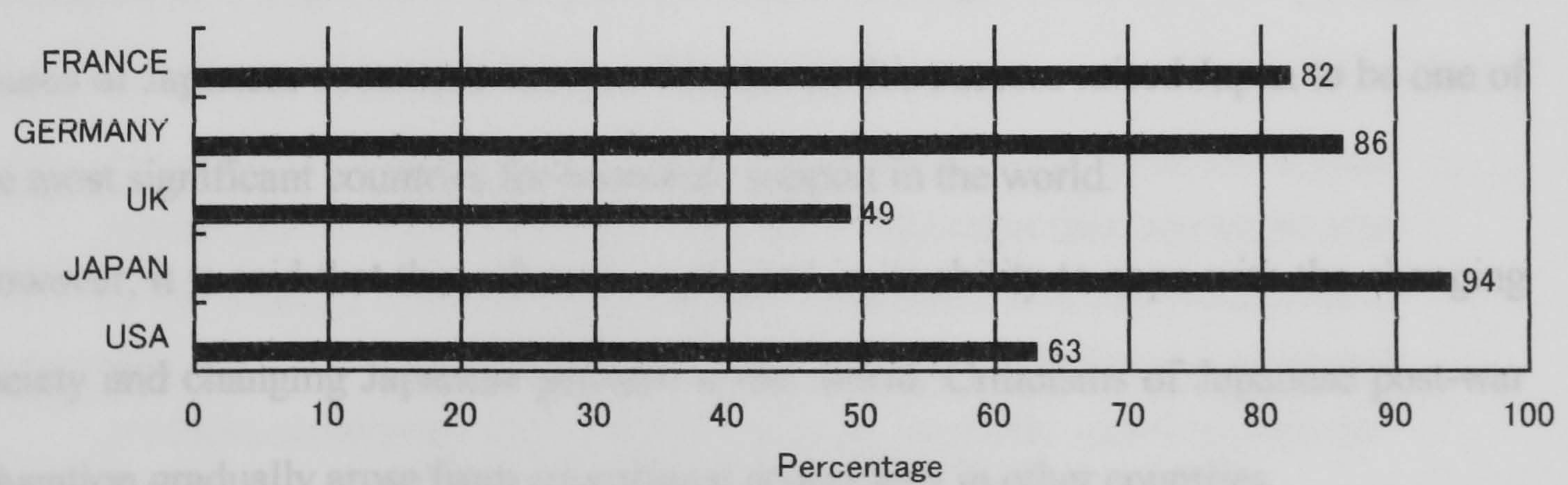


One of the key issues, which should be considered in the context of the post-war educational reform in Japan is the

The main aims of the post-war educational reform were: removing the militarism of the pre-war period; creating democratic education as Dewey (1966) argued; and establishing a schooling structure based on an idea of equal opportunities for all. This reform, which was completed by 1950, was the foundation of the post-war education, and it supported remarkable growth of Japanese democratic and widespread education. To take an example, Sato (1991) reports, “senior high school attendance for males increased from 48% in 1950 to 91% in 1975, and, for the same period, the attainment of higher education increased from 14% to 35% (p.81)”. In 2000, 94% of Japanese children attended school until 18 years old, and that rate is remarkably high even in advanced countries (See figure 2). In addition, we should note here a striking result of the International Association for the Evaluation of Educational Achievement (IEA). The results in Japan for maths attainment in 1990 and science in 1970 were the best in the world (Rosier and Keeves, 1991; Fujita, 1997).

Figure 2

Participation in Education to 18 years
(DFEE, 2000, p. 113)



One of the key issues, which should be mentioned as the significance of the great success of post-war education reform, is the remarkable growth of the Japanese economy. Despite losing world war two and suffering great damage and chaotic confusion in society and politics, Japan succeeded in its economic growth and became the second biggest economic power within 40 years (Nakanishi and Nishimura, 1990). Needless to say, this successful economic growth led Japan to hold one of the most important positions in world economy. In the period when Takeshita was a prime minister (November 1987 ~ June 1989), Japan promised economic support for three activities as its contribution to the world. Firstly, a contribution to the area of peace keeping; secondly a contribution for international exchange of culture to maintain the Chinese Dunhuang ruins for world heritage. Thirdly, Japan contributes support for developing countries; Official Development Assistance (ODA). In 1989, Takeshita, the prime minister promised support of 50 billion dollars over 5 years (Nakanishi and Nishimura, 1990).

As a result, in the 1980s the US and many European countries often called Japan an “economic animal”, and tended to conclude that the Japanese post-war education is the secret of its enormous economic success. Although there might be no direct connection between education and economy, some researchers, such as Duke (1986) and Howarth (1990), suggest Japanese education succeeds in promoting diligent and quality workers. In conclusion, the post-war educational reform was regarded as one of the important causes of Japanese economic success. Moreover, this success raised Japan to be one of the most significant countries for economic support in the world.

However, it is said that this reform was limited in its ability to cope with the changing society and changing Japanese position in the world. Criticisms of Japanese post-war education gradually arose from educational researchers in other countries.

First, critics point out that one of the disadvantages is in Japanese teaching methods. As Duke (1986) explains, “memorise, repeat, drill, and test....There are no secrets in

teaching method in Japan. They are the traditional methods” (p. 64). Although this method was useful for acquiring a large amount of knowledge, it is inadequate for developing creativity and thinking skills. Consequently, as critics claim, Japanese schools seem to pay insufficient attention to cultivating self-improvement and building character of each pupil (Rohlen and LeTendre, 1998).

In addition, Japanese educational society became extremely competitive as the following quotation from Inui (1993) explains:

“The serious problem in Japanese education today is the excess of competition. Although that helps the high standard of Japanese education, it also brings about many difficulties for young people....The competition in the school system is, in general, closely related to the competition in society as a whole, especially in the labour market.” (p. 301)

Moreover, the excessive demands of competitive society intensely affected Japanese school education and was profoundly related to problems such as bullying, violence in schools and school absenteeism, which will be described in the following section in depth.

It should be concluded that post-war education reform had both advantages and disadvantages. Moore and Lamie (1993) fairly describe the present Japanese education system as follows:

“To some observers it is a triumph, producing high standards and a great proportion of children going on to higher education than anywhere else in the world. To others, including some Japanese, it is less wonderful. It may, they argue, teach the basic skills with great efficiency, but its end products sometimes seem sadly lacking in creativity and imagination.” (p. 43)

These negative aspects of Japanese education have led to several reforms. In the next

section, some recommendations of the ministry of education related to education for the global age will be described.

1. 3. THE THIRD EDUCATIONAL REFORM

It was around the 1970s that ministry of education in Japan recognised the limit of the present educational system. The first appearance of the term of “the third educational reform” was in a reform of the Central Council on Education in June 1971 (Fujita, 1997; Schoppa, 1991). In this report, a section that suggested a basic guideline for internationalism and education policy was put for the first time. The report noted, “it is a significant issue to propel education for international understanding and to cope with international society which makes rapid progress.” (Yoneda et al., 1997).

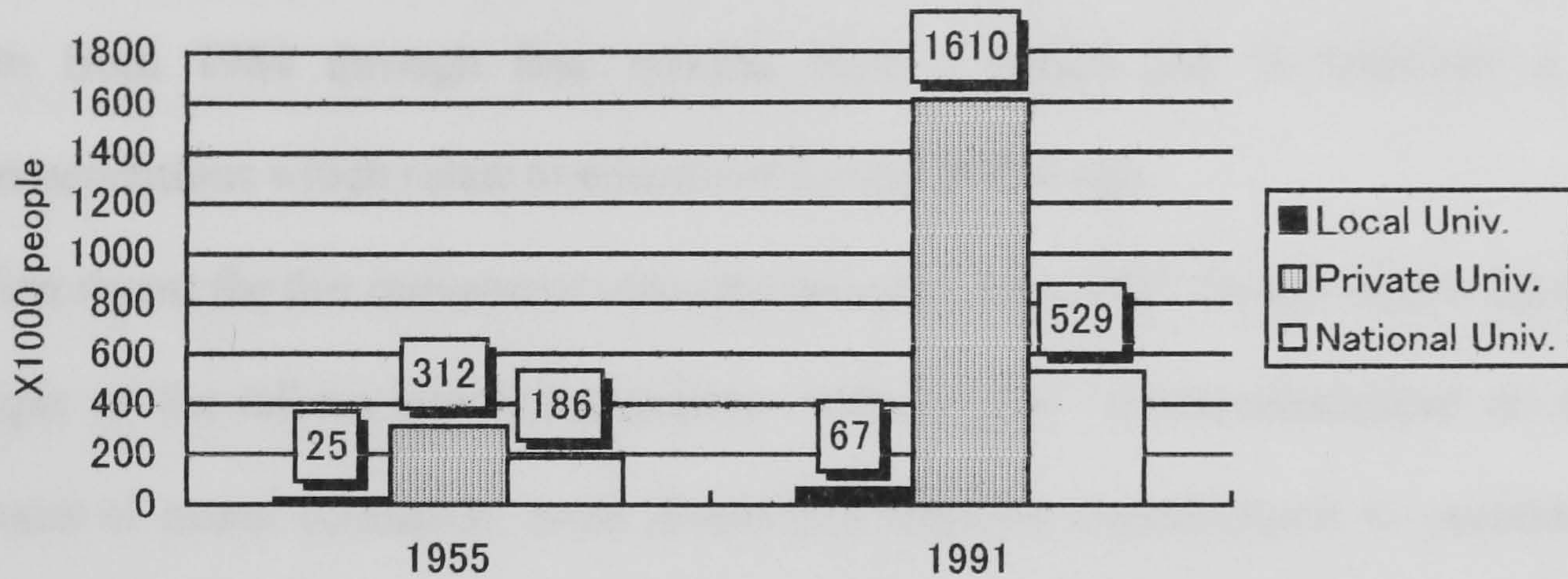
Following this report, the Curriculum Council (CC) announced another report in 1976.

This report stated that educating respectable and reliable Japanese in international society would be one of the aims of the amendment of the curriculum (Amano, 1993).

However, these two reports could not have an enormous influence on the Japanese educational system in the end. One possible reason is that Japanese school education in this period had more serious issues, such as violence in schools, physical and psychological bullying, and highly competitive entrance examinations to university. For example, according to a white paper on disorder in schools issued by the Ministry of Education, the amount of violence in lower secondary schools reached 1,388 reported incidents in the 1970s (Kanekura, 1998b). In addition, the number of pupils (from primary to senior high schools) who committed suicide became the highest (380) in 1979 (Kanekura, 1998a). Moreover, increasing numbers of students applying to universities resulted in harder and more competitive entrance examinations (see figure 3). Facing these facts, schools and students had no alternatives for more flexible curriculum, such as implementing of international education.

"to create an educational system which is able to build up a society full of vitality and security in the first century." (Schoppa, 1993, p. 37)

Figure 3.
Number of Students going to Universities (Ishizuki, 1996, p. 376)



Nevertheless, although there was no remarkable change in the education system, 'internationalism' made more progress, and started to affect Japanese education. After the 1980s, the number of students who were educated in other countries and returned to Japan increased rapidly. In 1989, for example, it reached more than 10,000, and in 1990 it was 49,336 (Amano, 1993). Moreover, for a similar example, the number of foreign people who live in Japan in 1989 increased to 984,455, which was 0.8 per cent of the Japanese population (Amano, 1993). These social changes demanded the new dimension for Japanese education.

After facing such serious demands, Nakasone, the prime minister from 1982 to 1987, succeeded in establishing a new body to cope with emerging educational issues in August 1984: the Ad Hoc Council on Education (AHCE). The main purpose of AHCE is:

... to contribute to development of society, education, and understanding of different cultures in the world (Amano, 1993). In addition, the new discussion for the

“to create an educational system which copes with the change in times, to build up a society full of vitality and creativity relevant to the twenty-first century.” (Schoppa, 1991, p. 5)

The members of AHCE started to consider a more serious and effective education reform from 1984 through four reports. Here I would like to highlight a few recommendations which relate to education for the global age.

The first report for this movement was announced in June 1985. In this report, the basic principle of the reform which appreciates ‘individuality’, recommendations on more emphasis of moral education, more diversified entrance examinations to universities, and the new structure of secondary school education (six-year period secondary school) were addressed. Most of all, an important issue for this study is that the report mentioned the position of Japan in the world as follows:

“We need to acquire international trust and contribute to international social developments, with appreciation and respect for Japanese culture as well as other cultures.” (AHCE, 1988, in Amano, 1993, p. 53.)

Moreover, as tasks of education, the report suggested,

“We need to recognise that a respectable international person means a respectable Japanese. It needs to develop the notion of respect for the nationality, and Japanese culture, as well as understanding of other cultures.” (AHCE, 1988, in Amano, 1993, p. 53.)

The second report was published in April 1986. In this report, AHCE emphasized values of personal and social education and significance of the position of Japan in the world, and her contribution to development of economy, education, and understanding of different cultures in the world (Amano, 1993). In addition, the new discussion for the

educational problems of children who have returned from abroad was also raised in this report.

The third report of April of 1987 suggested a more realistic movement for education for internationalism, followed by recommendations on assessment methods and vocational aspects of education. The creation of a new international senior high school and systematic co-ordination in schools for introducing overseas students were supported by this report.

The fourth report of August of 1987 clearly indicated the importance of internationalised education:

“The following new era of internationalism would be different from former industrialism. We have to contribute and have respect in any aspects for peace and expansion of the human being, by having a global view.” (AHCE, 1988, in Amano, 1993, p.54.)

Following these reports, the Board of Education in some prefectures attempted to introduce international understanding education. The Chuoh Kyoiku Kenkyu-sho which researches educational issues through Japan reports that 22 references relevant to international understanding education were published at some prefectures in the 1980s (Chuoh kyoiku kenkyu-sho, 1992a).

However, it has to be mentioned that implementation of those reports were also not greatly successful. Generally speaking, there were three possible reasons for that.

First, there were criticisms about the fundamental principles of the proposals. Amongst various types of criticisms, an argument about ‘internationalisation of education’, which was one recommendation, did not solely refer to education for world peace and disarmament but seemed to concentrate on commercial education for the global market (Okano and Tsuchiya, 1999).

Second, the rise of violence or bullying in schools because of the pressure for

examination success still occurred frequently. For example, the number of reported incidents of violence in lower secondary schools became the highest of 1,862 in 1986 (Kanekura, 1998b). In the same year, 31 per cent of pupils in primary to upper secondary schools were bullied and which was the highest number at that time (Kanekura, 1998a). In addition, 268 pupils in primary to upper secondary schools committed suicide and which was the second highest number in annual reports (Kanekura, 1998a). Although these numbers should be related to the larger population of school age children, we might consider that disorders in schools were more serious issues than internationalisation for both teachers and parents at that time.

For the third reason, we should mention the social background around the 1980s. Japanese people's respect for qualification-based social structure, which is described well by Dore (1997), seemed to be never changed at that time. Although Japanese people, as many as 10 million, go abroad for business or for leisure (Nakanishi and Nishimura, 1990), and have some doubts in their competitive education and society, their views could not be the main force for changing a fundamental structure of the post-war education system yet.

In the 1990s, however, the failure of the "bubble economy" and the weakening Japanese economy became one of the strong key issues for the third educational reform. In addition, continuous unsolved school problems such as bullying, which affected 58.4% of all lower secondary schools in 1995, finally pushed people to reconsider their excessively competitive academic society and educational system.

After carrying out the above amendments in vain, several issues were discussed to implement the real third education reform act which should be truly effective. Among various arguments, a major criticism of Japanese post-war education is in its pedagogical idea. As many scholars argue, Japanese "democratic" education has solely succeeded in terms of participation (LeTendre, 1999b). The increasing number of female participants in education and of students enrolling in secondary schools may

provide massive egalitarianism in Japanese education but rarely supplies the real goals of democratic education, such as “fullest development of the individual”. In addition, blames for excessively intensive time-tables, a lack of personal and social education and a lack of creativity became the main issues of the present education system. People gradually realised that quality rather than quantity in education is more important, after witnessing increasingly serious issues in schools, such as bullying, suicide and school refusals.

Lastly, I would like to examine the reports of the Central Council on Education (CCE) suggesting amendment of the school system and curriculum, as the third education reform act.

The two reports, ‘Concerning the State of Japanese Education on the Brink of the 21st century’, were issued by after the 15th and 16th sessions of the CCE. The main aim of these reports is to develop a reform agenda by discussing the three main topics which were proposed in April 1995 by Arima, a minister of Education. Accordingly, the following points are argued in these reports:

- (1) Appreciation of the roles of education in the future and roles of school, home, and local community.
- (2) Improvement of connection among schools and individual education.
- (3) Appreciation of the role of education for changing society such as internationalism, information-oriented society and high technological development. (CCE, 1996, p.1)

In this report, based on an idea of ‘*ikiru-chikara*’, a direct English translation is ‘power to live’(Okada, 1999), several issues which have been previously studied are addressed, and a need of great changes in Japanese current education system in many aspects is strongly suggested.

In the following years, we witnessed several amendments which will have dynamic changes in education afterwards. In the CCE report of June 1997, a new school system, so called '6-6 year' (6 years of elementary school and 6 years of secondary school) is proposed to reduce pressure of the competitive entrance examinations. In June 1998, another CCE report proposes '*kokoro no kyoiku*' ('education for the heart', meaning the empowerment of greater autonomy), to promote pupils' personal development rather than academic achievement. By the end of July 1998, the Curriculum Council issued a report about great amendments in the school curriculum (Curriculum Council, 1998; Nihon Kyoiku Shinbun, 1998c). In this report, content of academic curriculum is reduced to provide pupils more time to develop their personal and social skills. In accordance with this report, the Ministry of Education has advocated implementation of five days' schooling a week (now it is six days') from 2002 as a part of the third education reform act (Nihon Kyoiku Shinbun, 1998b). The other significant report concerned with a great reform in the local educational administrative system was issued in September 1998 by the CCE. It advocates a new subject, called "Period for Integrated Study"(Monbusho, 1998d). It basically aims to develop pupils' problem solving skills, allowing each school to organise the contents and topics independently under the control of local educational administrations. In this respect, Japanese education system will be rather decentralised, and this will be a truly great change. Further discussions on a university reform (reported in October 1998, by the University Council) and teacher training (reported in October 1998, by the Educational Council) are under progress (Oishi, 1999).

Apart from looking at these amendments, we should return to examine the two CCE reports in depth. What we should argue in this paper is found in the third point of the CCE reports: "educational role for changing society such as internationalism, information-oriented society and high technological development" (CCE, 1996, p.1). This part should be examined in more detail. This chapter is divided into five sections,

and each section shows: (1) educational role for changing society; (2) internationalism and education; (3) information-oriented society and education; (4) development of scientific technology and education, and (5) environmental issues and education (CCE, 1996).

In the first section, “learning about thinking skills” is described as the most important means of coping with changing society. The main points which are very different from educational reforms so far would be the emphasis on creativity and independence. As Delors (1996) implies, CCE reports that giving knowledge is not enough for the future education.

In the next section, which will be the most important part of this report, CCE argues emerging internationalism and issues which should be solved by taking a global stance.

There are three educational points:

- (1) Developing pupils’ ability to respect other cultures, to have wider view, and to live together with those who belong to other cultures.
- (2) Developing pupils’ identity as Japanese to prepare for international understanding.
- (3) Developing pupils’ knowledge about foreign languages to communicate with others. (CCE, 1996, p. 50)

Detailed instructions for an international understanding education, foreign language education, education for children living overseas and children returning from overseas, and education for overseas students are discussed in this section. For example, team teaching and group work are suggested for detailed implementation. Moreover, teacher training for those needs is also suggested briefly.

In the third section, education for an information-oriented society is described. We should note that this section is updated in respect of coping with quickly changing society of Japan. What we should mention here is educating children to select correct

information from the media, such as newspaper, TV, and the internet. CCE reports the facts of a lack of the introduction of computers in schools, and suggests the development of a network among schools.

In section four, education for development of science and high technology in schools is reported. This is also to cope with the highly technological society.

Finally, another significant issue is discussed in section five. It discusses emerging environmental issues as global issues for mankind.

Following these suggestions, some schools have already introduced radical teaching methods in the classroom, and activities outside school (Nihon Keizai Shinbun, 2000d; Hargreaves and Evans, 1997).

In March 2000, the National Commission on Educational Reform was established and further discussion of Japanese educational reform continues. Although reforms are still under progress, it is possible to find that some arguments in those reforms are relevant to education for the global age as previously described.

It should be concluded, from what has been studied above, that interests for education preparing for the global age are increasing in the third education reform in Japan. Thus it would be worth considering education for the global age in order to create better and more effective education.

In the next section, I would like to describe the education system in England and highlight issues related to the main topic of this study.

2. ENGLAND ~ EDUCATIONAL BACKGROUND

We should start by looking at the social background of England by comparing it with Japan. A total population of the United Kingdom is about 58.6 million (Office for National Statistics, 1997), and it is almost half of the Japanese one. In England there are 51.8 million people, and it is more than 80 percent of a total population of the UK.

Geographically, the United Kingdom consists of islands off the European continent, and the size of the land is about 66 per cent of that of Japan (Diamond, 1995). In 1995 public expenditure on education of the United Kingdom was 5.3 per cent of GDP, 11.6 per cent of total public expenditure, higher than in Japan (UNESCO, 1999). The number of secondary schools in the UK in 1999/2000 was 4,406, of which 3,550 were in England (DfEE, 2000).

Areas in which more specific differences from Japan can be seen are those of ethnic groups and social structure.

First of all, the United Kingdom is a multicultural society, in contrast with Japanese rather homogeneous society. After the first research in ethnic groups of the Census in 1991 (Mackinnon et al., 1996), there were various approaches to studies on migrants. In various research methods, such as dividing people by skin colour, or by country of origin, the ethnic groups in the United Kingdom are categorised as: White; Black Caribbean; Black African; Black Other; Indian; Pakistani; Bangladeshi; Chinese; and Other. Although there are immigrants in the White category, most studies divide White as the majority group and others as minority groups. As we can see in figure 4, there are various ethnic groups having various cultures in the United Kingdom.

Figure 4.

Ethnic Composition of Britain's population	
Ethnic Group	%
White	93.6
Black Caribbean	0.9
Black African	0.6
Black-Other (non-mixed)	0.2
Black-Mixed	0.3
Indian	1.6
Pakistani	1.0
Bangladeshi	0.4
Chinese	0.3
Other Asian	0.3
Other-Other	0.2
Other-mixed	0.4
Total ethnic minority population	6.4

(Source: Office for National Statistics, 1999, p. 34)

The second point which is worth mentioning here is social status in the United Kingdom. While there is no general conception of social classification in Japan as Stephens (1991) cites, there exist the terms of 'working class' and 'middle class' in Britain. However, it is also true that these terms have varying definitions. According to research on people's subjective opinion on social class, about 65 per cent people are 'working class', and 30 per cent are 'middle class' (Mackinnon et al., 1996). On the other hand, common educational research is based on people's occupations, and results show 57 per cent are 'middle class', and 43 per cent are 'working class'. In both cases, results shows there is a common idea on social class in the United Kingdom, and it makes a good contrast with Japanese sense on social classification.

In the next section, I would like to examine educational movements in England.

2. 1. THE 1944 EDUCATION ACT

In general, education in England has often been affected by political agendas, and has experienced many educational reforms and acts. Amongst those various educational reform acts and reports in England, the two more important reforms occurred in 1944 and in 1988. Although describing these reforms might not be the main aim of this section, it would be worth mentioning them from the points which relate to the main topic of this study.

It will be good start to look at some main points of the 1944 education act (the Butler act). The act outlines its aims as follows:

“to promote the education of the people in England and Wales and the progressive development of institutions devoted to that purpose and to secure the effective execution by local authorities, under his control and direction, of the national policy for providing a varied and comprehensive educational service in every area.” (Pring, 1989, p. 4.)

According to these aims, more systematic education for children was implemented. First of all, an official system was developed where the ministry of education took responsibility for all stages of education, and Local Education Authorities (LEA) moved under the control of the ministry of education. In addition, basic stages of education were also determined by this act; schools were divided in three stages (primary for 5 to 11 years old, secondary for 11 to 15 years old, and further education from 16 years old). One of distinctive features is that this system in England created various alternatives to continue pupils' education: three kinds of secondary schools were set up: grammar school, technical school, and secondary modern school. This

system, the so called tripartite system of secondary education was the main characteristic of the reform. It also included a selective system, so children were divided into each school by the result of the 11 plus examination. This continued as the basic education system in England until the 1970s.

What we should note here in this study would be the social background of the 1930s and 1940s. From the 1930s, economic crisis, such as unemployment and poverty, had already risen as a serious issue in the United Kingdom. Whilst the United Kingdom entered the second world war in 1939 as one of the major countries, economic recession continued afterwards (Barnett, 1972). As a crucial result, by the end of the war, the position of the United Kingdom was no longer strong as before in economic terms. By recognising such a regrettable situation, political leaders of major parties agreed to the introduction of secondary education for all systems without major policy conflicts (Chitty, 1992). They believed educating all children was one of the solutions needed to create the new world and ward off this poor situation, therefore the reform expanded successfully (Barnett, 1972; Hennessy, 1992). Added to people's increasing fear of war was the need for social welfare, so the British position in the world economy might make them support the reform act of 1944. In other words, we could say that they implemented this reform by taking a global standpoint.

In the 1960s, however, the tripartite system of secondary education came under increasing criticism, and was gradually replaced by a system based on comprehensive schools (Pring and Walford, 1997).

In the next section, I would like to describe the 1988 education reform act by looking at political and economic aspects, and its significant influence on attitudes towards education for a global age in England.

2. 2. THE 1988 EDUCATION REFORM ACT

First of all, it would be worth explaining the 1988 education reform act briefly. We could say that the 1988 education reform act was partly caused by political conflicts and the economic position of Britain. After the 1944 education system survived around two or three decades with the general agreement of major parties, the movement for facilitating change occurred gradually.

There were lots of factors which accelerated the 1988 education reform act. First, political disagreement occurred around the 1970s (Kavanagh, 1990). A series of five *Black Papers*, which was published between 1969 and 1977, criticised progressive primary education and the rise of comprehensive schools in the 1960s and 1970s (Pedley, 1978), and emphasized a return to more didactic teaching methods (Chitty, 1992). In addition to this, the political left wing criticised the paucity of expansion to the working class. Moreover, the economic recession of 1973 to 1975 seemed cynically to support the idea of the right wing that implied cutting down expenses on education. Among general people, the declining number who supported the post-war policy for education suggested the need for the new agenda (Green, 1987). Moreover, even among educators, there were some doubts about the education system, such as lack of the school curriculum, low standards of students' performances, and lack of preparation for the future economically, psychologically and personally (Pring, 1989). In economic terms, the impact of a continuous recession (see figure 5) would make British people consider a "new" system in everything, including in education.

In some respects, we could say the new movement occurred in a similar way to the 1944 education reform.

Figure 5.

Comparison of gross national products per capita in Japan, UK, and USA.

(In US dollars, Atlas methodology.)

	Japan	UK	USA	World
1970	1,950	2,220	4,970	840
1980	9,830	8,020	11,990	2,590
1990	25,890	16,060	21,790	4,210

(Source: World Bank, 1992, pp. 4-5, pp. 348-349, pp. 624-625, pp. 628-629)

During these controversial issues, the Conservatives won the general election in 1979. The New Right agenda, led by Margaret Thatcher, reflected on the new reform act in 1988.

Now we should turn to look at the contexts of the new reform. Although there are many changes brought about by this reform, I would like to describe some of the key issues.

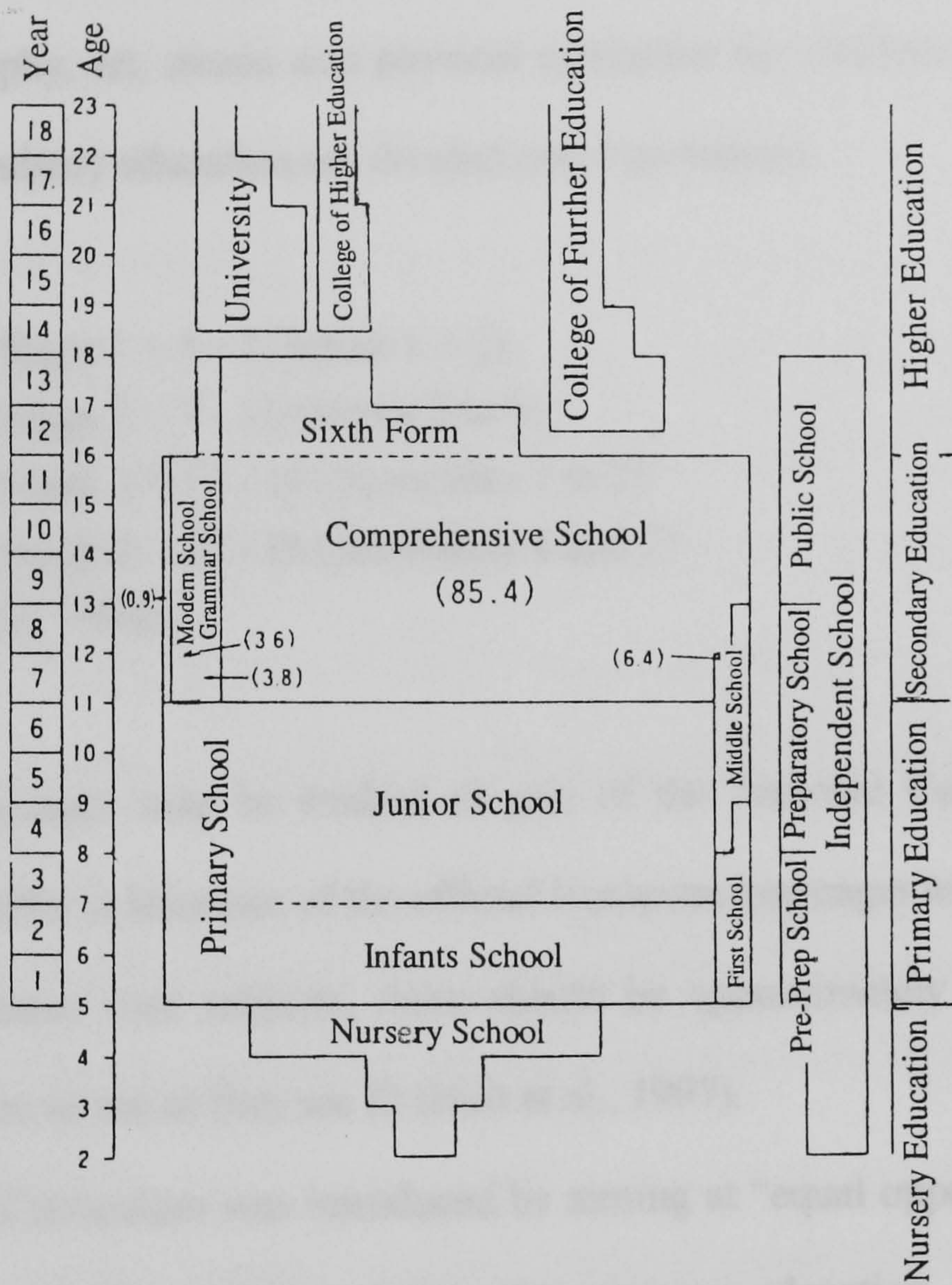
First of all, a national programme of testing was introduced at the ages of 7, 11, and 14, held by the School Examinations and Assessment Council (SEAC) (Chitty, 1992). The difference from the former controversial eleven plus examination which aimed to select and divide children according to their knowledge might be that these testing systems aim to record pupil's progress and performances (Lowe, 1988). Students would be set the levels of GCSE, according to results of these assessments. Moreover, most secondary schools, except for grammar schools, accept pupils regardless of their ability. Some maintained schools specialise in a particular area, according to the 'Specialist Schools Programme'. There also are 15 city technology colleges which specialise in a particular area, supported by sponsors in industry (Holt, et al., 1997). More detailed information about school system is illustrated in the figure 6.

The next point we should mention here is the diminishing of LEA's influences on primary and secondary schools. There exist schools out of LEA's control, such as Grant

Maintained Schools (GM Schools) and reduced control through the Local Management of Schools (LMS). This situation suggests a more centralised system of education, and it is still one of the controversial issues of the 1988 reform act (Chitty, 1992). Compared with the Japanese education system, the school system in England is rather a multitracking system and has many ways for children to go on (see figure 6).

Figure 6.

(Monbusho, 1997b, p. 163; Monbusho, 1998b, p.101)



"To promote the spiritual, social, cultural, mental and physical development of pupils at the school and at home, and to prepare such pupils for the opportunities, responsibilities and experiences of adult life." (QCA and DfEE, 1998, p.13)

Teaching methods and materials are decided by the class teacher, in consultation with

Lastly, the greatest impact of the 1988 curriculum would be the introduction of the National Curriculum.

The 1988 education reform act led to a compulsory curriculum in England which consisted of the National Curriculum and religious education. The National Curriculum set up ten compulsory subjects: three core academic subjects, English, Mathematics, and Science, and seven foundation subjects, a modern foreign language, technology, history, geography, art, music and physical education for children aged 5 to 16. The stages of compulsory education are divided into 4 as follows:

Key Stage 1 = 5 - 7 (Infant 1 + 2)
Key Stage 2 = 7 - 11 (Junior 3 to 6)
Key Stage 3 = 11 - 14 (Secondary 1 to 3)
Key Stage 4 = 14 - 16 (Secondary 4 and 5)
(DfEE, 1998a)

Up to 19 languages may be studied as part of the National Curriculum, of which schools must offer at least one of the official European languages to their pupils. Added to these academic core subjects, there should be approximately 20 per cent of the school time free to use as they see fit (Holt et al., 1997).

The National Curriculum was introduced by aiming at “equal opportunity for all”, and this tendency would be similar to Japanese post-war education. Added to academic aims, the Act also mentioned personal and social education as is also implied in the aims of the school curriculum as follows:

“To promote the spiritual moral, cultural, mental and physical development of pupils at the school and of society; and to prepare such pupils for the opportunities, responsibilities and experiences of adult life.” (QCA and DfEE, 1999b, p.12)

Teaching methods and materials are decided by the class teacher, in consultation with

the headteacher and the head of department or faculty (Holt et al., 1997). Basically, there are no prescribed texts for secondary pupils.

As for assessment methods, there are mainly two methods used in secondary schools in England. One is teacher assessment, which is rather internal, and the other is national tests which are external. Teacher assessment includes oral, written and practical work in class, as well as homework and school examinations and tests. National tests include English, mathematics and science. At the Key Stage 4, evaluation is normally set by General Certificate of Secondary Education (GCSE) examination, and there are no regulations about the minimum or maximum number of subjects to be taken. There are five GCSE Examining Groups which arrange the examiners and standardise the system under the control of The Joint Council for the GCSE. In addition, there is an alternative qualification at the end of secondary school, called General National Vocational Qualification (GNVQ) which is currently being introduced and has rather vocational aims (Holt et al., 1997). The detailed information on GNVQ will be described in the following part.

Here, it will be important to briefly note post-compulsory secondary education in order to compare it with the Japanese system, although it is not under the control of the National Curriculum.

After the Key Stage 4, students remain at school or transfer to sixth-form college for academic pursuit, or further education college for vocational training. Those who attend academic courses will take further qualifications called General Certificate of Education A-levels (GCE A-levels) or General Certificate of Education Advanced Supplementary examinations (GCE AS examinations). The QCA is the regulatory body for GCE examinations and there are five examining boards in England at the moment. Those certifications can be considered as the qualification to follow higher education at university, and the Universities and Colleges Admissions Service (UCAS) is the central body for admission to universities (Holt et al., 1997).

Lastly, the latest government involvement in secondary school education should be noted briefly. As the latest movement, the Labour party which won the General Election in 1997 sets its highest priority in education. To explain the new government's high interest in education, there are no suitable words but the following quotation:

“Education, education, education.” (The Prime Minister Rt Hon Tony Blair MP 1997, in Rafferty, 1998)

According to this New Labour's greatest priority, the Department for Education and Employment (DfEE) sets educational targets such as restoring the role of Local Educational Authorities (LEAs), raising standards in its White Paper “Excellence in Schools” (DfEE, 1997). For example, in this paper, the government has announced a target suggesting that 75 per cent of all 11 year olds will reach the standards in mathematics by 2002, and 80 per cent of all 11 year olds will reach the standards in English (DfEE, 1998b).

Here a brief description of the functions of some key organisations should be indicated. The Qualifications and Curriculum Authority (QCA), established by the Education Act 1997 which has now replaced the School Curriculum and Assessment Authority (SCAA), is consulting on regulations for school based target setting and the national standard information for supporting school improvement (DfEE, 1998b).

DfEE, which is the central government accountable for planning and monitoring the education service in England, publishes guidance to assist LEAs and schools. As previously stated, the basic function of LEAs is only to ensure sufficient deliberation of the National Curriculum, under control of the central government.

As we have seen, the education system in England is now centralised under the National Curriculum. What we should note before moving to the next section is that the governmental policy in England seems to move to completely opposite direction from

the one in Japan (Green, 2000).

Apart from the general movements in education in England, I would like to describe some points related to education for the global age from the National Curriculum in the next section.

2.3. EDUCATION FOR THE GLOBAL AGE IN THE NATIONAL CURRICULUM

Although the core subjects, such as Mathematics and English, are important aspects of education for the global age in this study, other important aspects such as global education and world studies are not easily found in the present National Curriculum in England. Nevertheless, in this section, I would like to describe some positive aspects for education for the global age in the National Curriculum.

First of all, we could find lots of targets constructed by international, global points of view in the National Curriculum. To take some examples, in document 1, the reform emphasises educating for “responsibilities as a citizen towards the community and society nationally and internationally (The Runnymede Trust, 1995, p. 14.)”.

In other documents, for example document 4 and 8, the National Curriculum supports the teaching of emerging significant issues such as environmental issues, and positive attitude for other cultures (The Runnymede Trust, 1995).

Moreover, the National Curriculum Council emphasises the importance of studying the following issues:

“Human development and culture from different perspectives, international and global issues, and the origins and effects of racial prejudice in Britain and other societies (Document 7, in The Runnymede Trust, 1995, p.14.)”.

All of these imply the need for citizenship education, environmental education, and multicultural education or human rights education, which I would include as aspects of the education for the global age.

Added to these suggestions, what we should note here would be found in cross-curricular themes and issues as part of the whole curriculum (Farrell et al., 1995). As Inman (1991) suggests, “the cross-curricular themes relate to important aspects of pupils’ experience and of the world in which they live” (p. 6). Although some of them are already mentioned, it includes the following themes:

1. economic and industrial understanding
2. careers education and guidance
3. health education
4. education for citizenship (individual, family, community, national, European and international, including legal and political dimensions)
5. environmental education (Saunders et al., 1995, p. 2)

In addition to these themes, six cross-curricular skills should be taught in schools:

1. communication skills
2. numeracy skills
3. study skills
4. problem-solving skills
5. personal and social skills
6. information technology skills (Kyriacou, 1997, p. 150)

More recently, the government policy particularly emphasises vocational training (DfEE, 1998b). According to this, a new course has been piloted in schools. The new course, called the Part One GNVQ, is designed for pupils aged 14 to 16 and is introduced in all schools from September 1998 (Holt et al., 1997). It has been reported

that GNVQs are increasingly popular with students (TES, 1999b). Moreover, it should be noted that A-levels in subjects such as Business Studies have become popular among students (Beck and Earl, 2000). There is also a system called education-business links, which encourages pupils to prepare for the world of work. One of the main activities of education-business link is to provide pupils with work experience, and it is supported by the Education Act 1996. As Kyriacou (1997) also argues, the National Curriculum Council implied preparation for adult and working life through these themes.

It should be noted here that this government policy influences not only pupils but also adults, who need further vocational training. There is another report on educational policy which emphasises that schools should play the most important role to tackle poverty, crime and unemployment by connecting strongly with communities (Rafferty, 1998). This means that lifelong learning as a mean of vocational training is strongly supported by the current government policy. The detailed information will be described in chapter 3, section 1.3.

In addition to this, the current movement in post-compulsory education should be noted here. In the current movement, the QCA proposes the graduation certificate which is closer to the International Baccalaureate. The IB requires six subjects, research for a 4,000-word report, and outside activities including community service (Cassidy, 2000). This movement should be taken as one of the movements towards education for the global age.

After the recommendations of the Dearing Report of 1993, slimming down the size of the National Curriculum has been implemented. More recently, the revision of the National Curriculum, which took effect in September 2000, implies more flexibility and diversity in the curriculum. Hence, there is a new emphasis on innovative programmes of learning activities out of school hours, work-related learning and information and communications technology in school education (Gardner, 2000).

Moreover, there is an introduction of a non-statutory framework for the teaching of Personal, Social and Health Education (PSHE) throughout all Key Stages, and from 2002, Citizenship Education will be a new Foundation Subject at Key Stages 3 and 4 (Beck and Earl, 2000). The introduction of these two educational activities is strongly related to this study, and this arrangement suggests education in England trying to prepare pupils for the global age.

It will be worth noting here that further reforms in the programmes for teacher training are considered, in accordance with the above changes. These are, for example:

1. The reshaping of programmes of teacher training as a more school-based activity;
2. The inception of specialist training for prospective headteachers and co-ordinators of special educational needs provision;
3. The creation of a new grade of Advanced Skills Teacher;
4. The proposed reformation of career structures for classroom teachers;
5. The recent inauguration of Educational Action Zones constituted by small groups or 'families' of local secondary schools, working together with feeder primaries, local parents, business interests and local education authorities (Gardner, 2000, p. 7).

As we have seen here, there are some aspects supporting environmental, multicultural and human rights education, which I would describe as parts of the education for the global age.

It should be concluded, from what has been said above, that we can find many positive movements towards education for the global age in both countries. However, there is a further point which needs to be clarified: What is the global age? And what is education for the global age more specifically? In the next chapter, I would like to give definitions of these terms.

CHAPTER 2

DEFINITIONS

The aim of this chapter is to define the important terms used in this study. In the first section, which will mainly examine the global age, I would like to highlight some significant aspects of it, such as worldwide issues. Section two will be the most important part of this chapter, which discusses education for the global age.

Through this chapter, I would like to demonstrate the significance of education for the global age.

SECTION 1:WHAT IS THE GLOBAL AGE?

First, the exact meaning of ‘the global age’ in this study should be explained. The usage of “the global age” has already been found in the 1970s. For example, *Schooling and Citizenship in a Global Age* by Lee (1979) and *Schooling for a Global Age* by Becker (1979) were published in the USA (Becker, 1983). Nowadays educational studies relating to ‘the global age’ are increasing, as can be seen by using this term in searching data base of educational studies such as BIDS. In this study, the global age is described as follows:

The global age refers to the present time when there are many emerging events and situations which people have to face globally: Nowadays people of different countries come into contact with each other much more than in the past; many issues such as the environment, human rights, conflicts between and within countries, are discussed at an international level; the Internet has speeded up access to information produced in other countries; the ethnic mix of people living in many countries has increased; more people than ever before travel, study and

work abroad.

It is this description that will be used during data collection in this study. It will be helpful to quote other descriptions of a global age in order to understand the meaning of the global age more precisely.

Laingen also interprets a global age as a greater expansion of “the speed and ease of transportation, rapid communications technology, the interdependence of world economies” (NASSP, 1990, p. 36).

Tada (2000) describes it as “the age when people meet other people, understand each other, enlighten each other, support each other and live together” (p. 3).

We should look at another example, which describes what the global age is in linguistic terms. Albrow (1996) authorises the usage of the global age as follows:

“We have to listen to the languages of the new age in a wider discourse. It resounds most in ‘global’ and all its variations: ‘globalization’, ‘globalism’, ‘globality’ and others. They are labels for new perspectives, styles, strategies, forces, interests and values which do not necessarily make novelty a virtue and which in numerous ways replace the directions of modernity. They signal the comprehensive transformation which is what historians have recognised as a change of epoch.” (p. 9)

“In the 1990s, we can listen to the new age in the street. Equally, just as the name for the Modern Age arose from the discourse of the period, so the name for the new epoch is already equally in the public mind. Can it be anything than the ‘Global Age’?” (p. 80)

Another point of the global age in this study is that, it is not equivalent to terms such as ‘the twenty-first century’ (which when this study began meant ‘the next century’), and ‘future’. The global age is about ‘now and the near future’ in chronological terms.

A difference among these terms should be explained in depth. The term ‘the global age’ does not limit its meaning as to the next new era, while terms of ‘the future’ and

‘the twenty-first century’ do. The global age includes not only the near future, but also the present in this study. Using ‘the future’ would be too large and uncertain to define in this study, since no one can predict what will happen in the future, what the future is like nor can say ‘what type of education’ is better, or the best. For the same reason, using ‘the twenty-first century’ will be too narrow, since education discussed in this study includes some significant pedagogical issues, which have been used in past centuries.

More importantly, the term ‘the global age’ implies that everything which we should deal with now and in the future needs to be considered in a ‘global’ scale. In many areas such as politics, economics, and sociology, it is the time or ‘the age’, to be considered by ‘global’ scale.

For example, Graham (1999) cites the global age as follows:

1. The world is in a state of transition to a new age in which nation-states are compelled to address certain problems of a global nature.
2. Some global problems now threaten the viability and integrity of the planet, and place in jeopardy the wellbeing of humanity and other species.
3. Those problems are beyond the capacity of any country, no matter how large and powerful, to solve alone. (Graham, 1999, p. xxv)

For another example, Eggleston (1999) describes how society, especially in Western countries, has moved from the Agrarian model to the Industrial model in the past years. According to such transition of society, its scale has broadened from a local to a national one. However, we are presently witnessing another social shift: the Technological model. Accordingly, its scale is beginning to move from a national to a global one. Eggleston implies the third social shift which has a global scale indicates that we are in the global age.

On the other hand, there is a significant argument for defining the term of the global

age. As some people might point out, we have already been in the global age for years. To take some examples, anthropologically, human beings have moved through the earth since its origin. People have exchanged goods with overseas countries for centuries in economic terms.

Those who have negative views about globalization in economic terms analyse all the talk about 'globalization' as only "just talk"(Giddens, 1999a). They argue that the global economy is the same as that which existed at previous periods, no matter what benefits and tribulations it provides. In addition, they criticise that external trade provides only a small amount of most countries' income. Moreover, most economic exchanges are conducted in limited regions rather than truly worldwide. For instance, trading blocs can be generally divided into the European Union, Asia Pacific and North America (Giddens, 1999a).

Nevertheless, nowadays those who talk about globalisation in the economy should not ignore these emerging world wide issues, since they will seriously influence economy of all countries, namely, on a global scale.

For instance, it is hard to remark that we have been wise enough to recognise many common problems among human beings such as environmental pollution or increasing population before, the past industrial society. In addition, it is almost impossible to imagine that in the past traders knew that the massacre of a large quantity of animals would cause their extinction. In the same way, few people worried about the consequences of a rising birth rate, nor worried about excessive deforestation causing environmental damage. It was not until the second half of the 20th century that studies revealed these to be world wide issues, and Giddens (1999b) states we are now facing "risk situations" in many aspects which no one in previous history has confronted. The discussion of global economy should be argued by looking at various aspects in the world.

As already cited, the more human development grows, the wider its scale becomes.

Moreover, its speed is incredibly fast, thanks to technology. As Eggleston (1999) defines, the technological society enables us to act in a global scale. Such phenomenon, as many call it ‘globalization’, which refers to the compression of the world and the intensification of consciousness of the world (Robertson, 1994), now influences not only economic but also technological and cultural aspects of our daily life. In other words, as Brown (1999) states it is “an irresistible and irreversible process beyond the scope of human agency to resist (p. 3)”. Accordingly, these discourses lead us to find ourselves living in the global age.

I, therefore, would like to regard ‘the global age’ in this study as different from how this term could have been applied in past centuries, e.g. the Roman Empire 2000 years ago, or the British Empire 100 years ago. Its scale is wider, its speed is faster and it includes more vital issues for human beings.

From this viewpoint, I would like to examine some aspects of the global age in the following parts.

1.1. WORLD-WIDE ISSUES

The more human activities develop throughout the world, the more worldwide issues emerge. In the following parts, I would like to show some emerging issues which should be addressed on a global scale. Although all topics link closely, I divide them into four parts; war and peace, poverty and development, population growth, and the environmental issues.

After considering these world-wide issues, I would like to describe some key points such as economy, technology, society, politics and humanity in the global age.

1. 1. 1. WAR AND PEACE

Science and technology have expanded rapidly. Scientific discoveries have led to a more comfortable and safer life in many ways. As Dalin and Rust (1996) comment, technological innovations, such as X-rays (1897), automobiles (1900), telephones (1901), tractors (1907), radios (1922), commercial air travel (1936), penicillin (1939), and harvesting combines (1939), fundamentally changed our life styles. However, we have to say that these developments are neither always used in sensible ways, nor have their advantages been extended to the whole of the world.

Unfortunately, technological developments can also be clearly seen to have had more negative effects, such as in the creation of weapons capable of killing enormous numbers of people. Even after the second world war, which used the atomic weapon for the first time, there is a cruel fact that we should know: although the death toll in the last world war was 50 million, since 1945 some 23 million people have died in around 150 wars (Delors, 1996). Moreover, according to a report of Yoneda et al. (1997) in 1995, racial conflicts have continued for more than 30 years in Angola, 17 years in Afghanistan, 11 years in Sri Lanka, and 7 years in Somalia. At present, there exist many refugees in Palestine, Rwanda, and Albania and elsewhere because of conflicts. As a result, the problem of so called 'political refugees' has become a serious issue around such areas (Delors, 1996).

Although there are many treaties between countries asserting the right of self-defence, such as the North Atlantic Treaty Organisation (NATO) (1949), Australia, New Zealand and the United States (ANZUS) (1951), Southeast Asia Treaty Organisation (SEATO) (1954~1977), Central Treaty Organisation (CENTO) (1959~1979), these are virtually recognised as military alliances. Moreover, there are some movements for disarmament such as NPT (Nonproliferation treaty), SALT (Strategic Arms Limitation Talks), but these treaties partly result in supporting a dominant position of five nuclear

states (USA, UK, France, Russia, and China). Concerning relationships and balances of political and economic powers between countries, it is a significant task for human beings to consider disarmament as an emerging issue for a safe and peaceful society, and for protecting basic human rights.

1. 1. 2. POVERTY AND DEVELOPMENT

After the second world war, there has been remarkable economic growth in many countries due to the effects of the second industrial revolution and rising productivity and technological progress (Delors, 1996). To take an example, Yoneda et al. (1997) state that the mean rate of developing countries economic growth is 4.5 per cent in 1995, and that of developed countries is 2.5 per cent. Moreover, according to Delors (1996), “the world’s aggregate GDP has risen from \$4,000 billion to \$23,000 billion, and average per capita income has more than trebled during that time” (p.70). It is estimated that the percentage of the world’s poor has decreased from 32 per cent in 1985 to 25 per cent in 1995 (World Bank, in Yoneda et al., 1997).

However, problems of the growing population, which will be discussed later, and high inequality between the rich and the poor make things more serious and complicated. It is said that the poor who lack the essential condition needed to live reaches 1.5 billion, which is one quarter of the world population (Yoneda et al., 1997). It is also estimated that 35,000 babies and children die from hunger and malnutrition every day (Dalin and Rust, 1996).

What is more, we have to mention that the disparities between the rich and the poor are increasing. The income disparities between the rich and the poor, both of which occupy 20 per cent of the world population, increased from 30:1 in 1960 to 61:1 in 1991 (UNDP, 1996). To look at this problem from a different viewpoint, the following quotation from the report of United Nations Conference on Trade and Development

(UNCTAD) in Delors (1996) will be helpful:

“The average annual per capita income of the least-developed countries, with a total population of 560 million, is currently falling: it has been reckoned at \$300 as against \$960 for the other developing countries and \$21,598 for the industrialised countries.” (p. 70)

As a result, poverty has an enormous influence especially on women and children. Sadly, 130 million children do not attend primary school, and 70 per cent of them are girls (UNDP, 1996). In addition, this could be one of causes of the increase in numbers of refugees, or “economic migrants” (Delors, 1996). It also can be assumed that such a statistic is not only associated with basic human rights but is also linked with gender issues.

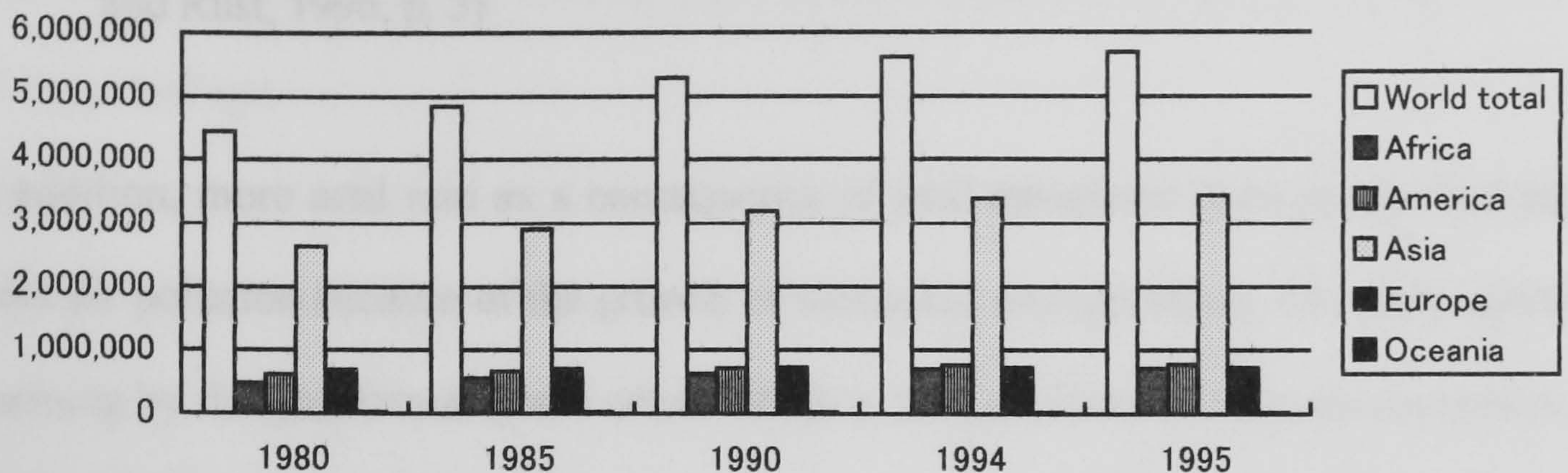
To deal with such a serious situation, some international organisations such as the United Nations and non governmental organisations (NGOs) try to provide economic aid and support for social development (Yoneda et al., 1997). Although education in the developing countries, such as the attempt to improve the literacy rate, is not the main concern of this study, it would be important for all pupils to be aware of such a serious situation which affects over 75 per cent of the whole population.

1. 1. 3. POPULATION GROWTH

We should now look at the growing population which could be another interrelated cause for poverty and refugees. The Population Division of the United Nations Department of Economic and Social Affairs estimates that the world population will grow from 6 billion in 1999 to between 7.3 and 10.7 billion by 2050, with 8.9 billion considered most likely (United Nations Population Fund, 2000). The following figure 7 will describe the situation well:

Figure 7.

Estimates of midyear population (thousands) (Source: UNESCO, 1997, p. 1.1)



As already mentioned, such increases in population rate and conflicts between small nations cause the increasing number of refugees and those who suffer from poverty (UNHCR, 1995). To take an example, it is said that the world's food production can no longer keep up with the rapid growth of world population, and the resources could not sustain the world for more than six weeks (Dalin and Rust, 1996). As always argued, these serious issues are related to the basic human rights which should be guaranteed for all people (Nakanishi, 1998).

Added to these issues, there is another significant worldwide issue for human beings: environmental issues.

1. 1. 4. ENVIRONMENTAL ISSUES

The more human activities develop, the more impact we have on our environment. The seriousness of environmental issues is growing on a global scale. The present situation as regards the environment can be illustrated thus:

“Every year, rainforests die out that would cover twice the land mass of

the country of Denmark.”

“Since 1950, one half of the cultivable land of the world has disappeared because of mismanagement, exploitation, or urban sprawl. The situation will become critical in the next thirty years because the cultivable land will be reduced from 0.7 acre to 0.4 acre of land per inhabitant.” (Dalin and Rust, 1996, p. 3)

In addition, more acid rain as a consequence of acid emissions from power stations, more air pollution because of the growth of motorised transportation, and more global warming by the greenhouse gases effect which is carbon dioxide, chlorofluorocarbons, nitrous oxide, and methane, are emerging concerns as environmental issues (Read, 1994; Whitelegg, 1997).

It is said that studies of environmental issues increased from the 1960s, starting with the publication of Rachel Carson’s *Silent Spring* (Elliott, 1997). Following these academic studies, the conference, called “United Nations Conference on the Human Environment”, was held at Stockholm in 1972. After that, several conferences relating to environmental issues were held.

At the first stage, development and environmental issues are regarded as confrontational issues. However, a report of the United Nation in 1987, “Our Common Future” started to raise the issue of sustainable development (Nakanishi and Nishimura, 1990). As many writers suggest, all countries should cooperate with each other to cope with this serious world situation. Especially, education, which will be discussed later, will have a considerable role in dealing with these worldwide issues.

So far, we have seen the emerging worldwide issues, and their seriousness. We will now go on to look at other features which should also be considered in a description of the global age.

1. 2. OTHER FEATURES OF THE GLOBAL AGE

Although no one can predict what will happen in the future, it will be helpful to consider current movements from various angles in order to provide a more clear view of the global age.

I would like to examine some key aspects of the world situation such as: economy, technology, society, politics and humanity.

1. 2. 1. ECONOMY

First of all, we have already recognised that globalisation of economy abounds in everyday life. The biggest characteristic which separates the present global economy from one in past centuries is that world trade is controlled by electronic money which exists only as digits in computers (Giddens, 1999a). Thanks to the development of high technology, the expansion of world trade is possible at high speed (Hey, 1992). Here, for example, is a passage from Dalin and Rust (1996):

“Restaurants have become more varied and shopping is more international. Tacos are no longer found only in Mexico, sushi is not only in Japan, Canadian crab is found everywhere and Norwegian raw salmon is eaten in some delis in Japan. More than 10,500 McDonald’s fast-food restaurants are found in fifty countries. Ford Escort is sold in fifteen countries. Over 40 per cent of Japan’s tape-recording industry was distributed to newly industrialising countries of Southeast Asia in a two-year period (1985-87). The brand names of Coca Cola, Sony, IBM, Volkswagen, Volvo and Nestle are known by almost all consumers, in every country where inhabitants have purchasing power.” (p. 45)

As a result, growth in world export between 1970 and 1993 was on average 1.5 percentage points higher than that of GDP (Delors, 1996).

In addition, growth of the number of multi-national corporations (MNC) is the result of the interdependency of the world economy (Ishizaka et al., 1994). To cope with such high speed in world trade, some countries establish a united community such as the European Community (EC). In addition, trade agreements between certain countries, such as the North Atlantic Free Trade Area (NAFTA), have taken place at the same time.

Moreover, as the economy becomes more global, the type of work which people do has changed. In the past two decades, there has been a shift from industrial production and a drastic decline in numbers of blue-collar workers, and a rise in service based work in Organisation for Economic Co-operation and Development (OECD) countries, and especially in Norway (See figure 8).

Figure 8.

The Labour Force in OECD countries in the year 1900, 1940, 1990 (for Norway) and 2010

	1900 (OECD)	1940 (OECD)	1990 (Norway)	2010
Land Use	70%	30%	5%	4%
Manufacturing	20%	50%	25%	5%
Service	10%	20%	70%	

(Sources: Drucker (1993), p. 132)

However, the global economy seems to provide benefits only for so called ‘developed’ or ‘industrialised’ countries, such as OECD countries. In fact, as we have already seen in section 1.1.2., the gap between ‘The Rich’ and ‘The Poor’ is increasing, and ‘economic immigration’ occurs around so called developing countries.

The crucial results from such economic disparity would make poor people consider the present economic system to be ‘unfair’. None of the poor people can accept others to gain a profit from the economy which they cannot enjoy. On the other hand, the successful countries which follow the ideas of the free-market system, or of Adam Smith (1723~1790), David Ricardo (1772~1823), and John M. Keynes (1883~1946),

do not seem to be positively concerned about the fate of those who are not successful. In addition to this, the present economy has got a shadowy side: that is, the parts of it which are devoted to war. The former Soviet Union, for example, committed 80 per cent of their economy to military production (Dalin and Rust, 1996). However, this kind of economic growth never actually provides benefits to our life, even though it can be one way to reduce the percentage of unemployment in some countries. As we saw earlier, military production solely promotes war and conflicts, so that millions will be refugees.

All these things would make it clear that the most important thing in the global age is economic philosophy (Cleaver, 1997; Kennedy, 1994). As previously stated, the worldwide issues which have been discussed are what all of mankind should be concerned with together. Apart from the economic theory of “the winner” and “the loser”, the main aim of the economic philosophy would need to change people’s attitudes to a “living together” approach. According to this theory, successful countries such as Japan or Germany should consider their economic responsibility to the world more carefully, and assist activities of international organisations such as United Nations Development Programme (UNDP). In this respect, education seems to have a great task which will be discussed later.

1. 2. 2. TECHNOLOGY

From its origin, mankind has expanded by using freely its ability for creating instruments. Especially, after the Industrial Revolution occurred in the UK at the end of the 18th century, technological breakthroughs have supported human development at high speed. High technology, as we have already seen in section 1.1.1., makes it possible for men to move around the world in 24 hours, to communicate in less than one minute by using telecommunications, and provide certain medicines of synthetic

chemicals. We could even live in a space station with mutual co-operation. We could say that our luxurious life totally depends on such technological merits, and cannot be discussed without such technological developments.

However, there are some significant issues which we should note here at the same time.

First of all, we should recognise that the resources to maintain our normal life depending on technology may not last forever. Our technological development so far has been achieved by using 'energy', or 'fuel' in terms of material. In short, the more technology is developed, the more energy we need. Therefore, it is very natural that the growth of global energy use keeps increasing as seen in the following figure 9:

Figure 9.

<i>Growth of Population, Economic Activity, and Per Capita Energy Consumption.</i>				
	1990	2000	2010	2020
<i>USA</i>				
Population	249	262	273	282
Economic Level	20740	27873	33977	41418
Energy Demand	39.9	39.5	37.4	34.8
Per capita energy	58.5	55.0	50.0	45.0
<i>Japan</i>				
Population	124	129	132	131
Economic Level	23190	34327	41844	51008
Energy Demand	8.1	8.5	8.3	7.9
Per capita energy	23.9	24.0	23.0	22.0
<i>West Europe</i>				
Population	431	448	460	469
Economic Level	13180	17713	21592	26321
Energy Demand	31.0	31.9	31.5	30.8
Per capita energy	26.3	26.0	25.0	24.0
<i>East Europe / former USSR</i>				
Population	406	430	450	467
Economic Level	3290	4870	5973	7237
Energy Demand	39.9	41.2	40.7	39.6
Per capita energy	35.9	35.0	33.0	31.0
<i>Rest of World</i>				
Population	4017	4857	5651	6409
Economic Level	770	1254	2043	3328
Energy Demand	4.6	73.2	108.4	149.3
Per capita energy	4.1	5.5	7.0	8.5

Population in millions; economic level as GDP (US\$) per capita in 1989, projected at 5 per cent a year for Rest of World throughout, 3, 4, 3 and 4 per cent per year for the USA, Japan, West Europe and East Europe respectively to 2000 and 2 per cent thereafter; energy demand in billions of barrels of oil equivalent per capita per year. (Source: Shell Selected Paper, Elliot and Booth, 1990 in Read, 1994, p. 86.)

Although there are increasing demands for energy use, it is said that energy resources are not at a high enough level to be able to supply them. Because of such demands, wars and crises have occurred such as the oil crisis in 1973 (Elliott, 1997).

Secondly, as we have already seen, technology has a great impact on the environment (see section 1.1.4.). A few serious issues such as global warming and greenhouse gases affect the ecological system of all creatures in the world.

However, there are some ideas to avoid a miserable future of the world. For example, the idea of sustainable technology is already argued by many writers. This makes the aim of technology: “to devise a set of energy technologies which can meet human needs on an indefinite basis without producing environmental effects” (Elliott, 1997, p. 35). According to this theory, it leads to seven criteria for sustainable energy technology:

1. to avoid the use of fuels which will run out.
2. to improve the efficiency of energy generation and utilisation as much as possible, as an interim measure, while the new sources are developed.
3. to match energy production and fuel choices to eventual end use.
4. to design energy using technology and systems to use energy efficiently.
5. to minimise the local environmental impacts of energy technologies and to trade off those remaining against global environmental benefits of the technology.
6. to avoid extracting more energy from natural flows than the local ecosystem can cope with.
7. to devise technologies so that human activities stay within the energy limits and carrying capacity of the planet. (Elliott, 1997, p. 45)

In addition to this, there are some ideas of technical alternatives to fossil fuels, such as nuclear power, or renewable sources (e.g. the winds and solar heat).

Nevertheless, we should note that there are some critics about 'sustainability' (Whitelegg, 1997), and again imbalance and unfairness between developed and developing countries. However, the most important point is that this issue concerns our common future. Although it would be a very difficult thing to establish rules among all countries, it is a vital issue for human beings to live together on this small earth which is the only one available to us. Here again, education would undoubtedly play a significant role in coping with such a situation.

1. 2. 3. SOCIETY

It is difficult to define what society is. However, we should discuss it as an interrelated topic to the economy, and technology by considering two social aspects.

First, as we have already seen in the above section, the growing development of high technology has changed our everyday lifestyles. What we should note here is that the relationships between the market and technological development have increased the pace of change in society especially in the last two decades (Dalin and Rust, 1996; White, 1997). Although we were previously able to communicate from a considerable distance by using telephones or faxes, now we are using computers because of the huge reduction of their prices as a result of the demands of the market. The media, through not newspapers but the TV programmes, can feed the latest information of the world in a second. As a result, the global economic demands and developments of technology seem to interconnect, and create the modern information-oriented society.

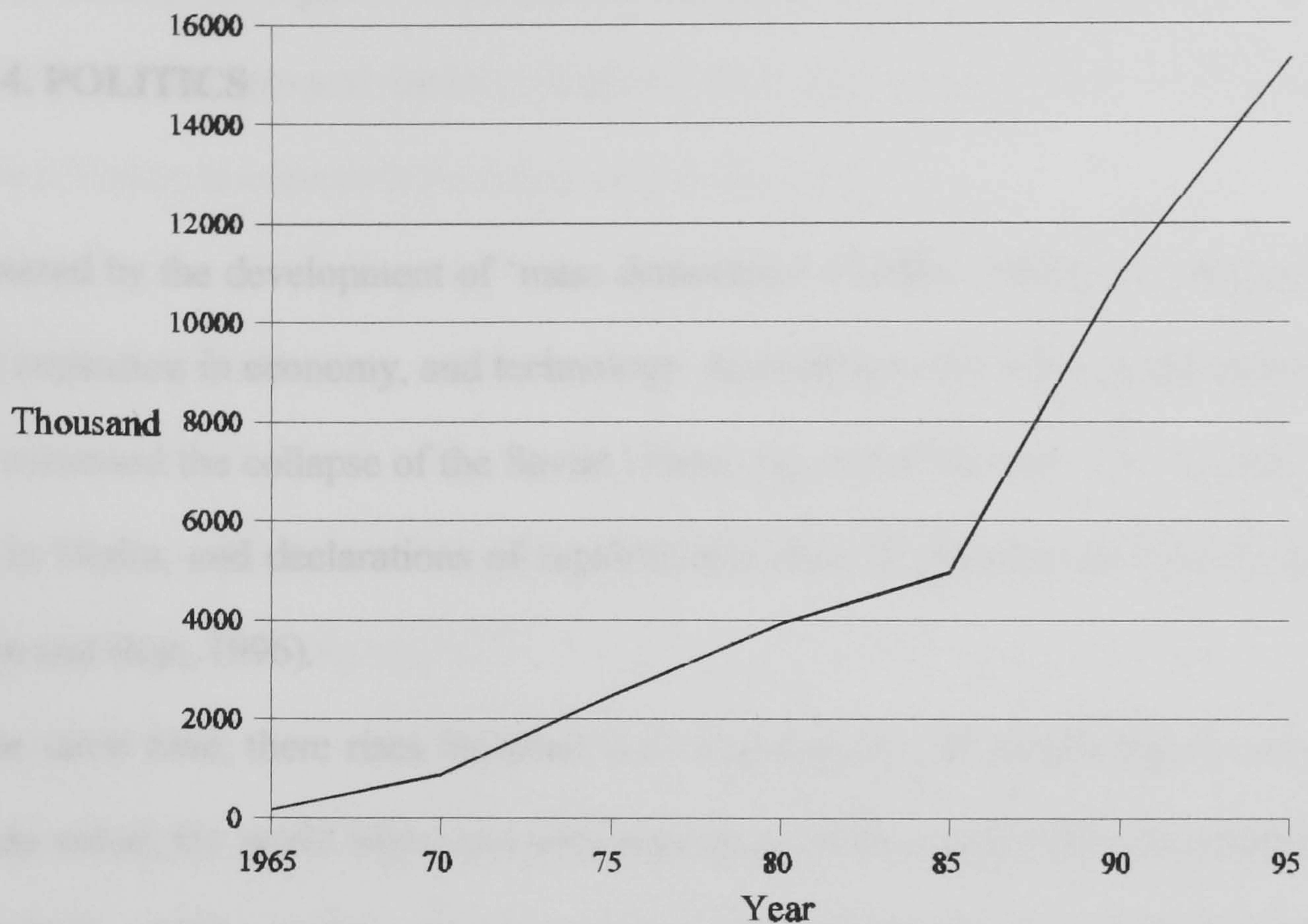
Secondly, we should mention that migration on a global scale results in creating a multicultural society. In the case of Britain, it is said that the impact of Asian

immigration has made British people consider their attitudes towards different cultures. Originally, Britain was made up of many immigrants from European countries, Ireland and Caribbean countries, but British people almost succeeded in making them adjust to “British” society (Sakuma, 1993). However, immigrants from Asian countries, such as India and Pakistan after the immigration policy after the Second World War for the supply of the workforce, had completely different identities from British people, and most of them did not come to see themselves as ‘British’. As a result, they are generally called ‘ethnic minorities’ in Britain, keeping their own cultural or religious identities which are different from British ones. Added to such immigrants, political refugees or asylum seekers moved into Britain. As a result, Britain has multinational people, and creates a multicultural society. As they hold local cultural identities in different parts in the world, people will create more and more multicultural societies not only in Britain but also all over the world.

There is another simple example of multiculturalism. The more global the economy becomes and the more technology is developed, the more people move throughout the world. To take an example, the number of people who visit, work and study abroad is increasing. In the case of Japan, the number of people who go abroad only for sightseeing has increased 10 million for ten years since 1985 (see figure 10). As a result, people throughout the world seem no longer to be able to avoid coming into contact with other cultures.

Figure 10.

The number of Japanese people who visit other countries for sightseeing.



(Source: Yoneda et al., 1997, p. 95)

We can assume here that such British and Japanese cases could occur all over the world, because of wars, economic reasons, or technological inventions which enable people to move through the world easier.

This kind of society does also create problems in terms of maintaining fairness and democracy. For example, the mass media has a great influence on people by means of its information resources. In the same way, the impacts of the Internet are also worldwide. People who choose the information which they need have to be careful, and the same is true for the mass media. In addition, as for the multicultural society, we should consider issues such as racial discrimination, gender issues, and social class (Halsey et al., 1997).

In conclusion, understanding different cultures in order to be able to live in the

multicultural society, and learning values and ethics for obtaining and using the large quantities of information will be important key issues for education for the global age.

1. 2. 4. POLITICS

Supported by the development of ‘mass democracy’ (Toffler, 1990), we witnessed the great expansion in economy, and technology. According to the rules of democracy, we also witnessed the collapse of the Soviet Union, the end of the cold war, the fall of the wall in Berlin, and declarations of republic and state in Central and Eastern Europe (Dalin and Rust, 1996).

At the same time, there rises the great task of politics in the global age. As we have already stated, the world wide issues in many areas such as sustainable development in technology, equity of the global economy, and worldwide issues should also be considered on a governmental level. In fact, there are international organisations such as the United Nations, and NGOs which try to cope with worldwide issues, as previously mentioned. Moreover, as Eagleburger, U.S. Deputy Secretary of State, stated in 1989, “we are moving into a world in which power and influence (are) diffused among a multiplicity of states” (Kegley and Raymond, 1994, p. 3). According to this notion, there is a study of multi-polar systems of power. In accordance with the globalization of many human activities, government policy-makers need to sort things out by coping with international organisations as well as political balances. In many countries, there are already a few studies which consider the complicated interaction of globalization and domestic politics, e.g. Krieger’s *British Politics in the Global Age* (1999), Youngs’ *International Relations in a Global Age* (1999) in the UK. Amongst these academic studies, there are also some striking studies in which policy makers in various countries take part in and contribute to seeking an interaction of power in different nation states (Graham, 1999).

On the other hand, there are some pessimistic perspectives in difficulties of agreements among countries regarding a “sustainable” future (Fischer and Blank, 1995), and a risk of introduction of impacts of politics in education as we can find in the Japanese education of the pre-war period. However it is also needed and unavoidable for political leaders to cope with the issues on a global scale.

1. 2. 5. HUMANITY

Lastly, what we should mention as a characteristic of the global age is the notion of ‘humanity’. By following capitalism, utilitarianism or commercialism in many aspects of human activities, we lost our ability to consider the enormous ecological influences of our activities. Capitalism succeeded in providing a physically high standard of life, but disregarded humanity.

In education, there are a few educators such as Maslow (1987), Rogers (1983), Neill (1964) who believe that the main aim of education is to facilitate pupils’ humanity and they have succeeded developing the humanistic approach in education. The humanistic approach places emphasis on the whole person, on the idea of personal growth, on the pupil’s own perspective and on the notions of personal agency and the power of choice (Kyriacou, 1998).

In reality, however, it is hard to find the effect of whole person education. Lack of humanistic sense comes out as thoughtless behaviour, such as bullying. Added to this, lack of knowledge of other cultures often accelerates racial discrimination, conflicts and wars between and within countries. In various kinds of religions, ideologies, values and standards, and without any humanistic sense, we can get lost in confusion very easily.

I am not going to say that we need to raise the global standard in every area. We need at least, however, to consider a “balance” between human activities, which I have shown

in the above, and humanity. As we have seen, things we should consider such as economic philosophy and sustainable development would concern the humanistic sense as well. In this respect, humanistic education would be another issue for the people who live in the global age. In fact, the Japanese education reform act nowadays is concerned with developing humanistic sense, rather than academic skills (Monbusho, 1998e). In the same way, PSE in the cross curriculum is now regarded as one of the most important issues in England.

Several observations in the last few sections have shown that the global age can be characterised as the globalization of human activities in respect of economy, society, technology and politics. Added to this, the significance of humanity and worldwide issues is that they are characteristic of the emerging issues of the global age. I would say that the future is very uncertain and unpredictable. However, at least we can say that as we have entered into the twenty-first century, there are more issues we have to concern ourselves with on a global scale. That is what I call 'the global age', and it is not about the future, for we have already got into that age and have to cope with that. In conclusion, education, as we have already mentioned several times, will have a great task on its hands coping with the global age. In the next section, I would like to examine what education for the global age is.

SECTION 2: WHAT IS ‘EDUCATION FOR THE GLOBAL AGE’?

Before looking at the details of the key term ‘education for the global age’. I would like to state that the most important theme of education, which never changes over the centuries, is “learning”. Knowledge which can be acquired by learning has always promoted the development of human activities. As Abbott (1994; 1998) states, learning is needed in order to live an enriched, satisfying and productive life. In addition, Delors describes learning as follows:

“A broad, encompassing view of learning should aim to enable each individual to discover, unearth and enrich his or her creative potential, to reveal the treasure within each of us.” (Delors, 1996, p. 86)

However, its objectives change from time to time, ranging from basic to high level objectives (Bloom, 1956). Having been initially the provision of education for all children, the aims of education have moved to raising the standard of knowledge, and nowadays to providing education for coping with a rapidly changing society and worldwide issues. Randall also alleges that what is needed now for education is as follows:

“Because we are now living in a society that is internationalised, our students must know a great deal about communication, including languages, cultures, history, geography, politics, economics, art, religion, philosophy, music, and literature of other countries.” (NASSP, 1990, p. 34)

In addition, Porter (1999) insists on the need for a new policy in education which is fashioned in the light of the spread of globalism.

Moreover, the role of schools as the main conductors of learning in society is also changing. School has operated *in loco parentis* (Abbott, 1994), but now many educators advocate that school is not only for children but also adults. In addition, Albrow (1996) describes education for the global age as follows:

“Education in the global age has ceased to be the transmission of dominant ideas and much more becomes the mass opportunity to participate in the cultural production process. But then quality needs defending on all fronts in all sectors.” (p. 54)

These will lead us further into a consideration: what kind of learning do we need in the global age? For one solution to this question, it is important to see the works of UNESCO (United Nations Educational, Scientific and Cultural Organisation). The works of UNESCO, which will be shown in the following sub-sections, have developed educational ideas with world-wide views. In particular, the Delors report (Delors, 1996) precisely describes what types of learning will be needed in the global age. In this study, education for the global age is described as follows:

Education which well prepare pupils to live in the Global Age as defined at the start of this chapter. The precise nature of the aims, content, teaching methods and forms of assessment are the focus of this study. In particular, however, the focus here is concerned with pupils growing up in advanced technological societies (e.g. England, Japan). The nature of Education for the global age will be different for developing countries.

In the following sub-sections, I would like to illustrate how education for the global age in this study can be linked to the ‘four pillars of education’, defined in the Delors report for UNESCO.

SECTION 2.1: EDUCATION FOR THE GLOBAL AGE ~ THE BASIC IDEA

I would like to show some ideas related to education for the global age in this section.

Part one will show the movements of UNESCO, which has particular relevance to the topics of this study. In the second part, the aims of education for the global age based on UNESCO's latest report will be described.

Through this section, I would like to clarify the nature of education for the global age.

2. 1. 1. UNESCO: CHALLENGES FOR THE EDUCATION FOR THE GLOBAL AGE

We should start by looking at the origin and history of UNESCO. Under the huge organisation, the United Nations, there is a specialised agency called UNESCO (United Nations Educational, Scientific and Cultural Organisation). Its constitution was adopted by the London Conference in November 1945, and entered into effect on 4 November 1946 with 20 member states, including the United Kingdom (The International Bureau of Education, 1996). Japan was admitted to UNESCO in 1951, five years before it became a member of the United Nations (NFUAJ, 1998).

UNESCO, which was established during the second World War, was begun with the hope that humankind would never again undertake such a severe war. Therefore, the main objects of UNESCO are:

“to contribute to peace and security in the world by promoting collaboration among nations through education, science, culture and communication in order to further universal respect for justice, for the rule of law and for the human rights and fundamental freedoms which are affirmed for the peoples of the world, without distinction of race, sex, language or religion, by the Charter of the United Nations.” (UNESCO, 1998)

According to this main aim, UNESCO declared the constitution, with the celebrated preamble, “That since wars begin in the minds of men, it is in the minds of men that the defences of peace must be constructed.” (UNESCO, 1998)

The structure of UNESCO should be illustrated briefly. At the moment, the following activities are operated under three bodies, the General Conference, the Executive Board, and the Secretariat.

- “1. 2,200 international civil servants, professionals and general staff, are members of the Secretariat. Nearly 500 work outside Headquarters in one of 60 UNESCO field offices around the world.
2. 178 of these countries have set up a National Commission constituted of representatives of national educational, scientific and cultural communities.
3. 588 non-governmental organisations (NGOs) maintain “official” relations with UNESCO, and about 1,200 NGOs co-operate on an occasional basis.
4. 3,200 Associated Schools help young people form attitudes of tolerance and international understanding.
5. 4,800 UNESCO Clubs, Associations and Centres promote the Organisation’s ideals and action at grassroots level.
6. 165 Member States have established permanent delegations to the Organisation in Paris.” (UNESCO, 1998)

I would like to move to looking at some significant issues of UNESCO. First of all, as we have already seen, UNESCO’s main object is peace and international understanding. Under this aim, a further significant report was presented at the eighteenth session of UNESCO’s General Conference. It is called “Recommendation Concerning Education for International Understanding, Co-operation and Peace and Education Relating to Human Rights and Fundamental Freedoms” (Kawabata and Tada, 1990). This recommendation made clear UNESCO’s definition of international understanding

education and peace education, and influenced its activities afterwards. The more detailed information on the recommendations will be shown in the following chapter, as one of the significant elements of education for the global age.

Under this recommendation which was regarded as a first common guideline of international understanding, many member states, each with a different ideology, policy, society and economic status reached an agreement. In this respect, the recommendation succeeded in launching education for peace and international understanding. As a result, various approaches to education which are in line with UNESCO's recommendations were undertaken in each country.

However, the activities of UNESCO afterwards went through some degree of hardship. Although UNESCO is one of the international organisations, it could not avoid political disagreements among countries. UNESCO advocated developments of the third world countries and was mainly directed by the Eastern socialist states. On the contrary, the first world countries whose principle was free democracy, such as the UK and the USA asserted their priority and freedom of using information, and denied human rights for certain people in the third world, such as political terrorists in Palestine (Nakanishi, 1998). Consequently, the USA left the UNESCO member states in 1984 and the UK did in 1985, although the UK returned to membership in 1997.

After UNESCO's so-called "lost decade" of the 1980s, international relationships were dramatically changed due to, for example a dissolving of tension between the east and west and the collapse of the USSR (Union of Soviet Socialist Republics). Although there are still political, economic and social arguments among countries concerning agreement of UNESCO's definition, UNESCO leads the new challenge: education for the 21st century. The International Commission for the Twenty-first Century, with Jacques Delors as chairman, submitted the latest report especially relevant to this study. In the next part, I would like to show the aims of education for the global age by introducing the Delors report.

2. 2. AIMS OF EDUCATION FOR THE GLOBAL AGE BASED ON THE FOUR PILLARS OF EDUCATION IN THE DELORS REPORT

A report to UNESCO of the International Commission on Education for the Twenty-first Century was announced in 1996. Following the main object of UNESCO which was already shown in the former part, it listed the challenges to achieve the ideal education for the twenty-first century.

The first ideal point made in this report, made by many educators, such as Lister (in Hicks and Holden, 1995), is that more flexible learning objects are needed. There is another report which points out some of the needs of people living in the global age as follows:

- Lifelong learners.
- Able communicators in both a native and international language (generally English).
- Technologically skilled both for the workplace and daily life.
- Cognitively prepared for complex tasks, problem solving, and the creation of knowledge.
- Politically and culturally aware and responsible citizens. (Hallinger and Leithwood, 1998, p. 4)

To make clear the aims of the education for the global age in this study, I would like to show four kinds of learning described in the Delors report.

2. 2. 1. LEARNING TO KNOW

The meaning of ‘learning to know’ is to combine a sufficiently broad general knowledge with the opportunity to work in depth on a small number of subjects (Delors, 1996).

We should assume that we have already mastered this type of learning. In England the present education which is based on the 19th century style is said to be quantitative and knowledge-based learning. Typically in Japan it causes assessment-driven education, and a too highly competitive educational hierarchy is created as a result.

However, as White (1997) suggests “learning should be a joy of study and exploration rather than a chore to get destination of examination (p. 49)”.

Therefore, what we should emphasise here is the mastering of knowledge as “a basic instalment” to know our situation in the world, to cope with a rapidly changing society, to improve individual dignity, and to communicate for the understanding of each other.

Down (in NASSP, 1990) also notes the significance of basic knowledge as follows:

“All students, regardless of background or vocational goals, can and should master the basic subjects. They are the key to learning to think critically and independently --- the best preparation for responsible citizenship, for making a living, and for engaging in lifelong learning. In one way or another, this includes ‘international education’.” (Down in NASSP, 1990, p. 38)

Therefore, learning to know, such as communication skills, literacy skills, numeracy skills, computer literacy, and general knowledge are required to be taught as education for the global age. In this respect, lifelong learning which is now a controversial issue among educators will be included in this type of learning.

It may be worth mentioning, in passing, that a teaching method including global perspectives needs to be considered for learning to know, as Schwilck states (NASSP,

1990).

2. 2. 2. LEARNING TO DO

‘Learning to do’ aims to acquire not only an occupational skill but also the competence to deal with many situations, and work in teams (Delors, 1996). Few educators but many policy makers and employers advocate that the education system should meet the needs of vocational training. This type of learning will be classified as “learning to do”. To put it clearly, the following skills which are based on ideas of employers in a document entitled *What employers want from the school or college leaver* (White, 1997, p. 34) will be helpful:

1. Specific knowledge.
2. Teamwork: ability to collaborate, manage, resolve conflicts.
3. Work standards: skills to use information, to communicate.
4. Job motivation.

Many political leaders and governments such as in the USA and in England assert that these skills are needed mainly for economic growth:

“ ‘Work harder’ - the solution in an Industrial Economy. ‘Work smarter’ - the solution in a Knowledge Economy. What you earn will, to an ever increasing extent, depend on what you learn” (President Clinton, 1993, in Abbott, 1994, p. 18).

The following statement can be found in the paper by the Australian National Training Authority.

“Training is the key to Australia’s economic future.” (ANTA 1994:3, in Brown, 1999, p. 10)

In the case of England, the government policy recognises lifelong learning as one of the vocational training targets. Here is a quotation from a report of the Department of Education and Employment, called 'Targets for our future' (1998):

“The government’s aim is to make this country both more competitive and a fairer and more cohesive society. Our priorities are to:

- raise standards across education and training, giving particular attention to literacy and numeracy in primary schools;
- make a reality of lifelong learning, in particular encouraging the many adults who have done no formal learning since leaving school to develop their skills further;
- encourage employers - particularly small and medium sized employers - to invest in the training and development of their employees.” (DfEE, 1998b)

However, we should not emphasise too much the vocational training aspects of education. As we have seen in Japanese education, it might be helpful for enormous economic success, but not for the personal development of each pupil. There is a similar criticism among British people as follows:

“ ‘Learning to Succeed.’ Yes, but for what? I understand the need for economic growth but, as a goal in itself, surely it stands as barren and arid? Education stands in danger of seeing people only as tools for economic progress, unless it is accompanied by a vision of individuals as creative, responsible and spiritual, and society as the matrix within which genuine fulfilment is the goal for all. ‘No time to waste’, says The National Commission on Education Report, and I endorse that sentiment. But I would add to it another one: ‘No people to waste’, I believe that at this moment our society is in danger of wasting people. (The Bishop of Ripon, ‘House of Lords, 2 February 1994, Hansard; in Abbott, 1994, p. 30)”

What we should note here is that learning to do is surely a necessity of education for the global age, but the 'balance' and 'value' of education have to be considered. This leads to another aspect of learning, "learning to be".

2. 2. 3. LEARNING TO BE

This type of learning has been declared over the centuries: the 'whole person' education. This fundamental principle - "the all-round development of each individual, mind and body, intelligence, sensitivity, aseptic sense, personal responsibility and spiritual values" (Delors, 1996, p. 94) - should be a non-changeable core of education for humankind.

In the last two decades, capitalism and consumerism may have caused our attitude towards such learning to decline. However, in many countries, such as in the USA, people tend to choose traditional characteristics such as 'a successful young person'.

For example:

"The successful young person is defined as someone who avoids problem behaviour such as substance abuse, delinquency, and early sexual behaviour, and achieves the traditional benchmarks of high school graduation, stable employment and post-secondary education."
(White, 1997, p. 81)

In addition to this, as the Delors commission notes, people living in "the twenty-first century need a variety of talents and personalities." (Delors, 1996, p. 95)

According to this theory, some countries start to introduce this kind of learning in schools. As we have mentioned before, the latest Japanese educational reform aims to promote children's rich sense of humanity (Monbusho, 1998e).

The balance between vocational and humanistic education is surely a necessity of

education. For the last aim of education for the global age, I would like to describe another learning type in the following part.

2. 2. 4. LEARNING TO LIVE TOGETHER

The aim of ‘Learning to live together’ is to develop an understanding of other people and appreciation of interdependence (Delors, 1996). As one of the greatest key issues of education for the global age, this type of learning would be a major issue. To live in a rapidly changing and multicultural society, to co-operate for sustainable development and future, and to cope with world wide issues altogether, social skills to live together will be one of the essentials of education.

Schools will need extra collaboration from families and local communities, since they simply cannot handle everything (Abbott, 1994). As a whole, we need to educate young people in order to develop:

“A positive sense of self, a sense of connection and commitment to others, and ability and motivation to succeed in schools as well as to participate fully in family and community life.” (White, 1997, p. 81)

In addition, to encourage pupils’ recognition of living in the global society, they need to understand and respect other cultures and their values. As Marshall says:

“Students need to understand the contributions and values of world cultures to be able to develop the mutual respect and appreciation required for future co-operation in all fields of scientific and human endeavour.” (NASSP, 1990, p. 35)

These are the four pillars of the aims of education for the global age. Meanwhile, there have already been some subjects studied and established by many educators that relate

to these kinds of learning. In the next chapter, I would like to show studies relating to education for the global age and show the problems of those studies.

CHAPTER 3

STUDIES RELATING TO EDUCATION FOR THE GLOBAL AGE

In the first section, I would like to examine studies in Japan, in England, and in the rest of the world which are relevant to education for the global age. The research review will be shown in this section. In the second section, I would like to describe some problems and criticisms with these studies.

SECTION 1: STUDIES RELATING TO EDUCATION FOR THE GLOBAL AGE

Studies which are relevant to education for the global age have been developed and practised by many educators.

Fifteen kinds of education are dealt with in this section ranging from foreign language education (section 1.1) to World Studies (section 1.15). Each of these have some claim to be part of 'education for the global age' in the way I have defined this. Clearly there are many ways these kinds of education overlap. However, in figure 11 I have attempted to show how I see them located in terms of Delors' four pillars of education. Some kinds of education may be located in more than one pillar.

Figure 11

Studies relevant to the aims of education for the global age.

<i>The four pillars</i>	<i>Studies</i>
Learning to know	Core subjects (literacy, numeracy including foreign language education)
Learning to do	Information and Communication Technology education, Lifelong learning, Humanistic education
Learning to be	Humanistic education, Lifelong learning, Community education, Social Welfare and Health Education
Learning to live together	Environmental education, Development education, Citizenship education, Multicultural education, Peace education, Education for International Understanding, Community education, Global education, World Studies, Human rights education

Core academic subjects such as numeracy and literacy except for foreign language education will not be discussed. Religious education, which is one of the important issues especially in England, will be discussed just briefly in a section on multicultural education.

1. 1. FOREIGN LANGUAGE EDUCATION

It will be helpful to start by looking at foreign language education. Language has been one of the vital tools of human beings from its origin to communicate, trade and develop. There are approximately 6,000 languages in the world, including a dozen which are spoken by over 100 million people (Delors, 1996). The more globalization leads to multilingual societies, the more learning of not only one's own country's native

language(s) but also others becomes important in many respects.

In most European countries, learning foreign languages is taken as an important subject, although it is not so long ago that it was introduced into school curricula (Buttjes, 1990).

In the case of England, a foreign language has become a compulsory subject since the introduction of the National Curriculum. Languages taught in secondary schools are mainly those of the European Union, but they may offer other modern languages if needed (OFSTED, 1999).

First, it is important for economic development. To take an example, French was the most important second language for European countries for its major influence on societies and cultures. However, this is now slightly changing in accordance with a shift of economic power. In England, where a Modern Language is taught from the ages of 11 to 16, the DES document entitled *Modern Languages in the School Curriculum, a Statement of Policy*, published in 1988, asserts a diversification of choices of second languages. It declares:

“The current situation is clearly inappropriate to the needs of a modern trading nation. In trading terms alone, a number of studies suggest that German and French are equally in demand by exporting companies; and that there is also a strong need for Italian and Spanish. A capability in German or Spanish is useful not only to firms operating in Western Europe but also to those with markets in Eastern Europe and Latin America respectively. On commercial and cultural grounds, priority should be given to the main languages of the European Community.”
(Brumfit, 1995, pp. 152-153)

In this respect, we can see how important it is to learn foreign languages for economic reasons.

Secondly, it is said that learning foreign languages can further social and cultural understanding of foreign countries. In fact, some educators have already noted that learning foreign languages increases awareness of how the knowledge of other

languages helps understanding of other cultures (Buttjes, 1990; Morgan, 1993; Wallner, 1995). In the case of England, French A-level assessment of some universities such as Oxford and Cambridge have alternative syllabuses which include cultural aims. For example, “The syllabus puts particular emphasis on.... the varied aspects of French life and culture” (Morgan, 1993, p. 42). In Australia, which receives immigrants from more than 200 countries and consists of a multicultural society, learning about various kinds of languages is encouraged to develop pupils’ understanding of other cultures and of aborigines (Naigai-Kyoiku, 1999).

In this respect, learning foreign languages could also belong to the category, ‘learning to live together’.

In addition, for those who are not native English-speakers, a method of communicating with people from other countries is made possible by using English. While English is not officially recognised as a universal language, its utility in the world has already been well recognised. For example, English is one of the core subjects from age 12 to 18 at school education in Japan. The Ministry of self-government, of Foreign Affairs, and of Education, Science and Culture support a program called JET (Japan Exchange and Teaching Program), started in 1987, to promote more practical English education by receiving assistant English teachers (AET) from native English speaking countries.

As we can see here, learning about foreign languages is much more than acquiring grammar and vocabulary (Kramsch, 1993). It enables people to communicate with others, to help economic developments in a global scale, and most importantly, to learn different social trends and cultures. Hence, it should be one of the core issues of school education. Needless to say, it will become increasingly important for education for the global age.

1. 2. INFORMATION AND COMMUNICATION TECHNOLOGY EDUCATION

As we have already seen in the previous chapter, technological developments enable us to trade and communicate in less than a minute around the world, and enter the global age. We gain a large amount of news and information from around the world by TV and computer every day, at stunning speed. Therefore, the main and indispensable factor of education for the global age might be information and communication technology (ICT) education.

In fact, the significance of ICT in schools is widely discussed around the world. According to the latest report of the Curriculum Council (CC) in Japan in June 1998, its main aims will be (1) to learn how to work using information; (2) to understand the scientific mechanisms of information technology; (3) to educate attitudes towards an information-oriented society (This will mean learning about the ethics of using information technology) (Nihon Kyoiku Shinbun, 1998c). Currently, 36 per cent of public schools (except for private schools) are connected to the Internet (Tokutake, 1998a; Izukura, 1999a). In addition, a report of the Central Council on Education (CCE) in July 1997 suggests all state secondary schools should be connected to the Internet by 2001 (Tokutake, 1998b). Another report by an organisation under direct control of the prime minister suggests all teachers should be able to use computers by 2005 (Koike, 1999). In higher education, a report of the University Council suggests more flexibility in the correspondence courses which can be completed through the Internet (Izukura, 2000b).

Many other countries' governments provide funds for ICT. In England, although the National Curriculum includes ICT, only 19 per cent of all primary and secondary schools were connected to the Internet before 1997. In 1997, The prime minister Tony Blair advocated an introduction of computers and connection to the Internet in all

primary and secondary schools by 2002. Accordingly, the 20 million pounds scheme to help up to a quarter of teachers buy computers was announced (Johnston, 1999). Accordingly, in service education or external training for teachers to use ICT is increasingly popular (Leask and Pachler, 1999). In France, all educational institutions, from elementary to universities will be connected with the Internet by 2000. In Sweden 40 percent of teachers are given a computing project, and in Australia teachers are offered computers at a discount (Johnston, 1999).

The most stunning success of ICT in schools can be seen in the USA. In 1997, 75 per cent of primary schools and 89 percent of secondary schools were already connected with the Internet. They are aiming to increase this to 95 per cent by 2000 (Kanekura, 1998c). In addition to facilities, developing skills to analyse and evaluate a large amount of information is now the main target of ICT in the USA (Passe, 1994).

At the same time, it may be important to note that there is a report which suggests IT can harm children's learning skills. The paper, which is called *Fool's Gold: A Critical Look at Computers in Childhood* by the Alliance for Childhood, criticises software packages especially for very young children, arguing that those tools may disturb developing children's creativity (McVeigh and Walsh, 2000).

Nevertheless, at secondary school level, the need of information and communication technology education will increase all over the world, and will be one of the key elements of education for the global age.

1. 3. LIFELONG LEARNING

As previously stated, lifelong learning is now getting much more attention from educators, policy-makers and employers. However, its significant role for post-compulsory and continuing education, sometimes called adult education, has been already argued for a long time. In Asia, the term meaning 'lifelong learning' can be

found in ancient writing. It appeared in English more than 70 years ago (Knapper and Cropley, 1985). UNESCO has published studies concerned with lifelong learning since the 1970s (Williams, 1977). Studies of lifelong learning have mainly discussed its implementation in higher educational institutions, such as at university (Jarvis, 1999). However, attention to lifelong learning is recently increasing and many educators, including Japanese ones, have started to introduce it at secondary education level.

The aims of lifelong learning can be mainly divided into two parts: either economic targets as OECD (1996) states or humanistic enrichment as Smith and Spurling (1999) note. The former target is sometimes used, for example, in England. As we have seen in chapter two, section 2. 2. 2., policy makers and employers tend to regard lifelong learning as vocational training. In Sweden, the Prime Minister (Mr. Peshion) insisted on implementation of lifelong learning and more than 150 events concerning lifelong learning were conducted in 1996 (Sawano, 2000). In this case, lifelong learning will belong to 'learning to do', which is one of the aims of education for the global age.

In the case of England, for instance, in York which is a historic city in the north of England, the City of York Council provides free copies of a brochure, which shows various kinds of part-time courses for adults. The courses listed in the brochure can be studied at local schools as well as at home (Future Prospects, 2000).

On the other hand, there is another theory that regards lifelong learning as a part of humanistic education, which will be examined later. This theory can be found in the latest Japanese educational reform, and in the terms of community education or adult education in England which will also be seen later. The following statements demonstrate the Japanese policy on lifelong learning:

“In order to build a richly active society in the 21st century, the creation of a “lifelong learning society” in which “people can learn at any stages of life, can freely select and participate in opportunities for study and can have the results of their learning appropriately evaluated” is a vital

undertaking.The concept of lifelong learning entails not only learning activities conducted intentionally in an organised manner in a school or social educational setting, but also includes knowledge gained through participation in, for example, sports activities, cultural activities, recreational activities, volunteer activities and hobbies.” (Monbsho, 1997c)

They regard lifelong learning as being needed for the coming learning society. According to this theory, the Lifelong Learning Council was established in August 1990 in Japan. In that case, lifelong learning can also be put under ‘learning to be’.

In both cases, lifelong learning is definitely a part of education for the global age, and is receiving an increasing amount of attention.

1. 4. COMMUNITY EDUCATION

As already stated, I should make it clear that community education in England equates to lifelong learning in Japan: its aims are the enrichment of humanity. Community education looks at humanistic development with a relationship between community and individuals, or between community and schools (Arthur and Bailey, 2000)

Community education:

“...shares a common heritage with adult education: the Mechanics Institutes, the Night Schools and the less formal classes in village halls and community centres, all providing the only kind of adult education open to the great majority of people in our communities.” (Poster and Krüger, 1990, p. 3)

“Community education has the following broad general aims:

- (a) to involve people, as private individuals and as members of groups and communities, irrespective of age and circumstances, in the ascertainment and assessment of their needs for opportunities to
 - (1) discover and pursue interests;

- (2) acquire and improve knowledge and skills;
 - (3) recognise their personal identities and aspirations;
 - (4) develop satisfactory inter-personal relationships;
 - (5) achieve competence in their roles within the family, the community and society as a whole; and
 - (6) participate in the shaping of their physical and social environment and in the conduct of local and national affairs; and
- (b) to seek to meet these ascertained needs in the most appropriate settings with the co-operation of individuals and groups and by identifying and deploying educational resources, wherever they may reside.” (Poster, 1982, pp. 2-3)

Now we should look at other countries’ approaches. In Italy, the Italian Ministry of Education promotes projects relating to community education. In the case of Italy, community education refer to vocational training for youth to enter working society.

In Australia, community education has existed since the early 1970s. Community education in Australia aims to develop co-operation and understanding of the community, and thus it includes cultural involvement such as multicultural or intercultural issues.

Canada, meanwhile, seems to include all aspects which are seen in other countries: multicultural arts enrichment; vocational training for youth. In addition to this, community education in Canada includes social welfare care such as Child Care Services. The tool for these activities is a Community Development Corporation (CDC) which is organised by local residents, first established in 1976 (Poster and Krüger, 1990).

Community education in Japan, on the other hand, means education which is taught not by teachers but by local neighbourhoods, especially in primary schools. Its idea is based on the new agenda of Japanese educational reform, involving education through school, local community and society. Most cases so far have been dependent on voluntary work by local residents. Although there are various kinds of cases of community education

with aims which are not yet clearly defined, in most cases, it is expected that pupils would acquire lots of knowledge about their local society.

In addition, community education in Japan can involve ‘voluntary education’. This aims to encourage pupils to change their attitudes to older people by helping them through activities at certain agencies. It is not yet included in the school curriculum, but will be seen after 2002, when the new school curriculum will be introduced. As a background to this concept, there is the problem of the ageing population. There is a report which states “the population of over 65s will grow by over 50 per cent, from 11.5 per cent to nearly 18 per cent in OECD countries between 1980 and 2025 (Poster and Krüger, 1990, p. 86)”. We can find the same concept in this respect in Scottish community education based on the policy of the Scottish Community Education Council (SCEC) since 1975.

These approaches to community education in various countries should also be worth including in education for the global age.

1. 5. HUMANISTIC EDUCATION

Amongst many studies about humanistic education, the distinctive works of Rogers (1902~1987) and Maslow (1908~1970) contributed to the development of the “humanistic approach”. We should quote the main principles of humanistic approach as follows:

- “an emphasis on the ‘whole person’ (a holistic synthesis of mind, body, and feelings)
- an emphasis on personal growth (the tendency of moving towards higher levels of health, creativity and self-fulfillment)
- an emphasis on the person’s awareness (the person’s subjective view about themselves and the world)
- an emphasis on personal agency (the power of choice and

responsibility).” (Kyriacou and Cheng, 1993, p. 164)

Although school education changes as society does, humanistic education is likely to remain unchanged for centuries as one of the core aspects of education.

Pupils’ problems, such as school violence, bullying and suicide still can be seen in and outside schools and seem not to decrease in many countries (Kanekura, 1998a). In the case of Japan, the recorded number of violent incidents from primary to upper secondary schools reached 29,685 in 1999, an increase of 25.7 per cent compared with 1998 (Izukura, 1999b). Moreover, the number of students who fail to attend a school for more than 30 days without any particular reason reached 127,694, an increase of 21.1 per cent compared with 1998 (Izukura, 1999b). Not only academic education but also support for these pupils, such as pastoral care, school counselling, and peer tutoring will be a part of education for the global age.

In fact, emphasis of humanistic education can be seen in the latest education reform movement in Japan. The report of the Central Council on Education (CCE) in June 1998 especially stresses the significance of humanistic as opposed to academic education (Naigai-Kyoiku, 1998). The paper also underlines the necessity of school counselling. Accordingly, there are more than 1,500 schools which provided a school counselling service in 1999 (Tokutake, 1999).

In England, Personal and Social Education (PSE) is a very important part of the school curriculum (Farrell et al., 1995). PSE has been increasingly studied by many educators, and this movement has led it to move from a more fragmented provision to a more integrated whole school approach (Best et al., 1995). However, after the 1988 Education Act, teachers have tended to spend more time on academic subjects at the expense of PSE.

Nevertheless, government reports currently announce the need to develop pupils’ skills in group work. Although it is one of the strategies for economic success, skills working

with others will require pupils' personal development. In fact, PSE is strongly supported by the current proposals by the QCA (QCA and DfEE, 1999a and 1999b) while non-statutory guidelines of PSE combined with health education (PSHE) are stated in the new national curriculum 2000 (DfEE, 1999a). Accordingly, guidebooks of PSHE for teachers are also published (Osborne, 2001a, 2001b and 2001c). Judging from this current movement, humanistic education in England is not completely abandoned by the academic requirements in the National Curriculum.

Both school counselling and peer support began in the USA, and are increasingly being included in many countries as part of humanistic education in schools. School counselling encourages pupils' self-actualisation and takes a psychological approach. On the other hand, the unique approach of the peer tutorial, which is practised by senior to younger pupils, originally started as a support for drug and health education. Its approach, which is different from that of professional school counselling, interestingly affects in many ways the humanistic growth of pupils, and is now regarded as a part of PSE in the USA (Good and Brophy, 1987).

Humanistic education can thus also be included as part of education for the global age in this study.

1. 6. SOCIAL WELFARE AND HEALTH EDUCATION

Social welfare and health education are extremely relevant to humanistic education as I have mentioned above. Health education is one of the cross-curricular themes in England (Tones and Tilford, 1994) and is strongly supported in the new National Curriculum from 2000 associated with PSE. Key issues of health education are:

- “sex education (including AIDS);
- drug use and abuse (including alcohol, tobacco and solvents);

- road safety and home safety;
- the value of the family life in society;
- exercise and good health;
- hygiene;
- psychological factors in good health;
- environmental factors in good health;
- nutrition” (Farrell et al., 1995, p. 102)

Although sex education has been a controversial issue in England, the above issues are to be taught in order to develop pupils’ healthy, safer life style (DfEE, 1999a).

These issues are increasingly becoming important aspects of education in many countries. Recently, the ministry of Executive general affairs declared the promotion of drug education in May 1998 in Japan. At the latest symposium held in June 1999, less awareness of teachers was indicated, and the significance of drug education was repeatedly emphasized (Watanabe, 1999). In addition, a guide book for teaching of sex education has been recently published by the ministry of education for the first time in Japan (Kanekura, 1999). In Canada, role-playing education has been introduced as a method of drug education. In New Zealand, counselling for pupils from 10 to 15 years old was introduced in 1996 (Nihon Kyoiku Shinbun, 1998a).

Social welfare is another important educational issue in England (Swaan, 1988). There is the Education Welfare Officers’ support as a part of the social welfare service which was in an HMI inquiry (HMSO, 1984). They aim to examine issues such as home difficulties and school problems which affect pupils’ learning (Farrell et al., 1995). In this case, it is concerned more with human rights, which will be discussed later. Health education and social welfare service, as well as humanistic education, would be some of the important aspects of education for the global age.

1. 7. ENVIRONMENTAL EDUCATION

As we have seen in chapter two, environmental issues are now vital for human. In accordance with increased awareness of this issue, environmental education has attracted attention from not only educators but also political leaders.

When looking at the history of environmental education, it is worth beginning by looking at the Environmental Education Act in the USA, in 1970. It was first agreed by the International Working Meeting on Environmental Education in the School Curriculum at Foresta Institute, and by the congress of the United States (Ishizaka et al., 1994). A statement of B. Ray Horn provided the basis for the following definition;

“Environmental education is the process of recognising values and clarifying concepts in order to develop skills and attitudes necessary to understand and appreciate the inter-relatedness among man, his culture, and his biophysical surroundings. Environmental education also entails practice in decision making and self-formulation of a code of behaviour about issues concerning environmental quality.” (Saveland, 1976, p. 4)

Official actions of governmental organisations followed this. UNESCO held further conferences on the environment education programme and supported International Union for the Conservation of Nature and Natural Resources (IUCN). In these processes, aims which should be included within programmes of environmental education were made clear as follows:

- (1) “To appreciate the varying relationships between man and the environment on a dimension from minimal to maximal human impact as varying with different sorts of exploitive technology, and systems of organising production and distributing products.
- (2) To recognise the checks and break-down points of pre-industrial technologies, both as a topic in its own right and as a point of comparison with environmental problems in the industrialised world.

- (3) To consider the environmental and social effects of gearing third world economies into a global economic and political system.
- (4) To consider how environmental issues are formulated as issues for decision-making (or why they are not), how remedial programmes are constructed, and to whose advantage are particular problem formulations and the suggested solutions.
- (5) To consider the values of other cultures with regard to the environment as an antidote to our own culturally and historically limited thinking.” (Carson, 1978, p. 63)

According to these aims, environmental education has been implemented in many countries. In the USA, there is a challenging teaching strategy for secondary schools to have students learn about global warming by group discussion (Keenan-Byrne and Malkasian, 1997). In the case of England, environmental education is recognised in one of the cross-curricular themes following the Education Reform Act in 1988 (see chapter 1, section 2.3.). Outside schools, environmental education is also supported by pressure groups, such as the National Farmers’ Union and Friends of the Earth, the Women’s Environmental Network and the Royal Institute of British Architects (Younger and Webster, 2000).

On the other hand, there are many problems such as how to define environmental ethics and whether to introduce environmental education in the normal core subjects like geography, or make a new subject only for environmental education. However, it is certain that environmental education has gained attention from many educators as one of the important issues of education for the global age.

1. 8. DEVELOPMENT EDUCATION

It is generally recognised that development education largely started in Europe, Canada and Australia around the 1960s. As the background to its origin, we should note that it was during a period of East-West or North-South armed conflicts such as the Vietnam

war (Osler, 1994). The gap between so-called developed countries and developing countries also had its effects. In this respect, the origin of Development Education was influenced by international political and economic movements.

In the 1960s, in spite of the establishment of United Nations Conference on Trade and Development (UNCTAD) and economic aids to developing countries, Development Education was criticised as a negative education standing by the notion of charity for the ‘developing’ countries (Otsu, 1992). However, due to the endeavour of the United Nations, non-governmental organisations (NGOs) and strong support from churches in the 1970s, the notion of Development Education moved from ‘charity’ to recognising significant issues in the developing countries as world-wide issues and attempting to investigate their causes altogether (Fountain, 1995). Moreover, creating an understanding of the world issues for young people became another significant task of Development Education. With this background, the United Nations offered this definition of Development Education:

“Development education is concerned with issues of human rights, dignity, self-reliance, and social justice in both development and developing countries. It is concerned with the causes of underdevelopment and the promotion of an understanding of what is involved in development, of how different countries go about undertaking development, and of the reasons for and ways of achieving a new international economic and social order.”(Hicks and Townley, 1982, p. 9)

In England, according to Bourne (1998), development education practice is sometimes found within the formal education system, such as adult education, and through in-service training for teachers. There are also several academic studies and handbooks for teachers, such as Fyson’s *The Development Puzzle* (1984) and Jones et al.’s *Development Studies: A Handbook for Teachers* (1977). In Japan, *A curriculum for*

studies of the development issues was published by the Council for Curriculum of Development Education in 1983.

1. 9. CITIZENSHIP EDUCATION

It is said that the notion of citizenship occurred with the emergence of the first democracy in Athens. The need for Citizenship to be expanded to all people was argued by political philosophers such as Locke (1632~1704), Montesquieu (1689~1755), and Rousseau (1712~1778) had contributed to the expansion of civil liberties. After this progress, Broudy defined the democratic citizen as having a moral duty that goes beyond that of citizens in other political systems (Cross and Dynneson, 1994). According to this definition, especially in the USA, educating people for citizenship is regarded as an important burden of the democratic society.

In accordance with many studies on citizenship education, a common definition was received with 70 per cent agreement in 1985 in the USA:

“While an important and central element of the social studies, citizenship education is a responsibility of the entire school. It includes the means by which individuals are prepared to gain the knowledge, skills, and values that enable them to understand, examine, decide and participate in public affairs and in forwarding the well-being of other individuals and of their society.” (Cross and Dynneson, 1991, p. 5)

As can be seen, citizenship education can embrace the areas of community education and social welfare education, which are now increasingly recognised in Japanese and English educational reform (also see chapter 1).

On the other hand, as globalization expands in many respects, the notion of citizenship education moves to global citizenship education, or in other words, world citizenship. There are various academic reports on world citizenship, including one by Parker et al.

(1999). Studies of world citizenship have recently become popular in many countries, including the USA, England, and Japan. Aims of global citizenship education are basically expanded from the former citizenship education, as we can see in the following outline of characteristics of ‘good citizens’:

“Characteristics of good citizens included a propensity for considering opinions different from one’s own, a tendency to espouse democratic rights for all members of society, an awareness of societal problems and a concern to improve them, a certain degree of skill in critical thinking, and a positive self-image.” (Lynch, 1992, p. 37)

In England, citizenship education will be a Foundation Subject at Key Stages 3 and 4 in the new National Curriculum started from August 2002. It is also complemented by the framework for PSHE at key stages 3 and 4. Accordingly, there are several research reports about citizenship education, such as research exploring teachers’ perceptions of good citizenship and educational provision (Davies, et al. 1999). Recently, the Development Education Association (DEA) published guidance for whole-school planning of citizenship education, suggesting ideas for teaching and learning about citizenship in many subjects such as modern foreign languages, history and ICT (DEA, 2001).

There are other sources of guidance and support for citizenship education in England, such as Council for Environmental Education (CEE), Department for International Development (DFID), and Council for Education in World Citizenship (CEWC). Nevertheless, it is said that implementation of citizenship education results in many critical arguments which will be discussed later.

1. 10. MULTICULTURAL EDUCATION

The field of multicultural education partly includes citizenship education. Generally, it is more concerned with racism and human rights in a society where many ethnic minorities exist. To take an example, in England, there are some authors who often use this term to mean anti-racist education or multiracial, multiethnic education (Lynch, 1983; Straker-Welds, 1984; Dufour, 1990). In some cases, it might refer to intercultural education. In addition, it is my view that this education could include Religious Education, which is one of the core subjects in schools in England. I would regard every religion, such as Christianity, Islam, Buddhism, Hinduism, as an opportunity to get to know other cultures and as a way of learning to live together. This point of view is explained by some quotations which show the general curricular aims of multicultural education as follows:

1. “To raise the pupils’ awareness of racism as a key element in the power relation between cultures and as a major influence upon their own and other people’s lives.
2. To increase their knowledge and understanding of the history, cultural heritage, and values of minority ethnic groups within the local community and within the wider context of British society.
3. To enable pupils to adopt a global perspective on issues of contemporary concern and to gain an understanding of multicultural Britain in its world context.” (Nixon, 1985, pp. 36-37)

Basically following these aims, the major official report on multicultural education in England was the Swann Report of 1985 (Mitchell and Salsbury, 1996). After the introduction of the National Curriculum under the Education Reform Act 1988, more effort was put into academic core subjects, resulting in a restriction on multicultural education. However, as Farrell (1990) argues, multicultural education is supported in some documents of the Education Reform Act, such as the general principles which

have already been quoted in the chapter 1, section 2.3.

We should look at other countries' multicultural education. In Australia, where aborigine and European settlers have lived together since their arrival in 1770, multicultural education is taken seriously, for its more ethnic diversity. At the moment, there is a National Advisory Committee on Multicultural Education (NACME) (Mitchell and Salsbury, 1996).

In the USA, where society is highly pluralistic, many initiatives towards multicultural education are implemented. For example, Mitchell and Salsbury (1996) state that:

“a majority of America's 50 states now have formal multicultural education programs, and 28 states have a person who is responsible for such efforts; 20 states also require that prospective teachers meet various types of requirements in multicultural education prior to certification.”
(p. 339)

As a society moves from a mono- to a multicultural, multilingual and multiracial society, understanding of other cultures including religions is also one of the vital needs for people in the global age.

1. 11. HUMAN RIGHTS EDUCATION

As I have already stressed, human rights has significance in many respects. Many educators recognise that human rights education is a key issue for international understanding and peace education (Tarrow, 1987). At the same time, it forms the basis of the many educational studies which have been shown in the above. Therefore, sometimes human rights education overlaps with other theories. Now let me look at its history and concepts.

It is said that the declaration of human rights is firstly found in the declaration of the independence of the Netherlands in the 16th century (Ishizaka et al., 1994). Following

the new educational movement which concerned children's human rights in the end of the 19th century, the Universal Declaration of Human Rights was proclaimed by the General Assembly of the United Nations in Paris on 10 December 1948 (Osler, 1994). This declaration became a manifesto for world development, and it proposed the basis for women's rights, development education and understanding of other cultures as follows:

“the advent of a world in which human beings shall enjoy freedom of speech and belief and freedom from fear and want has been proclaimed as the highest aspiration of the common people.....the peoples of the United Nations have in the Charter reaffirmed their faith in fundamental human rights, in the dignity and worth of the human person and in the equal rights of men and women and have determined to promote social progress and better standards of life in larger freedom.” (Osler, 1994, p. 11)

After the 1974 UNESCO Recommendation which raised important issues regarding human rights education, a number of lawyers such as Levin and members of UNESCO published academic studies and journals on human rights education.

In examining the features of human rights education, we should consider the symposium in Vienna, 'Human Rights Education in Schools in Western Europe' in May 1983. It took place five years after the Committee of Ministers of Council of Europe passed a recommendation about the teaching of human rights. Following Lister's extensive contributions, a significant series of recommendations from the 1983 Vienna symposium was promoted and redrafted as Recommendation R(85)7, called 'on teaching and learning about human rights in schools' in 1985. Osler (1994) cites its significant contents as follows:

“The need to reaffirm democratic values in the face of:

- intolerance, acts of violence and terrorism;

- the re-emergence of the public expression of racist and xenophobic attitudes;

Before concluding:

Believing, therefore, that, throughout their school career, all young people should learn about human rights as part of their preparation for life in a pluralistic democracy;

Convinced that schools are communities which can, and should, be an example of respect for the dignity of the individual and for difference, for tolerance and for equality of opportunity;

Recommends that the governments of member states, having regard to their national education systems and to the legislative basis for them, :

- (a) encourage teaching and learning about human rights in schools in line with the suggestions contained in the appendix hereto;
- (b) draw the attention of persons and bodies concerned with school education to the text of this recommendation.

The appendix consists of six sections as follows:

1. human rights in the school curriculum
2. Skills
3. Knowledge to be acquired in the study of human rights
4. The climate of the school
5. Teacher training
6. International Human Rights Day” (pp. 23-24)

Following this recommendation, many countries introduced human rights education as part of development education and peace education into the curriculum. In Sweden, guidance on human rights education and peace education was issued in 1985. In France, the French National Educational Research Institute conducted a five-year project relating to human rights education and development education (Osler, 1994). In England, human rights education can be studied in higher education (Cole, 2000a and 2000b).

Dowa Kyoiku is regarded as human rights education in Japan, although it may overlap multicultural education in terms of anti-racist education. *Dowa Kyoiku*, a direct translation of which is ‘assimilation education’, aims to foster positive attitudes towards *burakumin* (Hawkins, 1989). *Burakumin* is a small group discriminated against

for long time because of their lowered social status, especially in the Tokugawa Shogunate period. However, *dowa* education is conducted only in west part of Japan, where there are often historical places. In addition, it should be noted that *dowa* education contains rather political thought of the left wing, and it is not regarded as common education throughout the Japanese national curriculum.

1. 12. PEACE EDUCATION

It is said that the study of peace education, sometimes called education for peace (Hicks, 1988), began in early 1950s. Peace education also became the main concern of the UNESCO recommendation in 1974, which will be described in the following subsection. Needless to say, the main aim of peace education was influenced by the horrors of war. The main focus of peace education in the late 1950s and early 1960s was a political analysis of war. In the late 1960s and 1970s, it was influenced by the political events of the time in the world, such as the Vietnam War (Thacker, 1983).

Apart from the history of peace education, the following statement provides the definition meaning of peace education.

“Peace education is confronting young people with the responsibility, which they have, together with their fellow human beings, for the preservation and the humane quality of our world, and inviting and challenging them to realise this responsibility in their own concrete life situations.” (Vriens, 1997, p. 28)

Many researchers on peace education emphasise that it is more than the absence of war. They insist on building up a just and humane world which would include:

- “politics without violence;
- a positive attitude to conflicts and willingness to manage these conflicts

- without violence;
- relationships with others on the basis of trust instead of distrust and rivalry;
 - respect for human rights, including those of children and minorities;
 - social justice and critical solidarity with the poor, so that structural violence can be tackled;
 - good ecological behaviour that respects the world and its natural conditions;
 - respect for other cultures, which can be made evident in tolerance for those who are different, but also in calling to account the violence which is ‘justified’ by an appeal to cultural differences;
 - space for human creativity and a challenge to the abilities which people have to shape their world in a better way.” (Vriens, 1997, p. 28)

Although some difficulties in the implementation of peace education such as lack of specialists, lack of established material and objections from parents are reported, peace education is studied by international organisations such as UN and UNESCO (Halperin, 1997). It is also studied in many countries such as the USA (Johnson, 1998), Sweden (Harris, et al., 1998; Bjerstedt, 1999; Reardon, 1999; Andre, et al., 1998) and Japan (Nesbitt, 1998). Because of the nature of peace education, it is studied a lot in countries which are unstable in terms of politics, such as Northern Ireland (Duffy, 2000), Israel (Darom, 1998; Dagan and Al-Aarji, 1998), Kuwait (Al-Balhan and King, 1998) and other countries in the Middle East (Velloso, 1998).

1. 13. EDUCATION FOR INTERNATIONAL UNDERSTANDING

As previously noted in chapter 2, the origin of education for international understanding and peace education, which is described in the following sub-section, is in the UNESCO Recommendation of 1974. The following quotation gives a definition of the terms:

“UNESCO RECOMMENDATION

Significance of terms

- (b) The terms ‘international understanding’, ‘co-operation’ and ‘peace’ are to be considered as an indivisible whole based on the principle of friendly relations between peoples and States having different social and political systems and on the respect for human rights and fundamental freedoms. In the text of this recommendation, the different connotations of these terms are sometimes gathered together in a concise expression, ‘international education’.” (Heater, 1980, p. 159)

Accordingly, the recommendation describes the guideline of principles of educational policy as follows:

Major guiding principles of educational policy

1. An international dimension and global perspective in education at all levels and in all its forms.
2. Understanding and respect for all peoples, their cultures, civilisations, values and ways of life, including domestic ethnic cultures and cultures of other nations.
3. Awareness of the increasing global interdependence between peoples and nations.
4. Ability to communicate with others.
5. Awareness not only of the rights but also of the duties incumbent upon individuals, social groups and nations towards each other.
6. Understanding of the necessity for international solidarity and co-operation.
7. Readiness on the part of the individual to participate in solving the problems of his community, his country and the world at large.”

(Heater, 1980, p. 160)

Under this recommendation, UNESCO sponsored many projects in order to introduce education for international understanding into the school curriculum throughout the world (UNESCO, 1965). Those projects were called the Associated Schools Project in Education for International Understanding, and UNESCO published several reports on

the progress of the projects in the world, including the UK and Japan (International Bureau of Education, 1968).

Nevertheless, some obstacles in implementation such as lack of suitable materials, pedagogical and psychological difficulties, and insufficient training of teachers arose out of the very nature of international understanding. Accordingly, many educators including Leestma, who described global education in 1979 (Vestal, 1994), try to overcome problems of education for international understanding by creating further studies such as in global education and world studies.

1. 14. GLOBAL EDUCATION

Global education is another important aspect of education for the global age, although it does not greatly stress a theory of lifelong learning, community education, and information and communication technology education which are important aspects of this study.

We could say that one origin of global education comes from the limits of international understanding education. As we have mentioned before, some educators criticise UNESCO's international understanding education by pointing out that it is not suitable for education for developing global perspectives of pupils. In addition, the lack of a well-structured curriculum also accelerated the establishment of global education (Otsu, 1992). Moreover, an awareness for environmental issues and the globalisation of economy in the 1970s also became one of emerging needs of global education.

Although its root was found in the Progressive Education Movement in the 1930s, it is generally recognised that the term 'global education' was first used by James L. Henderson at the Institute of Education at the University of London (Ishizaka et al., 1994). In the USA, global education was well studied around the 1970s and the 1980s. In Japan, it was first introduced in 1979 by translating the reports of Becker, Leestma,

and Anderson who were pioneers of global education. In the case of England, several school-based researches (Tye 1990; Tye and Tye, 1992) and a combination of theoretical and practical aspects of global education (Tye, 1991) were also published. Moreover, Lister, Selby and Pike developed a centre for global education at the University of York in the 1980s (Lister, 1995), although global education was generally regarded as a world study which was pioneered by national projects (Otsu, 1992).

Now let me briefly describe the aims of global education. The following quotation from Pike and Selby (1988) would be useful to explain them:

“Systems consciousness

Students should:

- Acquire the ability to think in a systems mode.
- Acquire an understanding of the systemic nature of the world.
- Acquire an holistic conception of their capacities and potential.

Perspective consciousness

- Recognise that they have a worldview that is not universally shared.
- Develop receptivity of other perspectives.

Health of planet awareness

- Acquire an awareness and understanding of global developments and trends.
- Develop an informed understanding of the concepts of justice, human rights and responsibilities and be able to apply that understanding to the global condition and to global developments and trends.
- Develop a future orientation in their reflection upon the health of the planet.

Involvement consciousness and preparedness

- Become aware that the choices they take individually and collectively have repercussions for the global present and the global future.
- Develop the social and political action skills necessary for becoming effective participants in democratic decision-making at a variety of levels, grassroots to global.

Process mindedness

- Learn that learning and personal development are continuous journeys with no fixed or final destination.
- Learn that new ways of seeing the world are revitalising but risky.”

Although there are many arguments and issues, they will be described in the following section.

1. 15. WORLD STUDIES

We will now turn to look at world studies. The idea of world studies originally arose from American global education, global studies and world order studies. Otsu (1992) states that world studies in England hold the same meaning as global education. The term ‘world studies’ was created as a generic term embracing many studies in Britain in the 1970s, which was the time when the notion of ‘the global village’ occurred. According to Pike (1997), there are several confusions in the meaning of world studies. For example, Hicks and Townley (1982) mean it as development education, multicultural education and peace education; Heater (1980) uses it to mean environmental education and human rights education; Slaughter includes futures education, McKenzie adds gender issues, and Retallack includes health education (Pike, 1997). As we can see here, there was confusion in defining what world studies means (Heater, 1980).

However, since there is no space here to discuss this confusion of the terminology, we will look at a generally accepted idea of world studies as follows: world studies is, to sum up, “promoting the knowledge, attitudes and skills that are relevant to living responsibly in a multicultural and interdependent world.” (Fisher and Hicks, 1985, p. 8) In addition, if we concentrate on remarks from teachers’ handbooks of world studies, such as *Teaching World Studies* (Hicks and Townley, 1982) and *World Studies 8-13* (Fisher and Hicks, 1985), the aims of world studies will be clear as follows:

- (a) Studying cultures and countries other than one's own, and the ways in which they are different from, and similar to, one's own;
- (b) Studying major issues which face different countries and cultures, for example those to do with peace and conflict, development, human rights and the environment;
- (c) Studying the ways in which everyday life and experience affect, and are affected by, the wider world.” (Fisher and Hicks, 1985, p. 8)

As has been mentioned, problems about these theories will be discussed later.

SECTION 1. 16. RESEARCH REVIEW

In this part, I would like to consider some studies which are partially relevant to 'education for the global age'. It should be noted that there seems to have been no research so far, which have completely the same aims as this study. All research shown here is about studies relating to education for the global age. In addition, such research may cause some confusion for readers, since research that contains the word 'global' is basically about global education.

Moreover, since considering studies relating to education for the global age, which are described in the previous sections, I am now going to consider studies particularly relevant to my study.

There are several studies relevant to education for the global age in many countries. They cover cases in both primary and secondary schools and many relevant works have already been published, e.g. handbooks for teachers (Kawabata and Tada, 1990; Otsu, 1992; Gilliom and Farley, 1990; NASSP, 1990).

Now let me take some examples from schools practising global education, which is one of constituents of education for the global age.

There are some private schools in Japan which try to implement a type of education for the global age (Nakanishi, 1993). Holding not the same but partially overlapping aims

of education for the global age, their own curriculum is set by themselves, and various teaching methods are examined. In another study, Passow (1989) cites a curriculum which includes such aims as “a global curriculum”. In those schools, each pupil’s progress is assessed by the International Baccalaureate. The International Baccalaureate, which is an internationally authorised assessment method to evaluate the progress of pupils belonging to international schools, started in 1951 based on the European Baccalaureate (Nishimura, 1989). To discuss the content of the International Baccalaureate would involve us in further studies and would take us beyond the scope of this study, so I will not look at its purposes here. However, it is pertinent to mention that, in 1986, there were at least six schools in Japan and 313 schools in 51 countries which created their own curriculum holding similar aims of education for the global age and assessed by the International Baccalaureate. In addition, there were at least nine ‘European Schools’ in Europe belonging to the EC, which are similar to international schools. They also utilise the International Baccalaureate as a main means of assessment. In these schools, it is probably fair to say that education, which is relevant to what I am going to explore in this study, has already been implemented.

As for the opinion surveys, there are many studies which look at students’ and/or teachers’ perceptions about educational issues. Among them, opinion surveys which are especially relevant to the topic of this study will be shown below.

In the case of Japanese educational research undertaken in UNESCO Associated Schools, opinion surveys for pupils, which combined with experiment, seem to be popular. Nagai (1989) reports 3 of those surveys which are relevant to education for international understanding. For instance, in 1954, six UNESCO Associated secondary schools participated in an opinion survey which looked at pupils’ awareness of international understanding. In 1962, pupils at a lower secondary school of Hiroshima University, were asked about their understanding of Southern India. In 1978, a survey which looks at pupils’ understanding of Indonesia was undertaken at upper secondary

school of Hiroshima University. In those studies, pupils were asked about their views about one country as a 'pre-test', followed by experimental classes which provided information such as about the language and culture of the country. After finishing those classes, researchers again asked the pupils about their views about the country, 'post-test', in order to look at how pupils' opinions had changed.

Nevertheless, a few opinion surveys, which are similar to this study, should be noted. In 1992, the educational research institution of Meguro district in Japan surveyed "pupils' opinions about international understanding". The questionnaire was administered to 695 pupils in primary schools in Meguro district and the survey took one week. The findings included information such as that 84% of pupils are interested in visiting foreign countries and 71% of pupils are interested in learning foreign languages, and the study concluded that pupils' awareness of internationalisation is high (Meguro-ku moriya kyoiku kaikan kyoiku kenkyu-syo, 1993).

In Kyoto, the historic city in western part of Japan, a similar opinion survey was conducted in 1991. The research, which explores "pupils' views about international understanding education", distributed questionnaires to 2,721 pupils in five randomly selected secondary schools in Kyoto. The findings for this research are similar to the above survey taken in Meguro: more than 70% of the respondents were interested in learning about different cultures; more than 50% of the respondents felt world-wide issues should be taught more in schools (Kyoto-shiritsu Nagamatsu Kinen Kyoiku Centre, 1991).

In the case of educational research in the world including the UK, there are also several opinion surveys which are relevant to education for the global age in this study.

Turning now to look at Healy's (1988) study, whose purpose is, "to explore experts' views on the potential role of international content in the graduate social work curriculum in the United States"(p. 222). Data were collected from 1982 to 1984.

According to his literature review, many authors within the social work field have

generally recognised the importance of including global perspectives in a curriculum, in other words, a global education, although most of them require more data-based studies. First, Healy conducted interviews with 23 widely recognised experts in international aspects of social work, questioning them on the significance of international perspectives in the curriculum. In the second phase, questionnaires were sent to 87 graduate schools of which 63 responded.

Briefly, this study reveals that most experts are generally positive about the introduction of international perspectives in a curriculum in the area of social work. The introduction of international perspectives has the same concept as global education, which is one of the important components of education for the global age as previously described. Therefore, it can be said that the need for education for the global age is affirmed among experts. In addition, what is more important is that Healy's research can offer a framework for curriculum planning and further study. In other words, amongst various possibilities, asking for the views of those who are relevant to the field with which I am concerned, would be an effective method of exploring more practicable methods of education. In fact, a large number of interviews and surveys of principals and teachers inquiring their views can be found. At least 700 such enquires have taken place (BIDS, 2001a).

Leaving aside detailed methodological arguments for the following chapter, I would like to move to another opinion survey in the UK. White (2000) conducted interviews with pupils to explore the views of young people as to what kind of future they envisaged for the form and structure of education in the 21st century. The interviewees were pupils aged between 14 to 18 attending secondary schools in Bristol, Liverpool, London, Oxfordshire, Staffordshire, North Ayrshire and York. The survey found pupils' views about how schools should change in the future, more in-service education for teachers and critical opinion about assessment methods. In the survey, pupils also suggest more discussion and reflection time about current issue and the potential of ICT

in schools in the future.

Another is a social research study, conducted by Market and Opinion Research International (MORI) on behalf of the Development Education Association (DEA) in 1998. In this example, the respondents are 4,245 pupils in Years 7 to 11 (11 to 16 year olds). The method is a self-completion questionnaire, inquiring into the following topics:

1. Pupils' awareness of global and developmental issues.
2. Issues pupils would like to know more about.
3. Pupils' attitudes towards global issues.
4. Pupils' sources of information on global issues.
5. Pupils' views on the introduction of global issues to a school curriculum.
6. Pupils' views on the effect of global issues on adult life. (Source: MORI, 1998)

Briefly, the result of this survey shows that most pupils (81 per cent) are positive in wanting to learn about world wide issues in schools in order to prepare themselves in the global age. Needless to say, this result confirms the importance of learning about world wide issues as previously stated in this thesis. In other words, this view is now confirmed not only by experts but also by pupils. In addition, there is another important point for my study in this survey. By asking pupils about their information sources, the survey discovered that most students know about global issues through the media, such as TV and newspapers. It can be recognised that this finding shows the importance of information technology education in schools in order to keep up to date on information and issues throughout the world. On the whole, this survey reinforces the importance of introducing world wide issues in the school curriculum by asking for pupils' view.

In addition, there are a few opinion surveys which are conducted for students under special circumstances, i.e. students who study at international schools. Here one of the

interesting studies should be noted. Hayden, Rancic and Thompson (2000) explore student and teacher perceptions about “being international”. They administered the questionnaire to the respondents who are in international schools world wide, including over 200 teachers and more than 1,200 18-year-old students. In the analysis, they conclude that most teachers and students tend to consider similar factors important as contributors to being ‘international’. In addition, they found out that many of the factors considered most important relate to attitudes of mind, such as being interested in and informed about other people and parts of the world, open-mindedness and flexibility of thinking, tolerance and respect for others. In the research, the respondents also insisted on the significance of speaking more than one language.

In the use of surveys on pupils’ perception concerning education for the global age, there is some research which looks at students’ visions. Mikkoneon (1999) surveyed young people’s visions about the future in Finland in 1995. The data were collected from mainly the eastern part of Finland. 309 pupils of ages 11, 14 and 17 filled in the questionnaires and wrote an essay. Mikkoneon found that pupils have rather optimistic visions about their personal future, in spite of having pessimistic visions about the local and global future, such as environmental issues, drugs, poverty and increasing violence. Similar research to this, which is worth mentioning, is a survey by Hicks and Holden (1995) conducted in the UK. The purpose of this survey was to explore young people’s view of the future, and at the same time, Hicks and Holden looked into gender and age differences in pupils aged from 7 to 18 years. In this survey, young people’s views of the future were explored at a personal, local and global level. Moreover, the respondents were asked to describe their hopes and fears for the future. They were also asked about their views of future scenarios and possible action by them and by schools to create a better future.

Hicks and Holden collected data from nearly 400 pupils from eight schools in the south-west of the UK, which were chosen from a cross-section of urban and rural

environments and a variety of socio-economic backgrounds.

They reached the general conclusion that British young people in the 1990s were optimistic about their own future. Nevertheless, children were concerned about environmental destruction, growing crime and violence and social inequality. They expected to improve race and gender equity. Children also feel that school should give more information, discussion and advice in the area of environmental issues, high technology, coping with changing society and preparing for a more just and sustainable future.

As described above, there are many opinion surveys for students and/or teachers which are relevant to education for the global age in this study. Nevertheless, it is worth mentioning that there is little research on a similar topic to this study which compares views in different countries. In this respect, this study comparing students' and teachers' views about education for the global age in the two countries seems to be rare.

While there are several studies relevant to education for the global age, other researchers reveal some negative aspects of them. In the following section, those negative views will be described.

SECTION2: PROBLEMS OF THESE STUDIES

According to educational studies which I have described in the former section briefly, many schools and teachers would help pupils to live in the global age. However, it is also true that these studies have not always met with success in their introduction in schools. I would like to pick up some serious issues which have prevented implementation of these theories. I will go on to show cases in Japan and England.

2. 1. LIMITED UNDERSTANDING OF PARTICIPANTS

As one of the serious issues of educational studies which I have mentioned before, I would like to note the limited awareness of them found among teachers, schools, parents and the public (Nakanishi, 1993). They may understand theories but not accept the practice. According to Pelham (1998), there are a few conferences and meetings, such as the annual conferences of the National Association of Independent Schools, which are basically about global education. Nevertheless, these are likely to be for teachers who are very keen on issues relating to education for the global age. It should be noted that there are some reasons for this fact among participants of education.

The Japanese, as we have already seen in the first chapter, are living in a mono-cultural society. Although there are some groups which might be recognised as what British society terms 'ethnic minorities', it is almost impossible to discover any differences, at least in school education. In such a mono-cultural society, we can easily assume that it is difficult even for teachers to acquire an awareness of, for example, multicultural education (Yoneda et al., 1997).

Moreover, in a society such as Japan which sets a greater value on the academic career of an individual than on his real ability, it might be very hard to make parents understand the value of education for the global age, and therefore, to give time to such education as well as academic subjects (Nakanishi, 1993).

In the case of environmental education, most teachers in upper schools do not regard themselves as having a part to play in it (Carson, 1978).

In this respect, as many policy-makers and educators suggest, teachers' education and in-service training may be a vital issue before beginning education for the global age (NASSP, 1990).

2. 2. THE GAP BETWEEN THEORY AND PRACTICE

For similar reasons as noted in the former section, we should recognise that there is a huge gap between theories and practices. For example, we should notice that there is a difficulty of implementation. In the case of Japan, it has been completely impossible for teachers to introduce educational theories for the global age in schools, for the school curriculum has already been decided by the Curriculum Council. Teachers had to follow its guideline which is full of academic subjects.

In the same way, the introduction of the National Curriculum in England from 1988, and the so-called Dearing Review of the National Curriculum in 1994 have made the school curriculum more centralised placing, more stress on academic subjects with less stress on cross-curricular issues including world studies. To make matters worse, there are some additional controversial issues such as the inspection of schools and the so-called league tables. Although the prime minister, Mr. Tony Blair insists the league table is inevitable to raise the standard throughout England (BBC, 2000), it is true that these issues restrict teachers' work to develop the school's academic achievement.

This movement has resulted in preventing various methods relating to education for the global age. The following quotation describes the impact on teachers of the introduction of the National Curriculum:

“Academic subjects are in the ascendant. Little time, status or importance is to be given to aesthetic, practical or social and personal subjects, still less to forms of learning that have no clear subject designation at all. In the small portion of the curriculum remaining after the core and foundation subjects have been accounted for, there will be little time or space for social and personal education, political education, environmental education, development education, integrated studies, social studies, peace studies and the like.” (Vulliamy and Webb, 1993, p. 21)

This is exactly the same situation as occurred in Japan, and therefore, we can easily imagine difficulties of implementation of education for the global age in England as well.

In addition, we should note a lack of more practical studies, such as how to introduce educational theories shown in the former section in classroom activities, and how to evaluate them (Lo, 1991). In this respect, a weakness of global education will be, as Mehlinger states, that it is “goal-rich and content-poor” (Lister, 1995). Of course there are some impressive academic reports which seek practical ways of developing global education. For example, there are *World Studies 8-13* by Fisher and Hicks (1983), *Education for Development* by Fountain (1995). Nevertheless, those contributions seem not strong enough, especially under the National Curriculum in the case of England. The following quotation by Hicks demonstrates this dilemma clearly:

“...it is difficult to quantify the impact of the project. It is certainly not currently working in 50 LEAs, although this number have been involved over the nine year period.” (Pike, 1997, p. 26)

In fact, teachers’ working conditions have deteriorated greatly due to shortage of materials (Delors, 1996). The same problem can be found in Australia too (Mitchell and Salsbury, 1996).

To make matters worse, there is an issue of assessment. As Hedge comments, goals of the educational topics stated in the previous section are not assessable in the presently recognised ‘worthy’ education in schools (Pike and Selby, 1988).

This situation can be found outside schools, too: lifelong learning in England. HMI’s review in 1991, *Education for Adults*, revealed the following difficulties that would occur in its implementation:

- “A failure to clarify aims and objectives;

- Wide variation in the amount of provision made by different LEAs;
- Inadequate machinery to identify local needs and to plan, monitor and evaluate provision;
- Barely adequate accommodation and equipment;
- Management deficiencies due to the low ratio of full-time to part-time staff.” (Raggatt et al., 1996, p. 20)

These issues make the gap wider between theories and practices of studies relating to education for the global age.

2. 3. LACK OF FINANCIAL SUPPORT FROM THE GOVERNMENT

In the case of England, the problem of a lack of financial support from the government became a fatal issue for educators who had promoted various kinds of education for the global age. In fact, many teachers and PGCE students who contributed to a pilot study survey, which will be shown later in more detail, support reforms at governmental level for the introduction of education for the global age. However, the fact is, “governmental policy reduced the role of Local Education Authorities and their capacity to fund in-service work in all areas, including global education (Lister, 1995, p. 113)” by the end of the 1980s. Because of this governmental policy, teachers are forced to work under a shortage of financial resources (Delors, 1996; Mitchell and Salsbury, 1996). In accordance with this governmental policy, there is an argument which criticises the introduction of the National Curriculum itself in England. Here is an example:

“The curriculum which was established by law in the Education Reform Act of 1988 was a national curriculum, not an international, never mind a global curriculum, and it was a curriculum made up of traditional school subjects and not, as some critics would have it a “wayward

curriculum” which included global education.” (Lister, 1995, p. 113)

In addition to this, there is a criticism that governmental policy for education is too much concentrated on economic growth, as has already been shown in the section “learning to do” in chapter 2. Although it is now changing with current educational reforms in Japan and England, understanding of education for the global age at governmental level is a critical problem for its implementation.

2. 4. CRITICISM OF STUDIES RELATING TO EDUCATION FOR THE GLOBAL AGE

The final but most severe problem for educational studies shown in the former section would include the following criticisms. We could take some examples by starting with Citizenship education.

Since the concept of Citizenship education is quite complicated and difficult to define, there are many disagreements on this idea itself. The following quotations from the case of Australia criticise the contradictions in Citizenship education.

- “1. *Citizenship was for some not all*: Aboriginal people, other non-white people and non-Anglo-Celtic migrants were excluded from consideration.
2. *Citizenship was based on an assumption of a single dominant religion*: While sectarianism was excluded from texts used in state schools, there was nevertheless the assumption that Australia was a Christian country.
3. *Citizenship was conceived of in monolingual terms*: English, especially written English that reflected the values of Great Britain, was prompted although local variants were accepted gradually.
4. *Citizenship prompted the values of a capitalist economic system*: Exhortations seeking to enhance the productive capacity of Australia and Australians have been with us for a long time.

5. *Citizenship was based on a view of the world seen largely through British eyes: The acceptance of international responsibilities has come later for Australia with the first signs appearing only after 1945.*” (Kennedy, 1997, p. 1)

The following quotations illustrate the lack of consensus for the notion of Citizenship education itself:

“We may disagree about exactly how to do it, who is responsible for that, or how to assess it. Yet few readers would seriously question that citizenship education still lies somewhere at the core of social studies. (“Civic Intelligence”, 1985, in Cross and Dynneson, 1991, p. 186)”

“Despite widespread agreement as to its centrality and importance to social studies, however, there is little agreement about the meaning of citizenship, the nature of the citizen role, or the major focus of citizenship education efforts.” (Cross and Dynneson, 1991, p. 186)

There are examples from multicultural education. It is said that there is a controversial issue in the teaching of History in England. According to Miles (1998), there are many people who would like to stress ‘Britishness’, and this tacit understanding makes it difficult to introduce multicultural issues in History.

Moreover, Grant and Sleeter researched 200 journal articles from seven countries (Australia, Canada, England, Indonesia, Scotland, Sweden, and the United States) about multicultural education (Kanpol and McLaren, 1995). Added to this, further research of theirs (1987), and that of Gay (1979, 1988) and Hernandez (1989) revealed the following facts on multicultural education:

1. “The multicultural education literature does not show a tight correspondence between ideas and practice, nor does it provide approaches or goals.
2. While there are suggested multicultural education goals for several educational areas, including curricula, instruction, and school

- policy, most school practices are often limited to curricula.
3. The curricula are not ethnically pluralistic and culturally relevant, especially for students of colour.
 4. The term “multicultural education” takes on numerous meanings, leading to conceptual confusion and ambiguity.” (Kanpol and McLaren, 1995, p.93)

Another serious issue concerned with multicultural education is racism. For example, in the USA, there is some evidence of an increase of racial and ethnic violence caused by racism:

“The white supremacy and militia exploits in Montana, northern Idaho, Michigan, and other states have widened the territory in which organizations such as the Ku Klux Klan, American Nazi Party, the Aryan Nations “church”, and the Posse Comitatus have thrived. Ugly incidents such as the murder of a Provo, Utah, boy in New York City, the skinhead murder of a young African in Portland, and the Brighton Beach incident have provided verification of the deep racial hostilities which still run rampant throughout the country.” (Mitchell and Salsbury, 1996, p. 343)

As for global education, global educators are criticised for not being patriotic but pursuing “Thirdworldism” (Lister, 1995).

As we can see here, there are various kinds of obstacles which make studies relating to education for the global age difficult to implement in schools. In other words, it has become clear that ideas of education for the global age based on Delors and other studies may have limitations.

It should be recognised, however, that there is no education without any problems. Moreover, it is a fact that there is a need for education that can cope with rapidly changing society and that promotes the global age as we have seen in the former chapter. There is some hope: the educational movement in Japan is now considering the concept of education for the global age as a significant issue as we have seen in

chapter 1. In addition, the new National Curriculum in England also seems to move toward preparation for the global age. As already described in previous chapters, some areas relevant to education for the global age such as ICT education and foreign languages education have become compulsory parts of the school curriculum. Citizenship education will become a foundation subject in the new National Curriculum, and lifelong learning is also increasing in England.

To overcome limits and obstacles, it is vital to examine more detailed research on this topic. Moreover, the research conducted in this study should help to bridge the gap between the theory and practice.

Another very important point I need to make clearly is that this study is going to look at the two very advanced countries: England and Japan. Because of the nature of education for the global age, it will be possible to look at education in both advanced and non-advanced countries. Nevertheless, it will be appropriate to concentrate on education in either advanced or non-advanced countries, since areas of education for the global age widely cover social, political and economic aspects of each country. In this study, the research is undertaken in England and Japan, and the main reasons for choosing these two countries will be described in the following chapter.

In conclusion, all these researches led the author to undertake a piece of social research focusing on education for the global age based the idea of Delors' four pillars of education. In the next chapter, I would like to illustrate the aims of the research for my study, and methodological issues.

CHAPTER 4

RESEARCH DESIGN AND METHODOLOGY

The aim of this chapter is to describe the methodology of the research for this study. Before looking at the methodology, the aims of this research will be described in section one. In the second section, methodological issues, question types, the processes of data collection and data analysis will be described.

SECTION 1: THE AIMS OF THE RESEARCH OF THIS STUDY

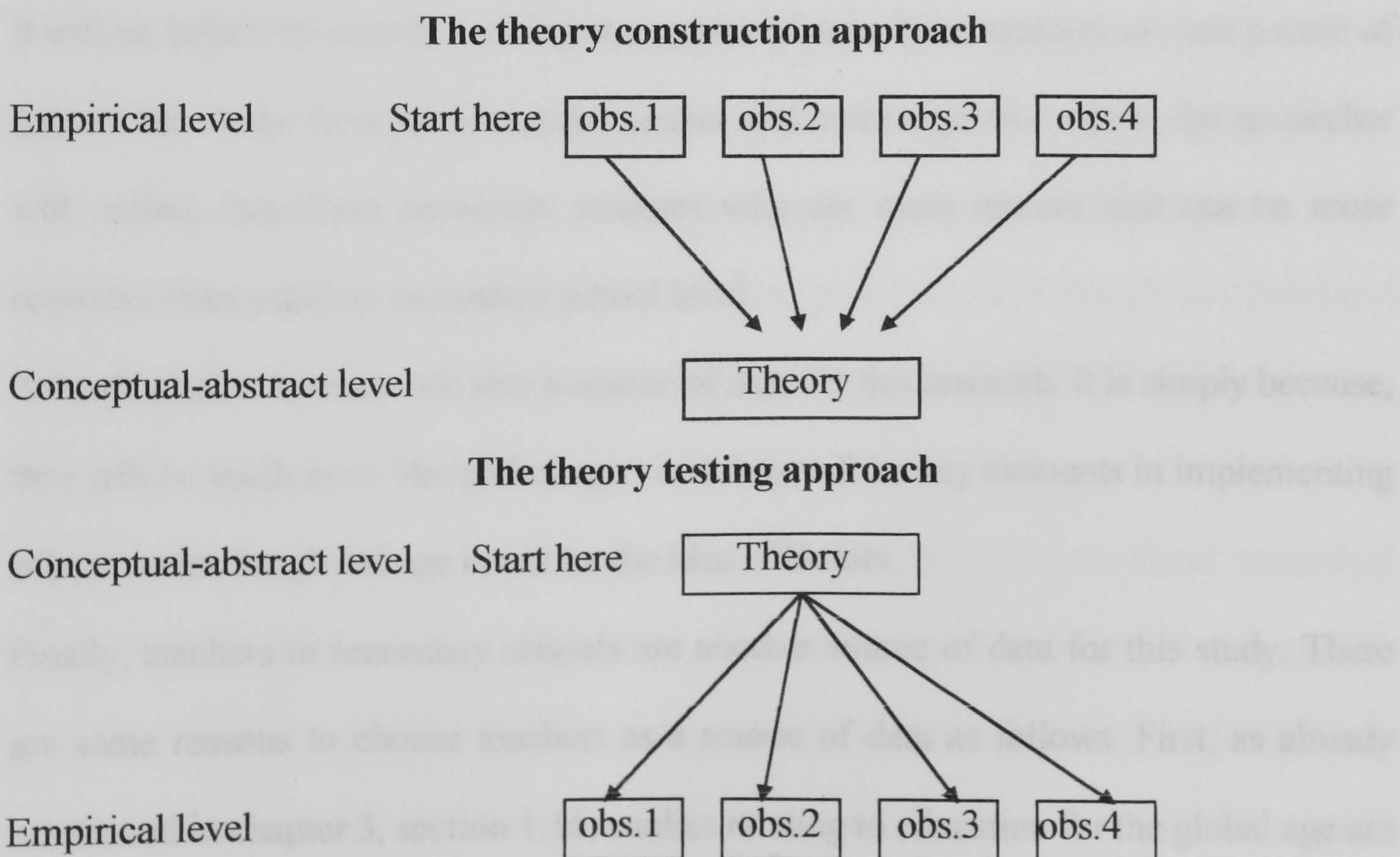
The main aim of this study is **to explore the views about education for the global age at secondary school held by university students, student teachers, and school teachers in England and Japan**. The key research questions are as follows:

- What views do university students and student teachers have about the education they received at secondary school?
- What views do university students, student teachers and teachers have about education for the global age at secondary school?
- What views do university students, student teachers and teachers have about problems of implementing education for the global age at secondary school?
- What views do university students, student teachers and teachers have about the current examination system?
- What views do university students, student teachers and teachers have about how secondary schools should change in the global age?
- What are similarities and differences in the views held about education for the global age in England and Japan?

As already noted, there is a need for a type of education in secondary school that can cope with a rapidly changing society in the global age. Although some studies related to education for the global age are described in the previous chapter, the whole image of 'education for the global age' is still obscure and wide ranging. It is the intention of this study to clarify its nature in the context of two technologically advanced countries: England and Japan.

In this study, the above key questions are created to explore the implementation of education for the global age, based on the idea of Delors' four pillars (Delors, 1996). This is the theory testing approach, since it starts from the theory the researcher predict and investigates how things will be in the 'real' world (DeVaus, 1996). In the stage of analysis, the idea of education for the global age tested in the survey needs to be considered in depth and be changed if necessary. This is the theory construction approach as seen in the following figure.

Figure 12.



Note: obs. = observation

(DeVaus, 1996, p. 12)

After conducting the research in this study, the researcher aims to clarify how the idea of education for the global age can be used in practice. In the following sub-sections, the six key research questions are described in the context of data collection.

SECTION 1. 1. SOURCES OF DATA

In this sub-section, the following two key research questions are described, by looking at a source of data.

- What views do university students, student teachers and teachers have about education for the global age at secondary school?
- What views do university students, student teachers and teachers have about problems of implementing education for the global age at secondary school?

It will be helpful to start by looking at a source of data. First, students are one source of data in this study. In order to acquire clearer and more objective views, the researcher will collect data from university students who are more mature and can be more objective than pupils at secondary school level.

Second, student teachers are also a source of data for this research. It is simply because, they will be teachers in ‘the global age’, and they will be key elements in implementing education for the global age based on the idea of Delors.

Finally, teachers in secondary schools are another source of data for this study. There are some reasons to choose teachers as a source of data as follows. First, as already mentioned in chapter 3, section 1.16, studies relating to education for the global age are reported in special kinds of school such as international schools, but are not clearly arranged for standard schools. In fact, they rather seem to be only for educators who are

interested in international education or global education, and for students who live in unusual circumstances, such as those who have not lived in their native country.

In addition, policy makers and now even pupils advocate the importance of some education for the global age. Nevertheless, the problems of implementation which have been examined in the previous chapter still remain and are reported frequently in the data. In a sense, it seems reasonable to say that data from ordinary teachers should narrow a gap between theory and practice.

There is also a problem of a lack of understanding, and of a gap between theory and practice that needs to be overcome to implement education for the global age for all children. Although there are some teachers who try to carry out such education in regular schools, it is still not enough to cover all children due to a lack of communication between such educators, or due to a lack of research targeting ordinary teachers.

Judging from the above, a study which gains approval from teachers of regular schools is vital to bring education for the global age to as many children as possible.

Accordingly, a study should investigate obstacles that most school teachers face when they try to implement education for the global age. Moreover, as we have already seen, there may be some teachers who do not agree with this kind of educational theory itself. In this study, it will be worth investigating these people's ideas to clarify problems and to implement education for the global age. In fact, the pilot work for this study with PGCE students at the University of York revealed some obstacles.

Another important point of this research is that all questions are about secondary education. For this reason: projects related to education for the global age can be generally found in primary schools and universities (Iglitzin, 1984). Meanwhile, in terms of educational psychology, children in adolescence are in the critical developmental stage and experience great changes both physically and mentally (Earl, 2000). It is the period when children extend their curiosity about family to friends,

schools, society, and the world. They absorb incredible amounts of information of all kinds (Yamamoto, 1989). Experiences in this period can be so significant that they may affect children's whole life afterwards. In addition, this is the time that the curriculum becomes very broad and deals with more sophisticated concepts and ideas, particularly involving abstract thinking. In other words, it is the most critical time for children at secondary education to undertake education for the global age. Moreover, the school curriculum reform at secondary education level has just occurred in England and Japan, as stated in chapter 1.

In conclusion, teachers, student teachers and students are sources of data in this study. In addition, all questions are about secondary school education.

SECTION 1. 2. CONDUCTING A COMPARATIVE STUDY

We should move on to look at another key research question. This is to examine the other key question: what are similarities and differences in the views held about education for the global age in Japan and England?

Generally speaking, comparative studies start from a theory exploring a universality, which is developed from data based studies (Ishizuki, 1996). At present, there are more than 28,000 comparative studies in educational research listed in the BIDS data base (BIDS, 2001b).

In order to find one of the reasons for such a large number of researchers practising comparative studies, we should look at the benefits coming from those studies. In most cases, many researchers comment in their introductory sections that learning from other countries could result in many benefits for both or all countries that are surveyed. Parker (1992) explains it well as follows:

“Comparisons offer insights into how we and other countries conduct

our politics, economics, literature, law, education, and so on. We are curious, want to see how others do things, want to improve ourselves, and want to find a better way.” (p. 1)

While leaving methodological discussion on comparative methods until later, some examples of comparative researches should be shown here.

Benefits from results of comparative studies have already been acknowledged in many countries. In addition, in many cases, comparative studies have been conducted when people need an educational reform. For example, in the case of Japan, as already stated in chapter 1, Japanese people introduced an education system developed from many countries to bring about better education, firstly around the late 1800s and then after the second world war. In the case of the USA, American educators imported systems from Germany, Prussia, England and other European countries (Parker, 1992). In France, Cousin (1792~1867) researched the German educational system and his data became the basis of French primary school law. In England, Arnold (1822~1888) observed educational systems in France, Italy, Switzerland and Germany and pointed out the weaknesses of English education (Ishizuki, 1996).

We should now move on to look at previous comparative studies between England and Japan. There are a large number of studies conducted in both countries. They range widely, concerning subjects such as education policy (Linehan, 1989; Levin, 1998), teacher training (Sharpre and Ning, 1998), teachers' and other people's attitudes towards education (Simmons and Wade, 1988; Moore and Lamie, 1993; McPake and Powney, 1998), teachers' working conditions (Inui, 1993), and teaching methods (Larsson and Booth, 1998). In addition, some studies cover all areas of education including not only England and Japan but also other countries (Duke, 1986; Howarth, 1990; Menlo and Poppleton, 1990; Menlo, 1990; Stevenson and Lee, 1990; Parker, 1992; Hargreaves and Evans, 1997). Generally, they investigate the similarities and differences of education between both countries, and attempt to explore each country's

strengths and weaknesses and learn from each other's superior characteristics.

Before setting the aim of this study, the researcher developed a simple ambition, to examine a research concerning her topic in both England and Japan. One reason arises from the benefits as Parker cites above. Secondly, another reason is also quite simple: studying as an overseas researcher in England, I have decided to avail myself of this unique position. In comparative study, it is essential for the researcher to have advance knowledge about the culture and close co-operation with the native people of the other culture (Neuman, 1997). To sum up, if the researcher conducts her research in both England and Japan by fully utilising her position, she will have more flexible access to resources in both countries, and will find benefits for education in both countries.

Thirdly, it is good timing to carry out a comparative study between England and Japan. As already stated in chapter 1, both countries are now attempting educational reform. Comparative studies would be well worth conducting when countries try to implement new educational reform.

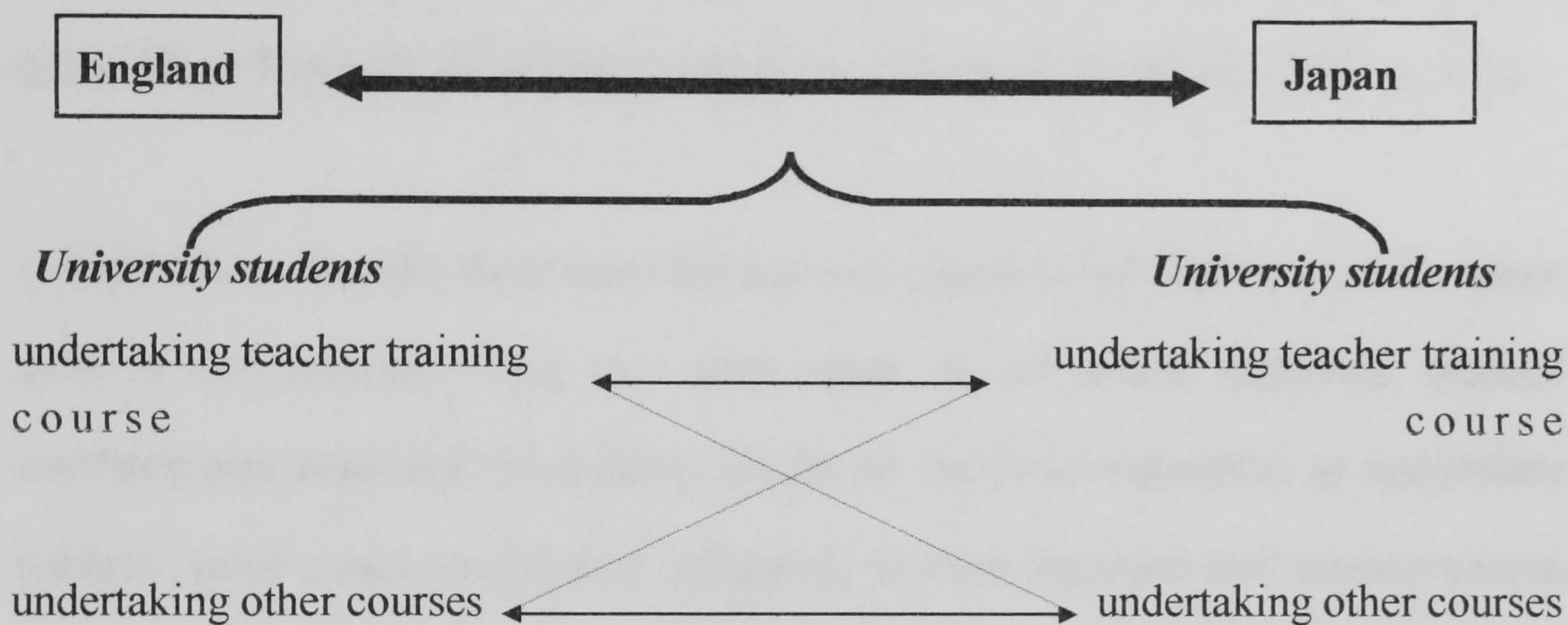
It is also worth noting that there is little research on a similar topic to this study which intend to compare views in different countries. In this respect, this study seems to be rare.

Finally, education in these two countries has recently moved in completely opposite directions as already mentioned in chapter 1. This fact has already been reported by some of the researchers noted above who conducted comparative studies in both countries, such as Shimizu (1996) and Green (2000). They pointed out that English education reform moves toward rather 'centralised' and 'back to the basics' politics, sometimes called 'the new orthodoxy' (The Economist, 1998). On the contrary, Japanese education tends towards a more 'de-centralised' movement and broadening of the curriculum (Nihon Kyoiku Shinbun, 1999). As a result, I decided to conduct a comparative study between England and Japan.

As previously stated, resources are collected from two different types of students;

students whose subject is teacher training, and students of other subjects. It becomes possible to even compare students' attitudes towards education. Moreover, in comparing each country's result, it would be possible to find more specific differences and similarities between each country's attitude towards education. Selecting objectives in this way and comparing any small points enable us to find more detailed and accurate students' views for education for the global age (see figure 13).

Figure 13.



Apart from these perspectives, there are many obstacles in conducting comparative studies. As one can imagine, each country has its own philosophy, policy, and culture, which make up its original education. It has both nation-oriented problems and variable-oriented problems (Szali, 1977). Detailed methodological problems will be shown later.

Nevertheless, It should be noted that it is worth looking at education in England and in Japan when we witness such exciting movements. As LeTendre (1999a) emphasises, comparative studies recently attract not only mainstream researchers but also policy makers, classroom teachers, and the general public. In other words, high-quality data is

needed in comparative studies in spite of many difficulties in implementation. Moreover, as already seen in the previous chapters, a theme of this study contains rather broad concepts and world wide views.

In conclusion, comparing these two countries and finding their differences and similarities would be good foundation for the distillation of more concentrated results which could gain wider agreement concerning the topic among other countries for further study.

SECTION 1. 3. VIEWS ABOUT STUDENTS' RECEIVED EDUCATION, VIEWS ABOUT CURRENT EXAMINATION SYSTEM, AND VIEWS ABOUT HOW SECONDARY SCHOOLS SHOULD CHANGE IN THE GLOBAL AGE

I would like to describe three more key research questions that will be another unique point of this research. They are: what views do university students, student teachers and teachers have about students' received education at secondary school?; what views do university students, student teachers and teachers have about the current examination system, and what views do university students, student teachers and teachers have about how secondary schools should change in the global age?

First, by asking for students' views on their past education, more objective and critical views about current education can be collected since students are now mature enough to judge their received education in secondary schools. Furthermore, it will be possible to find out how satisfied they are with education in their country. In fact, there are some surveys which ask pupils' views on their education (Abiko, 1998), but it is unusual to target a university level students.

In this study, asking students' views about their past education is important to investigate the way changes secondary school education could occur. A critical

observation of the effectiveness of the current school education may enable the researcher to look at possible ways for introducing the idea of education for the global age.

Secondly, it is also very important to ask views about the examination system held in both Japan and England. The reason for this is very simple: an examination system is always the central point when discussing the education system in every country. In England, that GCSEs are a controversial issue in secondary schools education, and some even argue GCSEs should be abolished (TES, 1999a; Rafferty, 1999). A-levels, which are needed to continue into higher education in England, will be also the main focus of education reform soon, as more and more people are now encouraged to continue their education to higher education by the government policy (DfEE, 2001).

In the case of Japan, entrance examination to university, some call this “the examination hell”, is always a central issue of educational reform, as previously described in the first chapter.

Therefore, it will be a vital issue to ask for views about examinations, when discussing implementation of education for the global age.

Finally, views about how schools should change in the global age are asked. In this question, the respondents’ vision and hopes for secondary school will be explored.

SECTION 1. 4. GENERAL POINTS OF THE RESEARCH

Following the above remarks, some general points on the research should be clarified here. First of all, the study should cover four main aspects of education for the global age; (A) the aims of education; (B) curriculum content; (C) teaching methods; and (D) assessment methods. These topics should be based on ideas of education for the global age. First, asking about the aims of education itself is an essential question, because some people do agree with ideas of education for the global age but some do not.

The curriculum content is also a central issue for the implementation of education for the global age. By examining this issue, it is possible to explore the students' and teachers' ideas on the school curriculum.

Asking about teaching methods might be one of the unique characteristics of this research. Amongst many studies, various kinds of teaching methods are well stated, and there are some studies on teacher training (DEA, 1997). However, many studies do not seem to be carried out in most standard schools, because of their unique teaching methods. According to the pilot work for this study which was previously conducted, teachers believe that they cannot carry out such progressive teaching methods because of the tight curriculum, because of the character of each subject, and lack of teacher education and in-service training. In order to introduce education for the global age for all children, it would be vital to generate teaching methods that not all but most teachers can assent to and bring about in each subject, and it will also be helpful for further study during teacher training.

For the same reason, assessment methods will be a very significant issue to implement education for the global age. Especially in Japan, where the most important point of education lies in its assessment, asking about possible assessment methods will be a very interesting point.

In conclusion, if the research can compare all results of the above aspects from each country, we will find various views on education for the global age. In addition, it will also be possible to explore characteristics of culture of each country. Looking at influences of such aspect is not only an ethnographic research but also a kind of a field research, which aims to explore certain patterns and the reasons behind social interaction (Sarantakos, 1998). Therefore it will be very important to explore views about education for the global age as well as to compare the findings.

SECTION 1.5. A SUMMARY OF THIS RESEARCH

Before moving on to methodology, a summary of this research shall be shown here briefly.

(A) The aim: to explore the views about education for the global age at secondary school held by university students, student teachers and school teachers in England and Japan.

(B) Key research questions:

- What views do university students and student teachers have about the education they received at secondary school?
- What views do university students, student teachers and teachers have about education for the global age at secondary school?
- What views do university students, student teachers and teachers have about problems of implementing education for the global age at secondary school?
- What views do university students, student teachers and teachers have about the current examination system?
- What views do university students, student teachers and teachers have about how secondary schools should change in the global age?
- What are the similarities and differences in the views held about education for the global age in England and Japan?

(C) Sources of data:

Group A: English students at university undertaking a PGCE course.

Group B: English students at university undertaking a first degree.

Group C: Japanese students at university undertaking a first degree in teacher training.

Group D: Japanese students at university undertaking a first degree.

Group E: Japanese secondary school teachers.

Group F: English secondary school teachers.

(D) Four main aspects of education for the global age:

- (1) Aims of education;
- (2) Curriculum content;
- (3) Teaching methods;
- (4) Assessment methods.

The unique points of this research are:

- (1) Education for the global age in this study is based on the Delors report.
- (2) A comparative study between England and Japan.
- (3) A comparison of results from students undertaking teacher training courses and students undertaking other courses.
- (4) Targeting regular secondary school teachers, university students and student teachers.
- (5) Focusing on secondary school education.
- (6) Asking students' views on their secondary school education.

More detailed methodological issues on this study will be described in the next section.

SECTION 2. METHODOLOGY

In this section, the research design will be described, by describing the literature

relevant to the methodology. In the first part, the principles of social research will be described briefly. Second, I would like to consider the designing process of the questionnaires and interviews.

2. 1. 1. METHODOLOGICAL ISSUES

In this section, a history of social research, types of social research and ethical issues will be described briefly.

First of all, a fundamental principle of social research is said, simply, to be to understand people and society (DeVaus, 1996). As a tool to answer this question scientifically, social research has been used for several centuries.

According to Sarantakos (1998), social research which is of the type used in modern age was originated in France by Comte. This social philosopher declared that social phenomena should be explained in society itself and in the structure of social relations, hence it should be investigated with scientific methods. Those who followed his theory were called ‘positivists’, and they became a backbone of social science.

After a dominance of positivism for centuries in social science, a large number of groups against positivists were gradually created. Starting with a group called ‘logical positivists’, they caused considerable conflicts by attempting to dominate social science. However, we should note that those conflicts occurred to improve the study of social science. In other words, their attempts resulted in deepening and creating various kinds of research methods and techniques, and all of them were diverse, and equally valid if properly used.

Accordingly, various types of social research should be listed when researchers face methodological issues. The following list indicates the diverse nature of social research methods.

- Quantitative research
 - Basic research
 - Applied research
 - Longitudinal research
 - Qualitative research
 - Descriptive research
 - Classification research
 - Comparative research
 - Exploratory research
 - Explanatory research
 - Causal research
 - Theory-testing research
 - Action research
 - Participatory action research (PAR)
- (Sarantakos, 1998, pp. 7-8)

Many researchers tend to employ more than one type of method, which applies in this study as well. In this study, a comparative research will be used. Added to this, qualitative and quantitative research methods, which will be carefully described later, are also used.

Before moving on to look at methodological issues of research used in this study, another significant issue in principles of social research should be noted here: the ethical issue.

Ethics is, according to Homan (1991):

“the science of morality: those who engage in it determine values for the regulation of human behaviour. One of the general definitions given by the Oxford English Dictionary is ‘the department of study concerned with the principles of human duty.’” (p. 1)

Almost all of the methodological guides strictly demand social researchers to follow ethical rules, since social research covers sensitive areas of the public community which comprises a society holding to a certain morality. Ethics is included in

researchers' responsibilities when they undertake social research. If they fail in this duty, they would reach poorer results than respect for subjects (Homan, 1991).

The researcher, as Hitchcock and Hughes (1989) state, has responsibilities towards participants and the academic community. Regarding the former responsibility, it is useful to cite DeVaus' three codes as follows:

1. The participants should participate on the basis of informed consent.
2. Participants should be volunteers and should not be made to feel that they must participate.
3. Participants should not be harmed as a result of participating.
(DeVaus, 1996, pp. 348-349)

Furthermore, researchers should avoid activities against the academic community. In other words, they should be professional and should not report false results. Therefore, the researchers should not fail to explain as clearly as possible the aims, objectives, and the research processes including methods of data collection and data analysis (Hitchcock and Hughes, 1989). This notion leads researchers to be objective even when they find results which they never expected. Finally, the researchers have a duty to pursue the truth as objectively as possible when conducting social research.

In the next section, the research methods used in this study are described.

2. 1. 2. RESEARCH METHODS USED IN THIS STUDY

As previously stated, three social research methods: (a) quantitative research; (b) qualitative research and (c) comparative research are used in this study. Here the main principles of each method will be described briefly.

First, the most popular as well as most controversial research methods in social science will be quantitative and qualitative research. Generally, quantitative research is based

on the principles of positivism and neopositivism. On the other hand, qualitative research is based on diverse theoretical principles (Sarantakos, 1998). In the following figure, some generalised differences between quantitative and qualitative research are shown.

Figure 14.

Feature	Quantitative methodology	Qualitative methodology
Nature of reality	Objective; simple; single; tangible sense impressions	Subjective; problematic; holistic; a social construct
Causes and effects	Nomological thinking; cause-effect linkages	Non-deterministic; mutual shaping; no cause-effect linkages
The role of values	Value neutral; value-free inquiry	Normativism; value-bound inquiry
Natural and social science	Deductive; model of natural sciences; *nomothetic; based on strict rules	Inductive; rejection of the natural sciences model; *ideographic; no strict rules; interpretations
Methods	Quantitative, mathematical; extensive use of statistics	Qualitative, with less emphasis on statistics; verbal and qualitative analysis
Researcher's role	Rather passive; is the 'knower'; is separate from subject - the known: dualism	Active; 'knower' and 'known' are interactive and inseparable
Generalisations	Inductive generalisations; nomothetic statements	Analytical or conceptual generalisations; time-and-context specific

(Source: Sarantakos, 1998, p. 54. Note: Nomothetic research refers to research which tries to identify 'laws', in contrast with ideographic research which tries to understand individual instances as unique case studies (Kyriacou, 1999).)

Since both methodologies have their own characteristics, there are a number of arguments to determine which method is more effective. For example, some writers agree that qualitative methodology is more moderate than quantitative one, while other writers stress qualitative research as the most appropriate form of research (Sarantakos, 1998).

Nevertheless, as some researchers argue, there will be no *better* methodology. Both can be effective and right when they are used in the most suitable way. Judging from the above, both are regarded as important to use. More detailed reasons for using both of them will be explained in the following sections.

Apart from those two research methodologies, one more methodology is used in this study: a comparative research.

The more nation-states are developed, the more opportunities for comparative research are increased. In fact, it is a growing area used by, for example, international organisations (May, 1997).

In the same way as the other research methods, comparative research dates back to one of the origins of social science, as old as the era of Aristotle and Tukidies (Szali, 1977).

The usage of terms is diverse: cross-country, cross-national, cross-social, cross-cultural, cross-systematic and cross-international (Hantrais and Mangan, 1996). All of them mean a comparative study collecting and analysing data from more than one country.

The main aim of a comparative study is “to understand and explain the ways in which different societies and cultures experience and act upon social, economic and political changes” (May, 1997, p. 182). The following generalised strengths of comparative studies are based on May (1997) and Hantrais and Mangen (1996).

Strengths.

1. It spreads modern sociology to areas where it was previously unknown.

2. It can lead to fresh, exciting insights and deeper understanding of issues in different countries.
3. It enables researchers to look at a total context and discover the greatest number of factors that are interactive and interdependent.
4. It helps to sharpen the focus of analysis of the subject under study by suggesting new perspectives.

On the other hand, we find serious methodological problems in comparative research. The following list of the limits is based on Hantrais and Mangen (1996) and Brislin et al. (1967).

Limits.

1. A financial limitation. Because of its huge dimension, costs for data collection will be limited. In the case of a collaborative research, the collection of secondary data undertaken by researchers in their own country can cause difficulties in financial resources.
2. Time consuming work. For the same reason as the above, it will be extremely time-consuming work.
3. Linguistic and cultural barriers. Including writing meaningful questions and translating them.
4. Differences in the research traditions of participating countries.
5. Availability of comparative data.
6. Reaching agreement about research parameters, or units of comparison, achieving functional equivalence of concepts and terms.

By taking into account those limits, the researcher should always collect the most accurate sources of evidence available (LeTendre, 1999a).

SECTION 2.2. RESEARCH DESIGN

In this study, a questionnaire as a quantitative research tool and interview as qualitative research tool are used. In the following sub-sections, how those methods are designed will be described.

2. 2. 1. DESIGNING A QUESTIONNAIRE

As one of the research methods, the researcher decided to conduct questionnaires by making use of some advantages. The most beneficial point to use questionnaires will be, as Bell (1999) indicates, to collect certain types of information quickly and relatively cheaply when subjects are disciplined enough to abandon questions.

We should now look at the type of the data that the researcher need for this study. As seen in the previous section, the basic aim of this research is to collect data from several groups cross-nationally in Japan and in the UK. Therefore, it is obvious that the scope of the data needed for this research is tremendously wide in all respects. For example, it is clear that there are financial and time limits to the collection of data from both countries, which lie at approximately ten thousand kilometres distance from each other. Accordingly, it becomes a vital issue to focus on acquiring certain types of key information.

To confirm a questionnaire as an appropriate method for this study, the pilot study was conducted. The nature of the pilot study is, according to Sarantakos (1998), to explore possible weaknesses, inadequacies, ambiguities and problems in all aspects of the research, when quantitative research is needed. The pilot study was conducted in June 1998 in England, and in October 1998 in Japan. Sources for the pilot work were 75 PGCE students at the University of York, and 47 students at Sagami Womens' University in Japan. In the case of PGCE students in the University of York, there were a few students who had work experience as a school teacher and their opinions were very helpful to revise questions afterwards. Since the questionnaire was conducted at a seminar, there was some time allocated to discuss 'the global age' and 'education for the global age'. Needless to say, the discussion was very helpful to provide better questions. In the same way, the pilot work to Japanese students enabled the researcher to revise some questions, although the researcher had no opportunity for discussion. In

short, the pilot study successfully delivered findings indicating that more effective question types would be needed for this study.

Judging from the above work, the researcher has considered that an effective way to collect data from as many students as possible is likely to be a questionnaire.

As the next phase, objectives for the questionnaire have been selected. 200 students at university in Japan and England, in total 400 students in the two countries are set as the target samples. As already mentioned in the previous section, half of the number will be students who mainly take teacher training courses, and the other half will be students who take first degrees in any courses in other subject areas.

The researcher believes the answers collected by this research will illustrate certain patterns representing the views of most students. One of advantages of a questionnaire is wide coverage of collected data (Denscombe, 1998). Standing by this point, 200 students are selected from each country which is enough to use as a sample. More precise information on them including how they are selected in each country will be described in section four.

Before looking at each question type, it should be noted that a significant issue for the researcher is to produce a well-designed questionnaire. It is obviously difficult to form a set of two parallel questionnaires both in English and in Japanese as a research tool. Besides, it becomes much harder to produce questionnaires in a non-native language. Bell (1999) demonstrates that care should be taken in selecting question type, in question-writing, in the design, piloting, distribution and return of questionnaires. Added to this, there are mainly two linguistic problems which the researcher should beware of. First, an issue lies in using simple vocabulary and grammar. Second, it involves effects of specific words or phrases (Neuman, 1997). If one needs to conduct research in the UK, ability to write in plain English and to have a modicum of common sense with English people becomes a very important issue (Bell, 1999). As Denscombe (1998) illustrates, the researcher needs to be confident with usage of the appropriate

wording of the questions.

Since the researcher is not native English and it seems impossible to overcome this kind of sensitive issue, the researcher asked her supervisor to help to put her ideas into appropriate English initially. After she constructed a questionnaire in English, it was translated into Japanese by herself with great care for the selection of appropriate words. In order to make the translation more accurate and academic, the researcher also asked some native Japanese colleagues to help to select appropriate words.

In the next part, question types for the use of a questionnaire are described.

2. 2. 2. QUESTION TYPE

The structure of the questionnaire comprises the introductory part and the main body of this section.

First of all, the background information for respondents to prepare for this questionnaire has been described in the introduction (see appendix 2 and 3). In addition it briefly introduces the researcher, explains the main topic of her study, and the aims of the research. It also explains that all questions in this questionnaire are about secondary schools in England. In this introductory part, the researcher has also given an explanation about ‘the global age’, which is based on her understanding of concept. As discussed in the second chapter, it is very complicated and difficult as well as important to conceive what the global age is, precisely. In addition, the introductory part will be generally recognised as one of the factors that influences the response rate, since it may encourage respondents to recognise the value of this survey and contribute their ideas to it. To sum up, providing some hints and key words about the global age was thought appropriate, in order to let respondents have a clear understanding of the global age before answering all questions.

In addition, educational background information of the respondents is collected before

moving on to the main questions. It asks about respondents' curriculum area, sex, age, and the place where they have received their secondary education.

Here it should be noted that there are three minor differences in the introductory part between English and Japanese research.

First, there are two methods to ask respondents' age: one method is to ask age by categories, the other is to let the respondents write down their age in a bracket (Inoue et al., 1996). In the case of Japan, it is common to use the latter method asking for the school year in many social research surveys of students (Chuoh Kyoiku Kenkyu-syo, 1992b; Morimo, 1998). Therefore, the questionnaire in Japanese leaves a bracket to fill in their age, although all information about age is allocated in categories in analysis. In the case of England, age is often considered a sensitive issue to ask (Bell, 1999). Therefore, the questionnaire is designed to ask age by categories in English research.

Secondly, the respondents' curriculum area is divided into certain categories, and all the respondents to do is to tick in each blank in the English research. However, since the researcher had no idea about Japanese respondents' curriculum area, it was impossible to provide categories. Therefore, curriculum area is directly asked by using a bracket in the Japanese research.

Finally, a difference found in the introductory part is collecting information about the place where respondents have been educated. Generally speaking, students at an English university comprise a multinational population. Some ethnic minorities and overseas students may receive very different education from others. In addition, different parts of the UK (England, Wales, Scotland, and Northern Ireland) carry out its own educational policy (Taguchi, 1993), although there exists a national curriculum and it may affect the answers of each student. Therefore, collecting this type of information may help the researcher to understand each student's opinions more clearly.

On the other hand, this information does not seem to make a significant difference if it

is asked in Japan. The reason for this is that, the national curriculum has strongly influenced the whole country for more than 50 years, and it makes no difference geographically. As for the ethnicity of respondents, there are small numbers of minority groups in Japan. However most of them receive the same education as native Japanese students.

For example, there are 222 schools which are exempt from the control of Japanese educational authority, and an estimated 8,500 pupils attend those schools (Ishizaka et al., 1994). Even if all of these pupils continue their higher education at Japanese university, it is less than 0.1 per cent of the total population of university students in Japan (see figure 15). In the same way, the number of Japanese students who have received compulsory education abroad and the number of overseas students who study at Japanese university are also less than 0.1 per cent of the whole number of students.

Figure 15

	Total number
Number of university students in Japan in 1992	2,645,082
Number of overseas students in Japanese university in 1992	48,561
Number of Japanese students who have received compulsory education abroad in 1992	13,219
Number of pupils who attend schools where are not under the control of Japanese educational authority in 1991	Estimated 8,500

(Source: Monbusho, 1994; Ishizaka et al., 1994)

By taking account of this point, asking about the place where respondents have been educated has been omitted in the Japanese research. In conclusion, these three minor differences are carefully used in order to acquire the respondents' background information needed for this study.

We should now move on to the main body of the questionnaire.

All the questions are relevant to education for the global age, and the main questions are divided into five sections: (A) past education which each respondent has received; (B) aims of education for the global age; (C) curriculum content; (D) teaching methods; and (E) assessment methods.

Added to these five sections, two other questions are included in the last part. These questions will be shown later.

The question type is carefully chosen according to the information needed for this study. Generally speaking, both quantitative methods, which enables researchers to compile statistics of answers easily, and qualitative methods, which enables researchers to explore various answers are very important for data collection. This issue can be applied in this research project too. For instance, a questionnaire with rating scales can produce useful information for compiling statistics, but the target population of 200 students in each country may not be enough. On the other hand, open-ended questions provide an opportunity to collect a range opinions and views of each respondent, but there is a risk that some respondents may avoid answering.

By considering this point, both questions with rating scales and open-ended question types, in other words, “a mixed format”, are used in this questionnaire.

We should now look at each question.

(A) Past education that each respondent has received.

In questions one and two, students are asked about satisfaction with their past education. First, a question asks for the respondents’ general opinion about their received education, by giving five numerical responses from ‘very satisfied’ to ‘very dissatisfied’. Question two asks to what degree they were satisfied with certain topics given by the questioner as follows:

1. The content of school subjects.
2. Teaching methods.
3. Pace of learning in each subject.
4. Methods of assessment.
5. Relationships with school friends.
6. Social activities (clubs, societies).
7. School events (school festivals).

These are also to be chosen by five numerical responses in the same way as questions one and two.

As can be seen here, topic one to four mainly ask about academic aspects of school education. Then, topics five to seven examine rather the social life of each respondent.

By asking these questions, how students are satisfied with not only academic aims but also social development, and what students feel important for their life can be explored.

The following questions ask how useful respondents feel are the subjects they have learned. As a reason for wording “useful” in those questions, it should be recognised that some people may feel “useful” and “satisfied” in education is different. Although not satisfied with the academic purposes of school education, some students might feel they would be very useful for their rest of life. By taking this point of view, questions three to five aim to explore the more detailed opinions respondents have about the education they received. Question three asks to what extent respondents’ received education was useful, and the topics of educational issues are divided into five categories. Questions four and five are verbal questions, for asking students’ own views. By asking these five questions, key answers to explore how effectively the present school education works, and how it should and should not change for the global age are to be found.

(B) Aims of education for the global age

Questions six and seven ask about the aims of education for the global age. In the sixth question, aims based on the idea of Delors' four pillars (Delors, 1996) are listed and respondents choose how much emphasis should be given to each aim. Contents of each category are as follows:

1. To help pupils to acquire the skills needed to get the job they want in adult life.
2. To help pupils to acquire a broad general knowledge.
3. To help pupils to develop an understanding of other countries and cultures.
4. To help pupils to develop an understanding of different communities in their own country.
5. To help pupils to develop a sense of being a citizen of the world.
6. To help pupils to learn to deal with problem situations.
7. To help pupils to exercise greater autonomy.

Aim one is relevant to "learning to do", aim two is asking about "learning to know". Aims three to five are about "learning to live together". Finally, aims six and seven are about "learning to be". Each category asks for the degree of emphasis which respondents would like to give to education in the global age. Degrees are divided into five choices, from "much more emphasis than now" to "much less emphasis than now". As can be seen here, degrees are based on a comparison with the present education system.

In question seven, problems which respondents conceive to occur in the aims of education for the global age are asked in the open-ended question style. After

conducting pilot work in England, the researcher arranged this question to ask first a ‘yes-no’ style question as follows:

“Do you feel problems will occur, if changes in the aims of education are to be implemented?”

Followed by this simple question, more detailed information is asked for by an open-ended question style, as follows:

“If your answer is ‘yes’, please outline what kinds of problems they are.”

This is to avoid collecting blank answers about this important issue as far as possible. By asking these two questions, useful information to consider a gap between the theory and the reality, how much most regular students can accept the ideas of education for the global age, and what kinds of problems will occur in implementing them are expected to be found.

(C) Curriculum content

In the same way as the above questions, questions eight and nine inquire about the curriculum contents in schools in the global age. Contents are listed into eleven categories as follows:

1. Basic skills (literacy, numeracy)
2. High-level skills / knowledge
3. Foreign languages
4. Learning about the culture of people in other countries

5. Learning about different communities in their own country
6. Developing a sense of responsibility towards people living in other countries
7. Developing a sense of individual empowerment
8. Visiting and living in other countries
9. World issues (e.g. environment, human rights, war and peace)
10. Information and communication technology skills
11. Activities which take place outside school

Each content is basically subjected to Delors' ideas and important topics relevant to education for the global age, which are listed in the second chapter of this thesis. That is, 1 to 3 and 9 are about "learning to know", 4 to 6 and 8 are about "learning to live together", 7 is about "learning to be", 10 and 11 are about "learning to do". In the same way as question six, respondents will choose categorised degrees according to how much emphasis should be given by comparison with the present situation. In question nine, a verbal question asks for respondents' views about problems in implementing these curriculum contents in the same way as question seven.

(D) Teaching methods

Teaching methods, which should be emphasized in education for the global age, are the subject of questions ten and eleven. In question ten, various teaching methods are listed as follows and respondents are asked how much they should be emphasized.

1. Collaborative activities where small groups of pupils have to work together as a team.
2. Individualised programmes of work where each pupil can work alone

at his / her own pace.

3. Whole class teaching.
4. Computer assisted learning packages.
5. Activities which take place outside school (e.g. work experience, exchange visits, outdoor education).

Each teaching method is listed by looking at various potentialities, from traditional to modern teaching methods.

Question eleven asks about problems in implementing those teaching methods, by an open-ended question type.

(E) Assessment methods

The last main topic on assessment methods is asked about in questions twelve and thirteen. As with the previous questions, they also start with open-ended style question as follows:

1. Written examination
2. Oral examination
3. Presentation in a class
4. Thesis / Research projects
5. Course work / Projects

These five assessment methods are listed for respondents to choose how much emphasis should be given. The following question asks for respondents' own views about problems in implementing these assessment methods.

After asking about those five topics, two more questions follow in the English research,

and one question follows in the Japanese research. These questions are about an examination that is very important for secondary school students.

In English research, question fourteen asks whether GCSEs should change in the global age or not. Second, question fifteen asks whether A-levels should change in the global age or not. In Japanese research, question fourteen asks about an entrance examination to university. Those questions are very important and will be the key points for comparison of answers from the two countries.

There are several reasons for putting these questions. First, in the case of Japan, it is not too far from the truth to say that Japanese secondary education is regarded as a preparation for the entrance examination to universities. As already seen in the first chapter, most Japanese students need to survive highly competitive entrance examinations, for they are living in an academic career-oriented society. As a result, the original aims of the secondary school are ignored and all students have to do is just memorise a huge amount of knowledge. To put it another way, it may be true to say that secondary education may not change unless entrance examinations change in Japan.

In the same way, if the questionnaire asks about students' views about an entrance examination that basically applies to A-levels in England, it may be possible to find culturally and socially different opinions between England and Japan. However, the sample may not be large enough to validate any conclusion because the number of students who continue higher education in England is relatively lower.

Meanwhile, the GCSE is a national qualification test for the majority of pupils who attend secondary school education. At the moment, the English government is trying to raise all students' education levels higher than ever, as previously stated in chapter 1. In this respect, GCSE is one of the most important key issues in secondary education in England, in terms of examination. For this reason, the researcher concluded that it would be very important to ask students' views about not only A-level but also GCSE.

In the end, question fourteen and fifteen will be a very interesting part of this questionnaire.

After asking about examinations, there is one last question. The final question, question sixteen, asks for students' views about secondary schools. It asks how students hope to change or not to change secondary school education for the global age. Those three questions are the verbal question type to ask about in-depth students' views.

Before moving to look at the interview, it should be noted here that how the layout of the questionnaire is constructed. In the UK, it is relatively common to 'tick' the boxes, but not in Japan. Therefore, instructions in each question to 'tick' the right box are given in the English research, while instructions to 'circle' the appropriate number are given in the Japanese research. According to this difference, sufficient space is left for respondents in both questionnaires in English and in Japanese.

In the following section 2.2.3., I would like to describe another research project for this study, the interview.

SECTION 2. 2. 3. DESIGNING AN INTERVIEW

As already described in section 1. 1., the research targets in this study are both students and teachers. In addition to collecting students' views on education for the global age, it is also necessary to conduct another survey on teachers as follow up research.

In the case of research on teachers, it seems impossible to collect a large number of respondents during the short time available. In addition, in this research, collecting teachers' various points of views is needed. They should be able to give more personal and liberal answers to explore ideas on education for the global age. As a result, it seems appropriate to conduct interviews with teachers, using the qualitative method.

As many social researchers state, there are some limitations in interviewing, and they generally hold the same concept as qualitative research. First of all, interviews are a

very subjective technique so that the danger of bias always comes up. Additionally, it is time-consuming work so that a relatively small number of people can be interviewed. Furthermore, interviewing involves human relationships between interviewees and interviewers. Since the personal interaction in the interview affects our understanding of the human situation, the effect of interviewers and invasion of privacy is always one of the controversial disadvantages of interviewing (Bell, 1999; Kvale, 1996; Denscombe, 1998).

Nevertheless, interviews enable us to explore detailed information and individual perceptions. It also helps to gain meaningful insights influenced by cultural and social factors. While there are disadvantages of time, cost and geographical distance, interviews can follow up ideas and investigate in-depth information such as motives and feelings, which questionnaires can never do (Bell, 1999). This is the main reason why interviewing is used in various research projects (Merriam, 1988).

As Miles and Huberman (1994) illustrate, numbers and words are both needed to accomplish the worthwhile research project. Added to a questionnaire which contains quantitative methodology, the researcher considers that interviews containing qualitative methodology will be another way of obtaining effective and suitable data in this study.

2. 2. 4. QUESTION TYPE

The type of interview should depend on the nature of the topic and information an interviewer needs to find. Here it should be clear that there are two general types of interviews as follows.

First, there is the structured interview. It is basically no different from a questionnaire, and enables interviewers to aggregate and quantify the results easily (Bell, 1999). As it

takes the form of a questionnaire or checklist, which is completed by the interviewer, it saves a great deal of time for interviewers to analyse.

As a result, it is said that a structured interview is suitable for a first-time interviewer, although it may not give the most liberal and extended views of interviewees about the topic.

On the other hand, unstructured interviews can produce a great deal of valuable information. However, they create a problem for interviewers unless they have skill enough to control the process of interviewing. Unstructured interviews also consume a great deal of time to analyse for interviewers, since they may collect unnecessary information from respondents. Therefore, unstructured interviews are suitable for well-experienced interviewers, although providing the chance to acquire more liberal answers from respondents.

Judging from the above, both structured and unstructured interviews are very important for data collection. Therefore, in this study, a method between structured and unstructured interviews, called semi-structured interviews, will be carried out.

In addition to creating a structure for the interviews, there is another preparation to be decided before implementation. As previously stated, rather less-structured approach in questions is used, while the interviewer is not skilled enough to control an interview. Therefore, recording individual responses to acquire accurate, versatile and ample data will be needed, although there are some disadvantages such as difficulty in transcription, and the length of time needed for the work (Hopkins, 1989).

Moreover, it should be also noted that the telephone interviewing method is not used in this study. There are a few advantages of telephone interviewing, such as high response rate; less time consuming work and less cost than face to face interview (Neuman, 1997). Nevertheless, this method seems not to be appropriate for the researcher who needs to conduct interviews in her non-native country. In comparative studies, it may also be important for the researcher to observe the surroundings by non-verbal

communications and visual aids.

Now the contents of the interview should be described here. First, explanations about the study and what the researcher needs to collect in this interview are given to all respondents. In the next stage, all questions are based on questions in the questionnaire. They have been revised twice following advice by a supervisor. The questions are as follows:

1. What do you imagine is meant by “a global age”?
2. Do you think the aims of education for secondary schools should change to better prepare pupils for the global age? If so, how?
3. Do you think the curriculum content taught in secondary schools should change to better prepare pupils for the global age? If so, how?
4. Do you think the teaching methods in secondary schools should change to better prepare pupils for the global age? If so, how?
5. Do you think the methods of assessment in secondary schools should change to better prepare pupils for the global age? If so, how?
6. Do you think an entrance examination to university should change? If so, how?
7. What kinds of problems do you think will occur, if changes in the above questions are to be implemented?
8. Finally, please let me know if there is anything else which should change in education for secondary schools.

As can be seen from the above, all questions are similar to the ones in a questionnaire. These questions are to follow up answers from students as well as to acquire teachers’ extended views. Nevertheless what we should note here is question 1. Question 1 asks about teachers’ views about ‘a global age’, although this is not included in the key research questions shown in section 1. This is to help the respondents to imagine ‘a

global age' without the researcher's influence on their thinking. Based on answers for this question, the respondents are able to answer the following questions.

The targeted respondent population was set to be 20 secondary school teachers in each country to be interviewed in this study. The number is set to be sufficient as following up information for the main research of questionnaire.

In the next section, the research schedule and the data collection, which has been in England and in Japan, will be described.

SECTION 2. 3: THE DATA COLLECTION IN ENGLAND AND IN JAPAN

2. 3. 1. THE RESEARCH SCHEDULE AND DATA COLLECTION IN JAPAN

In this section, a research schedule which seems complicated to a degree, and the data collection conducted in Japan are described. After producing the last draft of the questionnaire, which was completed in October 1998, the researcher had planned to administer it to English students at first. However, it could not be accomplished because of an illness, which held up work for some time. Only after spending time in hospital and convalescing for about six months, the researcher was able to start her research project in April 1999 in Japan. Therefore, the research was conducted in Japan first.

Before conducting the questionnaire, a difficulty was found in the definition of a 'student teacher' in the case of Japan. Since teacher training courses are often treated as optional courses in most universities in Japan, it is very hard to clearly divide students between those who undertake teacher training courses and those who undertake other courses. Meanwhile, it is common to regard students at universities, which are established for teacher training, as 'student teachers' in Japan and they are equivalent to PGCE students in England. In order to make clear the difference between two types of students, the researcher has decided to administer a questionnaire to Japanese students

at universities which are especially for teacher training, and other students at other universities in this study. Therefore, the targeted respondent groups are as follows:

- 1 (group C): Japanese students at university undertaking a first degree in teacher training.
- 2 (group D): Japanese students at university undertaking a first degree.
- 3 (group E): Japanese secondary school teachers.

The data collection took place over two months, from April to May 1999. Beforehand, letters to two professors in two different universities in Japan, which asked permission to conduct the questionnaire to 100 students in each university were sent in December 1998.

One of them had been at the University of York as a visiting fellow, and the other is the president of the university where the researcher acquired her first degree. Since both of them knew the researcher and what she was studying very well, they allowed the researcher to conduct her research on their students. In addition, the professor who had been to the University of York taught about 60 students. These were not enough for the research, so he introduced another professor at a national university in Tokyo. Thus, these three professors agreed to help the research.

There were four universities where the researcher was allowed to carry out the questionnaire. First of all, the professor who visited York teaches education at the Nara Educational University in Nara, which has teacher training courses and lies in the western part of Japan. Secondly, the president teaches English Literature in Sagami Women's University in Kanagawa prefecture, next to Tokyo. In addition, he also teaches at Nihon University in Tokyo. Thirdly, the last professor introduced by the professor in Nara teaches education at Tokyo Gakugei University. This is another

prestigious university for teacher training and educational studies in Tokyo, the capital of Japan. There are more than 200 kilometres between the universities, and all of them cover the main cities in the eastern and western Japan.

In the next stage, the researcher tried to arrange a meeting with them before distributing questionnaires. This began in March 1999, when she was convalescing at home after leaving hospital.

First, the researcher telephoned the professor at Nara National University in March 1999. Since Nara was quite far from her home in Tokyo, he allowed the researcher to send about 70 questionnaires by post.

In addition, the president of her graduate university also allowed her to send about 100 questionnaires by post. He kindly agreed to administer them to 50 students each in two universities.

Lastly, as the researcher had never met the third professor, who had been introduced by the professor at Nara, she arranged a meeting to introduce herself and explain her research aims. At the meeting in early April 1999, he permitted the researcher to undertake a questionnaire to more than 50 students, with the kind help of another lecturer at his university. Hence, all three professors distributed her questionnaire to their students at their seminars.

Here it should be noted that a postal questionnaire can cause another methodological problem. Since questionnaires are implemented without any face-to-face explanations by the researcher who needs to encourage the respondents to answer all questions satisfactorily, there are some dangers such as poor response rate, incomplete or poorly completed answers (Denscombe, 1998). As another possible problem, it is not impossible for the respondents to ask questions about the questionnaire.

Nevertheless, it should be noted that this type of problem was not found in the vast majority of the respondents in this research. For one reason, the professors who generously conducted the questionnaire procedure for her recognised the significance

of this research, and need for detailed responses. This could be explained from their personal attitudes and enthusiasm towards education: two of them are experts in the area of educational studies, and the president of her graduated university is very keen on supporting his students and he is the very person who has warmly encouraged the researcher to study in England. On the whole, the researcher assumes that they have carefully explained her research topics to their students. Otherwise, it would not be possible to gain such detailed answers, regardless of the fact that they were supposed to be rather quantitative data. This will be described in detail in the chapter on the data analysis.

After acquiring permission from all three professors, 250 questionnaires were prepared. On 10th April 1999, 70 were sent to Nara, and 100 were sent to the president in Kanagawa. Lastly, the researcher visited the professor in Tokyo with 80 questionnaires on 15th April 1999.

It took several weeks to collect all responses and that was more than the researcher expected. The first response came from Nara University by post, on 24 April 1999. 59 questionnaires returned, and that meant the response rate was 84 per cent.

Following by Nara University, the researcher met the president and received 103 responses from Sagami Women's University and Nihon University on 8th May. As a result, the response rate reached, surprisingly, 103 per cent. This was because the president had made some extra copies of the questionnaire to administer them to all his students.

Lastly, the response from Tokyo Gakugei University was collected on 26th May. This was 35 answers, although it took more than a month. The response rate was, therefore, 44 per cent.

In the end, 103 responses from two regular universities and 94 from two special universities for teacher training and educational studies were collected. In total, 197 respondents were returned after one month, which nearly reached the original target of

the total population of 200.

We should now move on to describe the interview. After distributing all questionnaires in April 1999, the researcher produced interview questions for teachers with advice from her supervisor. Since the researcher did not have much time to exchange ideas on interviews with her supervisor in England by post, she used a fax machine and e-mail which saved a great amount of time. This may not be so important to note, but the researcher has strongly felt the wonderful power and effectiveness of technology which enables us to globally contact with people living over ten thousand kilometres away within seconds. It will be a good evidence that we are already in the global age.

Before looking at the secondary school which was chosen for this research, it is important to note that secondary schools in Japan which are equivalent to ones in Britain are basically divided into lower and upper levels as shown in chapter 1, section 1.2, figure 1. Therefore, the researcher looked for the both levels of secondary schools in Japan.

Although needing a large number of secondary school teachers for this study, the researcher was only able to make contact with a secondary school which combines lower and upper levels where she had graduated. However, the total population of teachers of these schools is around 100, so it seemed easy for her to access many teachers and to acquire answers from them. In addition, with the advice of a supervisor, the total population of the target was set at 20 teachers, which should be enough to follow up the previous questionnaire. Therefore, conducting an interview with one secondary school in Japan was implemented.

In school-based research, it is said that there is a problem for a researcher to develop an argument for doing a certain piece of research and acquiring acceptance and co-operation from the research targets (Hitchcock and Hughes, 1989). Keeping this difficulty in mind, the researcher contacted the head teacher in the secondary school in early May 1999, in preparation. After preparing the list of questions and meeting with a

vice-principal, the school allowed her to conduct an interview with its teachers.

All interviews were conducted in the teachers' room and taped with the respondents' permission. Respondents were randomly selected regardless of their age and gender, to collect views of various types of teachers.

Teachers' attitudes toward being interviewed were various. A few teachers, who were usually elderly and female teachers, seemed to be annoyed by her research and skipped appointments. On the other hand, there were a few teachers, who usually teach social studies, who were willing to be interviewed, even though they had not yet been asked to do so. In some cases, teachers did not agree to record their opinions. In general, however, many teachers kindly agreed to be interviewed.

It took exactly one week, and 21 interviews were satisfactorily recorded and 2 were dictated at the respondents' request.

When conducting an interview, several tasks of the interviewer for the quality and validity of the research were carefully implemented. For example, the researcher clearly elucidated the aim of her research, which needed the respondents' ideas, to each interviewee. At the same time, she emphasized that any kind of answers - even "no ideas" - could be useful information. Furthermore, she carefully tried to use any non-verbal skills like nodding to urge them to produce answers as many as possible and show their views. At the same time, she also tried not to give her views, to avoid bias. Each interview took 15 to 30 minutes, depending on each teacher's attitude towards her topic.

It will be explained carefully later, but it took about one month to analyse all the responses from students and transcription of recorded tapes. In the next part the research project in England will be described.

Figure 16.

Questionnaire The total target population: 200 (250) The total respondent population: 197 [79%]					
Students undertaking a first degree in teacher training The target population: 100 (150) [63%]			Students undertaking a first degree The target population: 100 (100) [103%]		
The Tokyo Gakugei University	35 (80) [44%]	94	Nihon University	45	103
The Nara Educational University	59 (70) [84%]		Sagami Women's University	58	
Interview The total target population: 20 (23) The total respondent population: 23 [100%]					
Teachers at Sagami Women's University Secondary School (Junior and High Schools)			21 teachers responded interviews with recorded. 2 teachers responded interviews without recording.		

* Numbers in round brackets indicate the gross number of distributed questionnaire.

* Numbers in square brackets indicate the response rate.

2. 3. 2. THE RESEARCH SCHEDULE AND DATA COLLECTION IN ENGLAND

In the case of England, students at the University of York and secondary school teachers in or near the city of York are the source of the data.

1 (group A): English students at university undertaking a PGCE course.

2 (group B): English students at university undertaking a first degree.

3 (group F): English secondary school teachers.

There are two reasons why the researcher has chosen this university. One reason was that the University of York was the most accessible university in England as the

researcher was studying there. Another reason is that York can be considered representative of England. For example, Huby et al. (1999) surveyed living standards in the city of York in many ways and reveal that it is close to the national average. Hence, it is appropriate to say that York is fairly representative of a provincial town in England and research in York will provide representative data of England.

We should now look at the research progress undertaken in England. First, the questionnaire was handed to PGCE students attending a teacher training course in May 1999. As the researcher was in Japan during that period for medical treatment, her supervisor conducted it on her behalf. As the supervisor helped to conduct it during his lecture, the response rate was 100 per cent with 87 respondents. Thus it reaches 87 per cent of the targeted population of 100.

The second stage of the research started in January 2000. Since Japanese samples had already been collected, English students undertaking first degree (in non-teacher-training) courses must have formed a counterpart to Japanese ones. Accordingly, English students who study Philosophy, English and related literature, Physics and Physical education should have been regarded as targeted sources for this research.

However, since there is no course for physical education in the University of York, students undertaking Mathematics were chosen as a replacement. Although Mathematics is not a related study to Physical education, the reason for choosing the course is accessibility. Since one of the lecturers in the department of Mathematics is a friend of the researcher, it was easier and more likely to lead to success for the researcher to administer questionnaires to his students in terms of accessibility. Thus, students in the four departments of Philosophy, English and related literature, Physics and Mathematics were chosen as sources for this research.

There were two methods of collecting data from students at the university. First, it was possible to directly distribute questionnaires to students by internal mail. However it might cause methodological problems such as poor response rate, as previously

explained. Another method for the researcher was to contact lecturers in each department, and asked them to permit her to administer questionnaires at their seminars or lectures. This method might be possible for the researcher to have face-to-face contact with students, and it would greatly encourage the respondents to answer the questionnaire. Since the researcher needed a response rate as high as possible, she chose the latter method at first.

First, copies of questionnaire were prepared. Since it is said that an average response rate for questionnaires in the UK can be around 60%, 150 questionnaires with a cover letter, which explained the research topic and purpose of the questionnaire, were produced in January 2000. At the same time, a letter to ask lecturers' permission to administer a questionnaire at their seminar or lecture was produced. Although it is not the main concern here, it may be worth noting that response rate for questionnaires in Japan is generally high in most cases, to the best of the researcher's knowledge (For one good example, see Shirasu, 1997).

Secondly, the researcher had to contact lecturers in the four departments. Since the researcher had no idea who would be sympathetic to this research, she randomly chose two lecturers from each department including the head of the department. As for the department of Mathematics, the researcher directly called her friend who was a lecturer in the department. Altogether, seven lecturers were chosen to ask their help for this study.

While the researcher sent letters to seven lecturers in January 2000, she visited offices of department of Philosophy, Physics, and English and related literature. In each office, non-confidential information of students such as e-mail addresses and colleges they belonged to was provided, and the researcher tried to collect that information in case of there were no replies from the lecturers.

What the researcher felt interesting in this stage was the different attitudes of the secretaries. A secretary in one department showed rather hostile behaviour by warning

that the researcher must not annoy students, although she provided some information about students in the end. On the other hand, secretaries in another department sympathised with the study and kindly provided information of students and lecturers. One reason is that one of the secretaries in the department of English and related literature had previously worked at the department of educational studies, and she was familiar with the research based study.

A few days later, one professor in the department of Philosophy politely refused to distribute questionnaires at his lectures, because his wife had expressed rather negative views on the questions asked in the questionnaire. After the researcher waited for replies around 10 days, there were no replies from two professors in the department of Physics and one lecturer in the department of English and related literature. After all, one each lecturer from the department of Philosophy, English and related literature, and Mathematics (three lecturers altogether) agreed to help this research.

One professor of the department of Philosophy agreed to distribute questionnaires at all his seminars on behalf of the researcher, and he reported that the number of students he taught was 38. Although the researcher had no chance to meet with the professor, a process of distributing questionnaires was carefully discussed through e-mails. In the end, the researcher prepared 38 questionnaires and left them in the office of the department of Philosophy in early February.

The response rate was quite low and took time to collect from students at the department of Philosophy. By the end of the Spring term, which was in middle of March 2000, 10 replies were collected and the response rate was 26.3 %.

Apart from the department of Philosophy, the researcher succeeded in meeting a lecturer in the department of English and related literature and discussed how to distribute questionnaires at his lectures in early February 2000. The lecturer had been to Japan for more than three years, and he showed great sympathy with the study. After a meeting, he agreed to distribute questionnaires at his lectures on behalf of the

researcher. Since the researcher had expected that the response rate from students could be quite low, another 150 questionnaires were prepared for students of English and related literature. Copies of questionnaires were submitted to the lecturer on 9th of February 2000.

After waiting for a few weeks, the researcher found out that the response rate from students at English and related literature was incredibly low, and only 20 replies were collected altogether. The response rate was as low as 13.3%. Since the researcher needed to collect as many samples as possible, especially from students at the department of English and related literature, she decided to contact all students in the department through e-mail and directly asked their help in the middle of February. Before distributing questionnaires to all students directly, the researcher needed to ask their permission, since some of them might already have received a questionnaire at a lecture in February.

This method was unexpectedly successful and 55 students agreed to fill in a questionnaire. At this moment, there were no extra copies of questionnaires, another 55 questionnaires were newly prepared and sent to the students by internal mail. By the end of June 2000, the number of the respondents collected by this method became 32, 58.2% of response rate. In total, 52 students at the department of English and related literature returned a questionnaire and the mean response rate was 15.6%.

As for the research progress for students in the department of Mathematics, the lecturer who is a friend of the researcher, suggested distributing questionnaires through his lecture and seminar. Accordingly, he provided some information of students in the department of Mathematics. Therefore, the researcher randomly chose 30 students and distributed questionnaires to them by internal mail in the end of January 2000. By the end of the spring term, 9 students replied and the response rate was 30.0%.

Meanwhile, there were no replies from professors in the department of Physics, so the researcher visited the office in the department to ask a secretary who would be

sympathetic to this study. However, the secretary suggested that it would take time to get a reply from professors, showing little sympathy with the study by shutting the door after a few seconds' talk. This short talk with the secretary was enough to make the researcher judge that it might be a less effective way to contact other lecturers in the department of Physics. In the end, the researcher decided to contact students in the department of Physics by e-mails and distribute questionnaires through internal mail. Since none of the students had received a questionnaire yet, the researcher judged that reconfirming of permission for this research to students could be waste of time. Therefore, the researcher sent questionnaires and e-mail to students at the same time.

The researcher sent questionnaires to all 78 first year students at Physics in early February 2000. Since the number of the respondents from the department of Physics was not enough yet at this moment, the researcher continued to administer questionnaires after the Easter holidays.

In May 2000, another 75 questionnaires were prepared for all second year students at Physics. The researcher chose the same method as before: sending questionnaires and e-mail at the same time, since this method was the most successful so far. In the end, 45 Physics students replied by the end of the Summer Term in the end of June and the response rate was 29.4 %.

In total, 430 questionnaires were distributed to English students and 116 students replied by the end of June 2000. The total response rate was 26.9%.

As for the list of the teacher interviews, it took six months, from February to July 2000. First, the researcher checked secondary schools in the York area in Yellow Pages. The number of secondary schools around York is not many, and 11 secondary schools were chosen in consideration with accessibility.

In the various methodological tasks which are described earlier, the researcher's highest priority is being polite. Since it is obvious that teachers will receive some 'extra' work from a total stranger, the researcher considers that firstly sending a letter asking

permission, and if teachers accept, contacting by phone or other methods will be the most polite way to conduct interviews.

Accordingly, in 7 February 2000, letters asking permission to conduct interviews with teachers, enclosing the contents of questions and self-stamped envelopes were sent to those secondary schools' headteachers.

Replies from headteachers were very slow, a problem which the researcher had been concerned about. During February and March, five of these schools' headteachers politely refused research. After all, only one headteacher in one of those secondary schools kindly permitted a researcher to conduct an interview in early March. Although reminders had been sent to the rest of five schools in late March, only one school's headteacher replied and again refused the research in May.

After consulting about the critical situation of the research progress with a supervisor in early March, the supervisor suggested the researcher visit a few secondary schools nearby in order to collect school prospectuses. His idea was to send letters directly to staff, whose names should be listed in school prospectuses. Accordingly, school prospectuses from another two secondary schools were collected, and the researcher sent letters to nine senior members including headteachers of these two schools in the middle of March. After waiting for a few days, four out of nine teachers permitted the researcher to conduct interviews with them by the end of March.

Meanwhile, the researcher asked permission from her English friends, who teach at secondary schools. One of them kindly replied for an interview in April, and two other friends also permitted the researcher to conduct interviews with them in July. In total, three friends of the researcher took part in this research.

After the Easter holidays, four out of six teachers who are friends of the supervisor permitted the researcher to conduct interviews. However, it should be noted that one of them had answered questions in writing. In addition, one of those teachers kindly introduced another two his colleagues to the researcher, and these teachers also took

part in interviews. Added to this, one out of six teachers who are friends of a professor in educational studies in York University also permitted the researcher to conduct an interview with him.

Here it should be noted that two of those teachers work at a Sixth Form College, which is for pupils aged 16 to 18 years. Although this type of institution is not compulsory but is for students who will continue further study at university and who would like to have vocational qualifications, it is included in secondary education (Holt et al., 1997). Moreover, education in Sixth Form is strongly related to A-levels which is equivalent to the entrance examination to university in Japan, so including views of some teachers at Sixth Form College as a resource is necessary to some extent.

At this stage, the researcher visited another two secondary schools and one Sixth Form to conduct interviews with these seven teachers from May to June 2000. The researcher also collected a school prospectus from one of the schools during these interviews.

Meanwhile, another 10 letters were sent to staff in a secondary school in the middle of May. However, only one of them replied and accepted an interview. The researcher needed to prepare another nine letters for teachers in two secondary schools in early June. Three of them accepted interviews, and one of them politely refused an interview. In addition, the researcher tried to contact part-time students at the department of educational studies in York University, who are teaching at secondary schools in York. For this method, a workshop for the research students at educational department, which is normally held in the end of each academic term, was one possible opportunity for the researcher to contact part-time students. After the workshop held in June, the researcher succeeded in conducting an interview with one student who is teaching at secondary school.

The researcher also used high technology to look for participants for the research. In the York University web site, there is a page for university students to note small advertisements, which are used for miscellaneous purposes. The researcher put an

advertisement there, asking for volunteers from teachers at secondary schools. After the second trial, one secondary school teacher who is a friend of one university student gave an e-mail to the researcher showing her interest to take part in the research. Accordingly, the content of questions was sent through an e-mail, and another interview was set with this teacher in June.

In total, 21 teachers at six secondary schools and one Sixth Form College in York were interviewed for the research. It took six months with great efforts, time, and cost.

Although some difficulties were expected to a degree, there are two main difficulties in research progress in the case of England. What the most critical problem for the researcher was that there was a lot of people who never replied. In fact, the researcher prepared 56 letters with self-stamped envelopes, and only 20 replies were collected, of which seven were refusing the interviews. This means that only 35.7% of the teachers who had received a letter replied, and 23.2% of them accepted the interviews.

One problem might be that the time when the research had been conducted might not be appropriate. After Easter, all schools have to prepare for examinations and all teachers have to commit a great deal of time to them.

However, it is also true there are some people who feel that it is the matter of politeness to reply a letter, whether or not a content could be a refusal. Although it is not sure if it is a cultural difference, at least in the case of Japan, it seems to be impossible to expect no replies when self-stamped envelopes are enclosed, even if the initial proposal for the respondents is unreasonable. In this respect, the researcher as a Japanese felt a difficulty with this kind of 'a cultural gap' between Japanese and English people.

Another difficulty is time. It applies not only for interviews but also questionnaires to English students. Although the total response number of interviews and questionnaires became sufficient for the study, the whole research in England took almost three times the case in Japan. It caused a lot of stress for the researcher, as almost all researchers may feel when they conduct research.

Apart from the above difficulties in research progress, it should be noted that there were no English respondents who rejected tape-recording of interviews. In addition, almost all of the interviewees seemed to try to answer the questions with careful consideration. These are worth noting as a positive side of the research progress in England.

Before moving to the next section, there are a few methodological issues which should be noted. First, since interviews included teachers from seven different secondary schools in York, it may cause some difficulties when they are compared with findings from Japanese teachers in one school. In the chapter of findings and analysis, this point will be always kept in mind.

Secondly, during interviews, it is needless to say that several tasks of the interviewer for the quality and validity of the research have been carefully implemented. Meanwhile, as Japanese, the researcher considered these interviews were not only just for collecting data but also could be a good opportunity for the English respondents to experience a touch of Japanese culture. Therefore, a card showing typical Japanese scenery and traditional buildings was presented to each interviewee, after finishing interviews. The researcher personally hopes this could be one of the steps to know different countries and cultures, as one of the main aims of education for the global age. Now a summary of the research process in England, and the total number of the respondents for questionnaires in England and Japan is shown as follows.

Figure 17.

Questionnaire The total target population: 200 (517)			
The total respondent population: 203 [39.3%]			
Students undertaking a PGCE course		Students undertaking a first degree	
The target population: 100 (87) [100%]		The target population: 100 (430) [26.9%]	
The University of York	87	The University of York	116
Interview The total target population: 20 (56**)			
The total respondent population: 21 [23.2%**]			
Teachers at 6 secondary schools and 1 Sixth Form College in York are interviewed. Of which one teacher answered questions in writing.			

* Numbers in round brackets indicate the gross number of distributed questionnaire.

* Numbers in square brackets indicate the response rate.

** These figures indicate the number of letters prepared and the response rate for that. The number of the respondents, who were directly contacted by the researcher, such as the researcher's friends is not included.

Figure 18.

The total population of English and Japanese respondents for questionnaires: 400
The total population of English and Japanese respondents for interviews: 44

SECTION 2. 4. THE PROCESS OF DATA ANALYSIS

In this section, I would like to describe how the data was analysed. First of all, responses from each country were separately analysed. For one reason, there was a time gap between the data collected in one country and the other. It will be reasonable for the researcher to analyse the data each country to country, to compare each result systematically.

In each process of analysis, I have attempted to mention the social and cultural aspects of each country, which have already been described in the chapters of the literature review. It is an unavoidable technique to make this ethnographic work acceptable

(Denscombe, 1998).

In the case of the questionnaires, statistics from questions with rating scales were simply constructed and the Statistical Package for the Social Science (SPSS) is used for quantitative and statistical analysis. In this study, the one-way unrelated analysis of variance (ANOVA) is mainly used for a statistical analysis. For one reason, ANOVA tests can compare scores of more than two groups, while others, such as t-test, look at differences between only two groups. For example, it is possible to compare differences in the means of scores from different curriculum areas which are shown in the previous section, if we use ANOVA. In addition, ANOVA can investigate which group is significantly different from others. This is difficult to do by other tests.

The difficulties will be rather found in analysing answers for open-ended questions in the questionnaire and interviews: qualitative analysis. Quantitative analysis is based on the statistics and the numbers are the tools to reveal features of social life. By contrast, qualitative data, which are in the form of relatively imprecise and context-based words, are closer to raw data and its analysis is less standardised (Neuman, 1997).

Nevertheless, there are a few rules for qualitative analysis to avoid implicit assumptions, biases and ill-defined concepts. In this study, analysis of qualitative data follows the instruction cited by Denscombe (1998).

1. Coding and categorising the data. This means breaking the data down into units for analysis and categorising the units.
2. Reflections on the early coding and categories.
3. Identification of themes and relationships.
4. Return to the field to check out emerging explanations.
5. Develop a set of generalisations.
6. Use the new generalisations to improve any relevant existing. (pp. 210-212)

In consideration of social research, the issue of validity, reliability, and credibility are always discussed, and here some methodological issues of data analysis should be

noted.

As for credibility, it requires the researcher to be as objective as possible, and to avoid individual bias in any processes of analysis. Credibility covers an area of the ethics of social research, which has been previously described. Keeping this in mind, I have simply noted *all* words from answers for open-ended questions in the questionnaire, although this method takes a great amount of time.

Reliability refers to “the degree of consistency with which instances are assigned to the same category by different observers or by the same observer on different occasions” (Silverman, 2001, p. 225). In other words, the point is that someone else can have the same results and arrive at the same conclusions as the researcher has done.

Validity means, in general, that the data and the methods are ‘right’. In other words, the researcher needs to measure suitable indicators of the concept to get accurate results (Denscombe, 1998).

To make sure of these issues, some techniques are required for researchers, e.g., using mechanical recording devices (Sarantakos, 1998). Those issues regarding validity and reliability were carefully considered through the whole process of the data analysis in this study. Accordingly, all interviews from secondary school teachers were transcribed noting *any* word teachers spoke and directly quoted, when they are necessary.

Here I should note a problem, which I have faced in the process of data analysis. In the data from questionnaires to English students, there arose linguistic problems. As already noted in the methodological limits of comparative research, some language cannot be understood by the researcher whose first language is not English. In that case, the researcher always asked for help from native English speakers, often those who were her colleagues, to understand and collect accurate data.

In addition, transcription of tapes used for interviews with English teachers was a hard task for the researcher. Although the researcher tried to transcribe the tape as long as possible, in the final stage she asked native English speakers for a double check if a

transcription was correct word for word.

Meanwhile, another linguistic problem lies in translating Japanese data into English. Although most Japanese answers were translated by the researcher, very careful discussions were conducted with native English speakers in order to translate them understandably as well as accurately in English.

After this time-consuming process, all opinions were carefully categorised by selecting the same words or meanings.

After finishing this process, data analysis went on to the final stage: a comparative study. Results from each question, which have already been generalised to some extent by the researcher, were carefully compared. In this stage, what the researcher should give great attention to is to avoid cultural interference (Hantrais and Mangen, 1996). I also tried to follow the principles such as:

- Understand the case. It is crucial to have understood the dynamics of each particular case before proceeding to cross-case explanations.
- Avoid aggregation. Cases cannot simply be idly lumped together, summarising “similarities and differences” on some common variables of interest.
- Preserve case configurations. The network of conditions - causes, effects, outcomes, and their temporal sequence - within each case must be protected during analysis.
- Combine variable-oriented and case-oriented strategies.
- Inquire into deviant cases.
- Look for typologies, case families.
- Avoid forcing. Not to push cases too quickly or abruptly into an explanation or into families. (Source: Miles and Huberman, 1994, p. 173)

The researchers should also be strictly objective as long as possible in this stage, and I have attempted to accomplish this matter through the whole process. For example, when there was an opportunity for the researcher to analyse some results caused by

cultural issues, opposite views were noted and I pointed out that some exceptions would occur. In the following chapters, findings and analysis will be described.

CHAPTER 5 PRESENTATION AND ANALYSIS OF FINDINGS FROM JAPANESE STUDENTS AND TEACHERS

In this chapter, analysis of findings from the research undertaken in Japan are described. As previously explained in chapter 4, there are six groups targeted as a source for this research as follows:

Group A: English students at university undertaking a PGCE course.

Group B: English students at university undertaking a first degree.

Group C: Japanese students at university undertaking a first degree in a teacher training course.

Group D: Japanese students at university undertaking a first degree.

Group E: Japanese secondary school teachers.

Group F: English secondary school teachers.

The aim of this chapter is to describe the findings and analysis of Japanese samples from groups C, D, and E. The chapter is divided into two sections in order to clarify the important findings. In section one, data from questionnaires which were collected from groups C and D will be shown together with detailed analysis. In section two, results from interviews with Japanese teachers of group E will be shown with qualitative analysis. Throughout each section, the most important findings for this study will be highlighted.

SECTION 1. PRESENTATION AND ANALYSIS OF QUESTIONNAIRE DATA FROM JAPANESE STUDENTS

In this section, findings from groups C and D are described in accordance with the key questions which are shown in chapter 4. In order to make the findings clearer, diagrams showing percentage frequencies in each question will be provided when needed. The methods of analysis used in this section are both quantitative and

qualitative analysis in accordance with question types.

Before describing the findings from the main questions, I would like to start by looking at the background information of the students collected from the questionnaires. It is noted that the response rate will be omitted here, since it has already been described in the previous chapter.

Abbreviations for the name of each university and groups are used as follows:

NUE for the Nara University of Education

TGU for the Tokyo Gakugei University

NU for the Nihon University

SWU for the Sagami Women's University

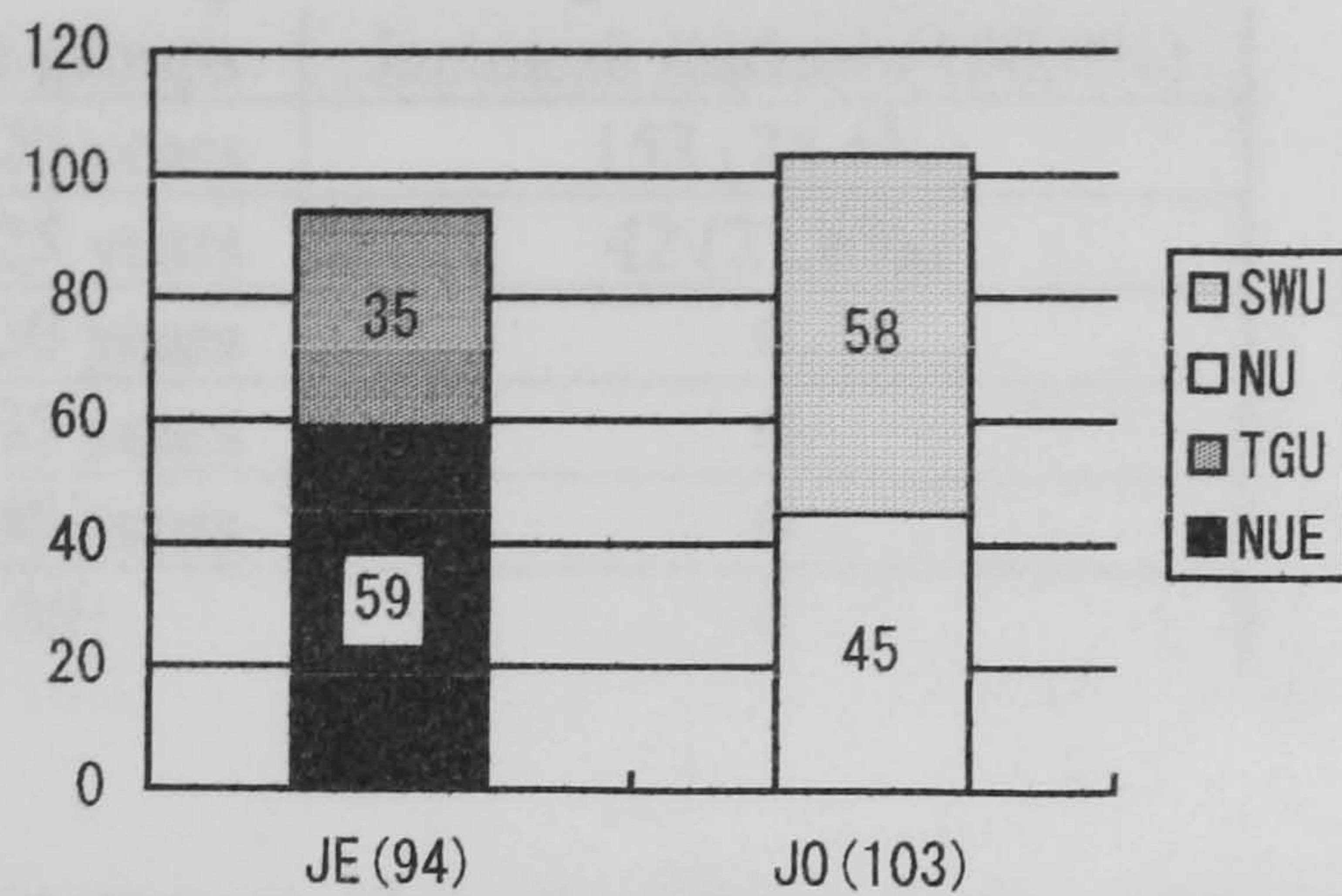
JE for the Japanese students undertaking a first degree in a teacher training course (group C).

JO for the Japanese students undertaking a first degree (group D).

SECTION 1.1. BACKGROUND INFORMATION

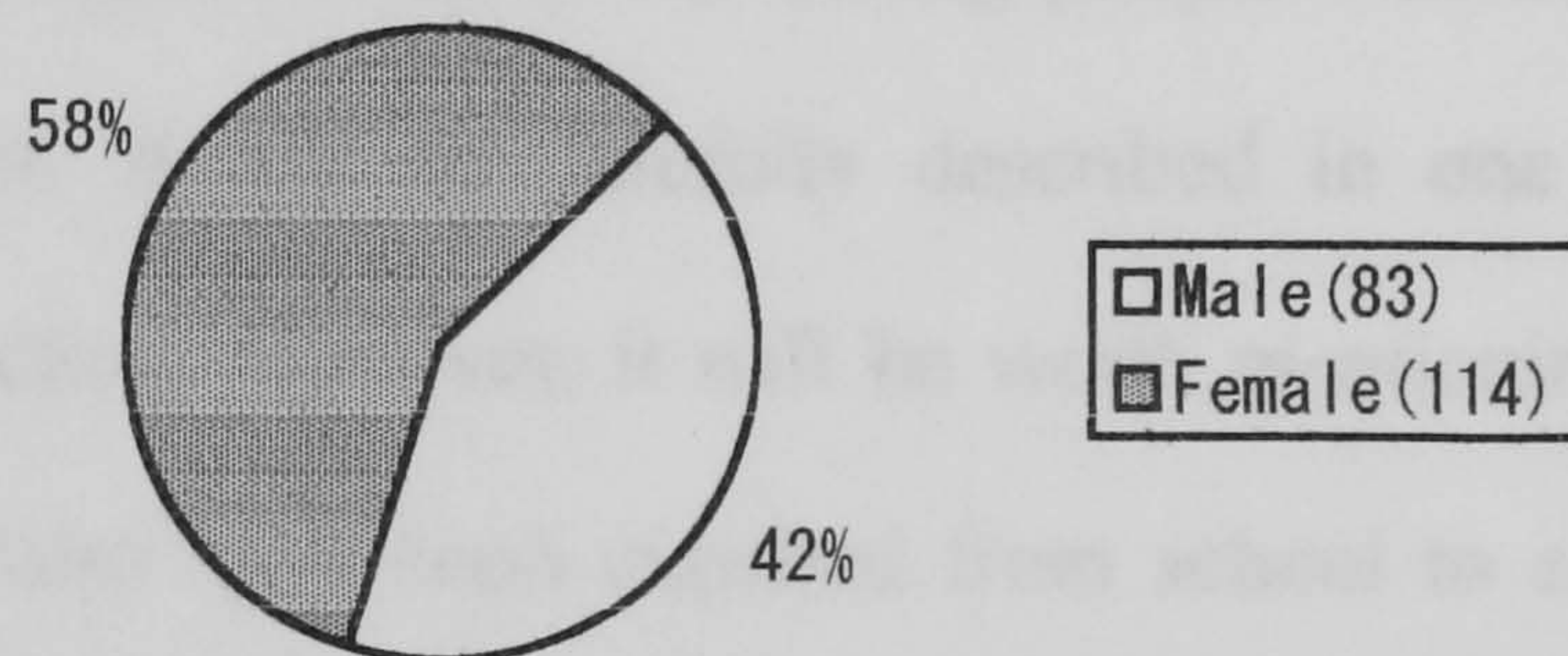
We start by looking at the total respondent population. Although the number of the students from each university was not well balanced, the respondent population between groups JE and JO was similar in terms of the total number (see figure 19). It will be recognized that the collected number from each group is appropriate for comparing results.

Figure 19: The total respondent population



In addition, the respondents consist of approximately 60 per cent of women and 40 per cent of men as follows:

Figure 20: Sex of respondents



One simple reason why there are more female than male respondents is that one of the Japanese universities chosen in this research is only for women (SWU). Although it is not a main concern of this study, there are many universities and colleges only for women in Japan as described in chapter 1.

Nevertheless, this result may not have a significant influence on the main questions, since the proportions in the research are not very different in the end.

The following information from data indicates a cultural aspect of Japanese universities:

Figure 21: Age of respondents

Age groups	Japanese students(100.0%)
18-20 years	153 (78.4%)
21-25 years	42 (21.6%)
26-30 years	0
31-35 years	0
36-40 years	0
40+	0

The above figure demonstrates that all of the Japanese students are under 26 years old. One reason may come from the inflexibility of the university admission system in Japan. In some Japanese universities, including SWU, there is a strict limitation which makes it very difficult for adult (mature people) to enter, although the Japanese government has recently encouraged lifelong learning.

This inflexible system applies even to the young people who have been expelled from secondary school. It will be carefully described in one of the interview contributions in the section. However, it will be worth mentioning that there is an opportunity for those who have been expelled from school to enter university by acquiring an official qualification called *Daiken*, and the number of people who apply for this examination are rapidly increasing (Nihon Keizai Shinbun, 2000c). The final background information of the Japanese respondents is about the curriculum areas as follows:

Figure 22: The curriculum area

JE (NUE AND TGU)		JO (NU AND SWU)	
Calligraphy	9	Physics	28
Music	2	Philosophy	12
Arts	1	Physical education	5
Comparative culture (English)	10	English literature	58
International culture (English)	4		
Japanese	2		
Social science	64		
Mathematics	1		
Chemistry	1		

What we notice here is that the curriculum area of the Japanese students is rich in variety. One of the reasons is that the Japanese data were collected from four universities selected for convenience of access. Another reason is that the curriculum area of the Japanese sample represents the subjects taught by the professors and lecturers who have undertaken the questionnaires on behalf of the researcher. In fact, there was no opportunity for the researcher to choose the students' curriculum area in the case of Japanese research.

Judging from the above background information, it is appropriate to say that the Japanese samples collected for this study may be satisfactory enough to represent the views of all Japanese students at university.

In the following parts, which are divided into four according to key questions, results will be demonstrated with detailed analysis by using both quantitative and qualitative methods.

SECTION 1.2. VIEWS ABOUT STUDENTS' EDUCATION AT SECONDARY SCHOOL

As previously stated in chapter four, in section 1.3., one key research question is to explore students' views about current education in secondary school. It enables the researcher to look at the effectiveness of current education systems and to consider possible ways to change secondary school education in the global age. In the questionnaire there are two questions which ask about the degree of satisfaction of the respondents' secondary school education. In those questions, percentage frequencies of answers will be shown. In addition, a comparison will be described by using the one-way unrelated analysis of variance (ANOVA), and the Chi-square test. Accordingly, in this study basically ANOVA is used to conduct detailed statistical analysis to find a relationship between the results and each student's background as follows:

- A. Curriculum area (ANOVA. A)**
- B. Age (ANOVA. B)**
- C. Sex (ANOVA.C)**
- D. University (ANOVA.D)**
- E. Courses: differences between JE and JO (ANOVA.E)**

The data of the respondents' background as well as answers are put as scores when using ANOVA. The following table shows how the data is divided in scores.

ANOVA	scores	
A. Curriculum area	1	Social science
	2	Mathematics
	3	Chemistry
	4	Calligraphy
	5	Music
	6	Arts
	7	Comparative culture
	8	International culture
	9	Japanese
	10	Physics
	11	Philosophy
	12	Physical education
	13	English literature
B. Age groups	1	18-20 years
	2	21-25 years
	3	26-30 years
	4	31-35 years
	5	36-40 years
C. Sex	1	Male
	2	Female
D. University	1	TGU
	2	NUE
	3	NU
	4	SWU
E. Courses	1	JE
	2	JO

In addition, answers for questions which give five numerical responses are also divided in 5 scores in ANOVA as follows:

	Scores
Very useful	1
A bit useful	2
Neither useful nor useless	3
A bit useless	4
Very useless	5

Above all, statistical analysis looking at a difference between courses (JE and JO) and 5 scores in answers (ANOVA.E) will be the main concern through all the key questions.

Apart from ANOVA, another statistical test is used in this study. It is normally recognized that the Chi-square test will be better when looking at a difference in two samples when there are only two categories for their responses (in a table of two columns and two rows), such as a relationship between yes-no answers and sex of respondent (Coolican, 1994). In this case, the Chi-square test is used and frequency data rather than scores will be presented. In addition, qualitative analysis will follow the above statistical analysis. We begin by looking at question 1.

Question 1. How satisfied are you now with the education you received when you were a pupil in secondary school?

The following figure shows the finding from Japanese students. The number in each category is not an observed but a percentage frequency, since it would be easier to compare a difference between each group. Moreover, a graph shows findings from JE and JO, in order to clarify the difference between the two groups.

Figure 23. Question 1.

Scores	Very satisfied	A bit satisfied	Neither satisfied nor dissatisfied	A bit dissatisfied	Very dissatisfied
JE (100%)	16.8%	32.0%	30.7%	15.8%	4.7%
JO (100%)	10.8%	39.6%	25.7%	15.8%	8.1%
Altogether	13.8%	35.8%	28.2%	15.8%	6.4%

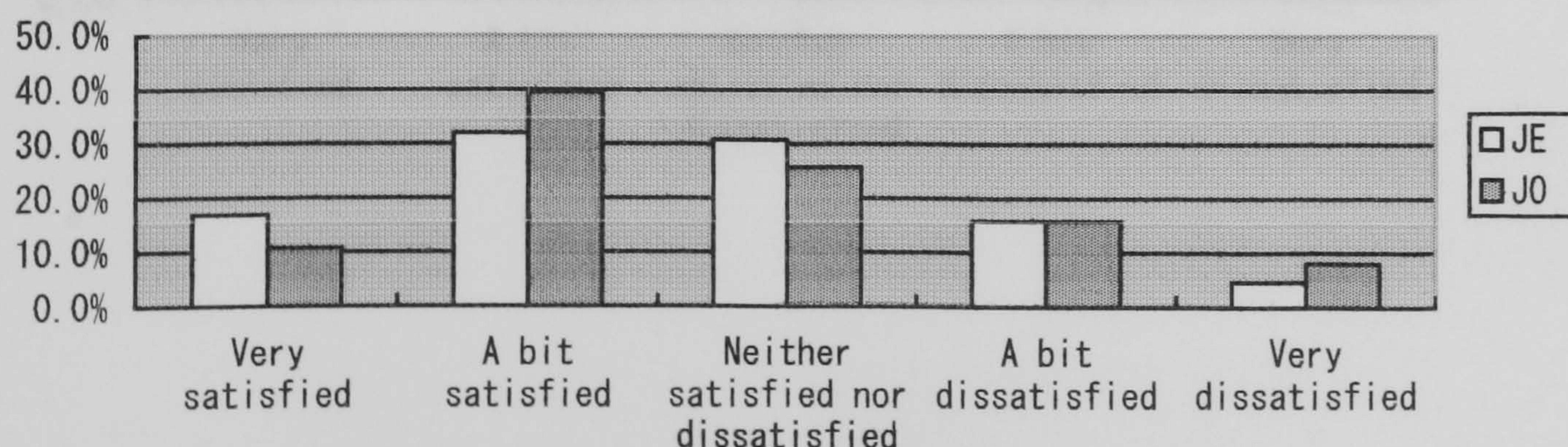


Figure 23

According to figure 23, there seems no significant difference in findings between JE and JO, and it is confirmed by ANOVA. The most important finding in this question is that most of the Japanese students regardless of their background are basically satisfied with their secondary school education (49.6%) or they feel they are neither satisfied nor dissatisfied (28.2%). In addition, other relationships between the findings and students' background are not found.

To clarify this finding, the following question, which reveals the degree to which the respondents are satisfied with their secondary school education is useful.

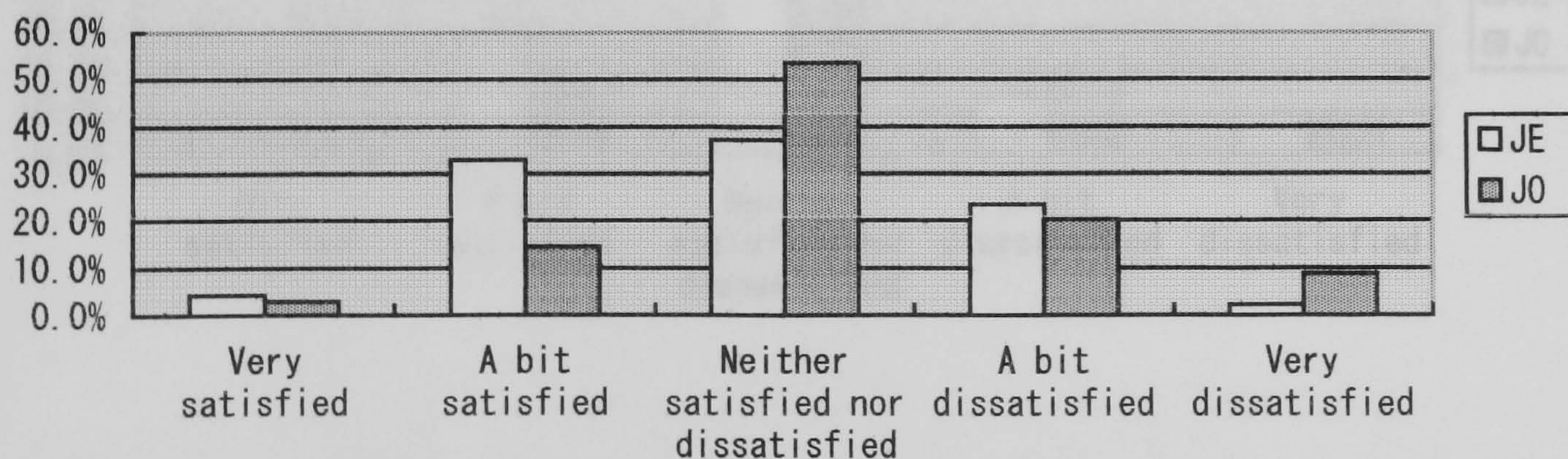
Question 2. How satisfied were you, in general, with the following issues when you were a pupil in secondary school?

Figures 24-30

Q.2.1. The content of school subjects

Figure 24.

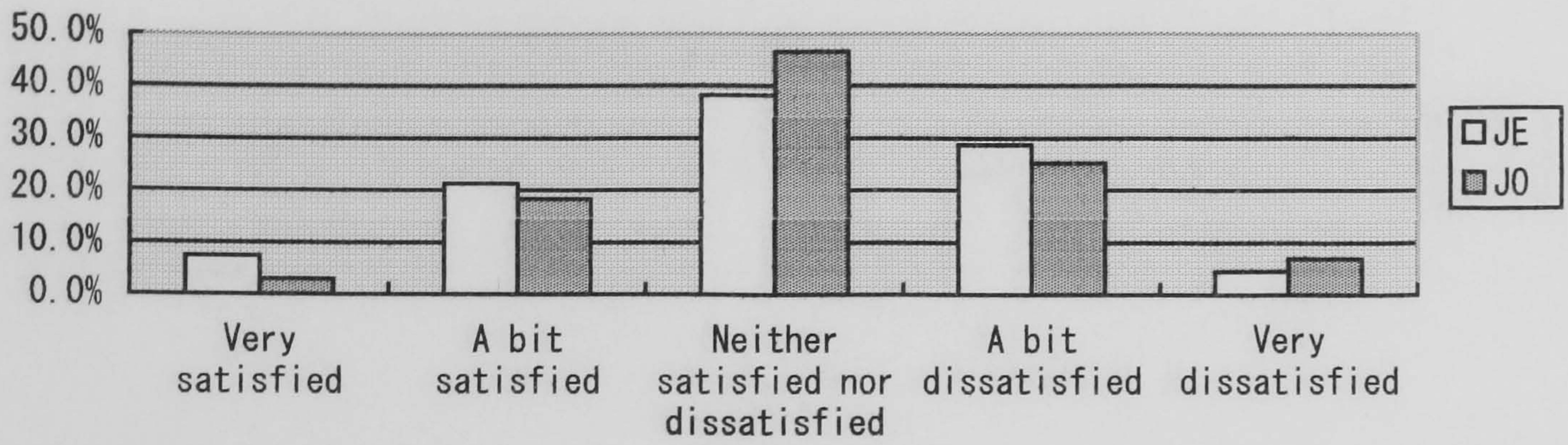
	Very satisfied	A bit satisfied	Neither satisfied nor dissatisfied	A bit dissatisfied	Very dissatisfied
JE (100%)	4.2%	32.9%	37.2%	23.4%	2.3%
JO (100%)	3.0%	14.6%	53.4%	20.3%	8.7%
Altogether	3.5%	23.3%	45.6%	21.8%	5.8%



Q.2.2. Teaching methods.

Figure 25.

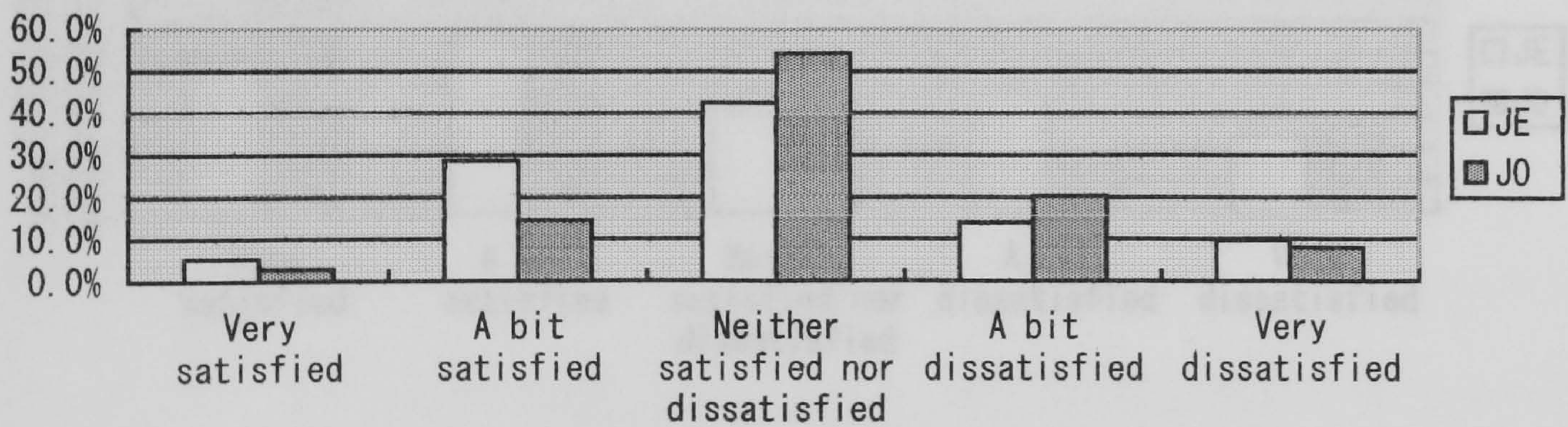
	Very satisfied	A bit satisfied	Neither satisfied nor dissatisfied	A bit dissatisfied	Very dissatisfied
JE (100%)	7.4%	21.2%	38.2%	28.7%	4.5%
JO (100%)	2.9%	18.4%	46.6%	25.2%	6.9%
Altogether	5.0%	19.7%	42.6%	26.9%	5.8%



Q.2.3. Pace of learning in each subject.

Figure 26.

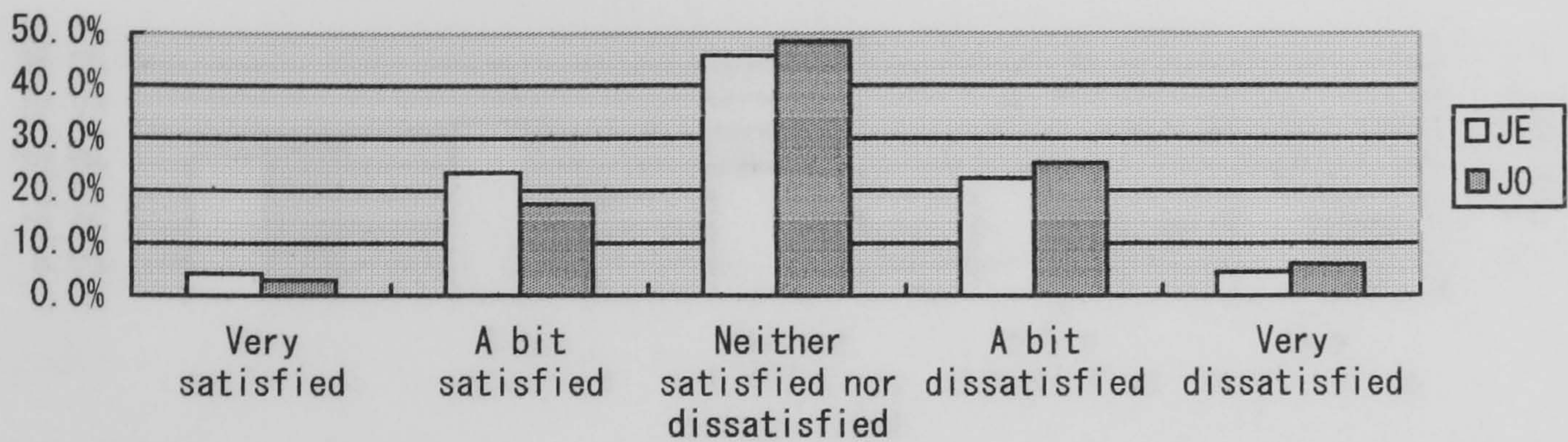
	Very satisfied	A bit satisfied	Neither satisfied nor dissatisfied	A bit dissatisfied	Very dissatisfied
JE (100%)	5.3%	28.7%	42.5%	13.8%	9.7%
JO (100%)	2.9%	14.5%	54.3%	20.3%	8.0%
Altogether	4.0%	21.3%	48.7%	17.2%	8.8%



Q.2.4.Methods of assessment.

Figure 27.

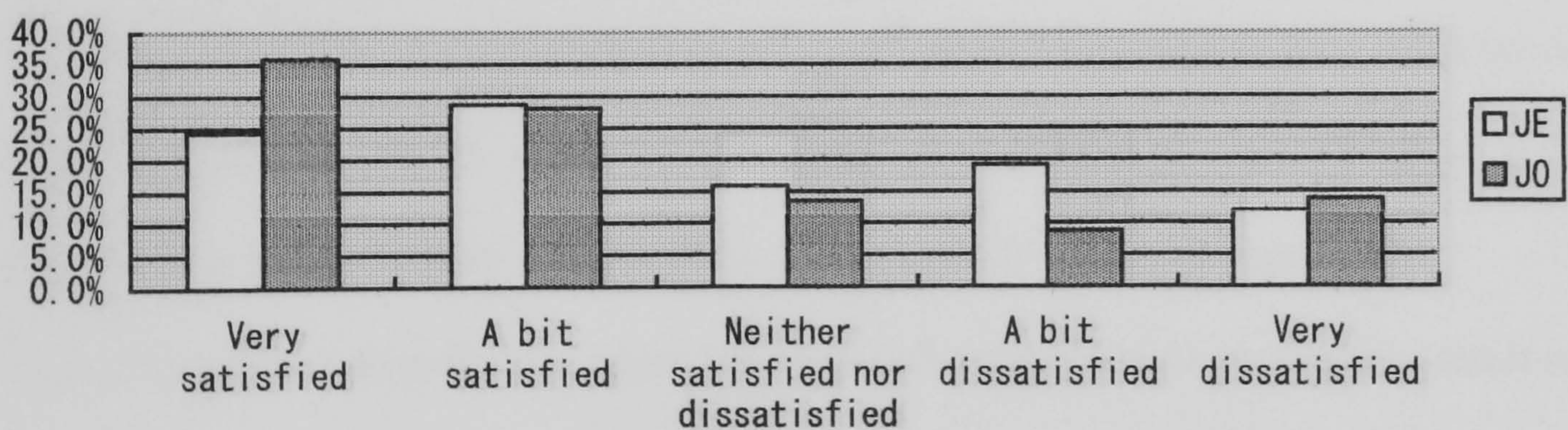
	Very satisfied	A bit satisfied	Neither satisfied nor dissatisfied	A bit dissatisfied	Very dissatisfied
JE (100%)	4.2%	23.4%	45.7%	22.3%	4.4%
JO (100%)	2.9%	17.4%	48.5%	25.2%	6.0%
Altogether	3.5%	20.5%	47.2%	23.8%	5.0%



Q. 2.5. Relationships with school friends.

Figure 28.

	Very satisfied	A bit satisfied	Neither satisfied nor dissatisfied	A bit dissatisfied	Very dissatisfied
JE (100%)	24.4%	28.7%	15.9%	19.1%	11.9%
JO (100%)	35.9%	28.1%	13.5%	8.7%	13.8%
Altogether	30.4%	28.4%	14.7%	13.7%	12.8%



Findings & Analysis

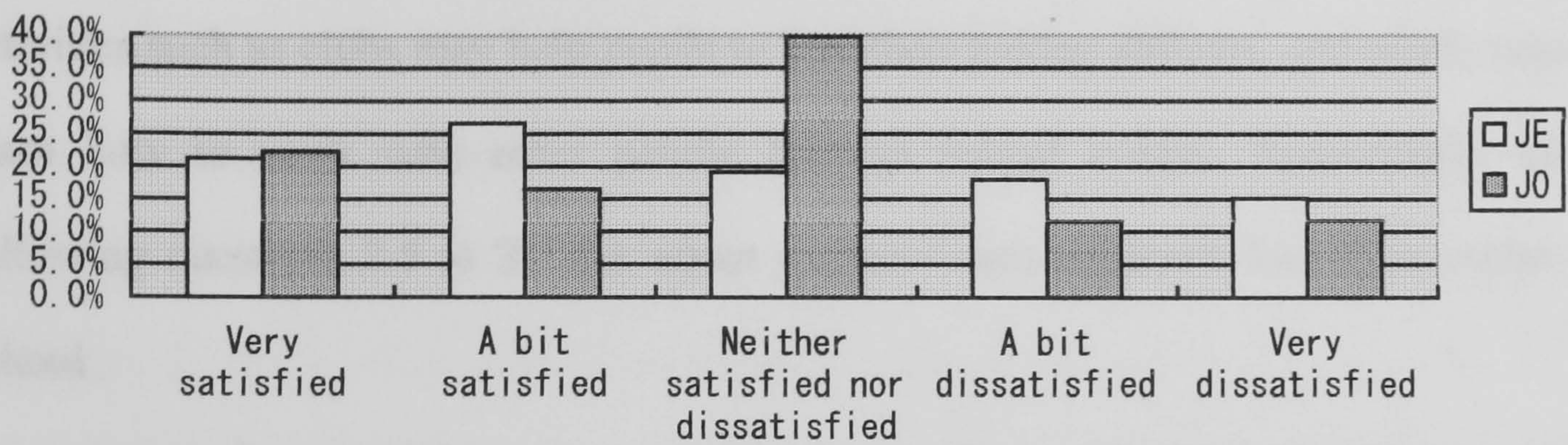
Questions 2.1 to 2.4 ask about academic issues in secondary school. In terms of comparisons, there is basically no significant difference between the Japanese students' groups although JE are more positive about the content of school subject which they have studied (ANOVA.E: $F = 6.019, P < 0.05$).

According to figures 24 to 27, it is possible to say that the results show that most Japanese students regardless of their background are neither satisfied nor dissatisfied

Q.2.6. Social activities (clubs, societies).

Figure 29.

	Very satisfied	A bit satisfied	Neither satisfied nor dissatisfied	A bit dissatisfied	Very dissatisfied
JE (100%)	21.2%	26.5%	19.1%	18.0%	15.2%
JO (100%)	22.3%	16.5%	39.8%	11.6%	11.8%
Altogether	21.8%	21.3%	29.9%	14.7%	12.3%



Q.2.7. School events.

Figure 30.

	Very satisfied	A bit satisfied	Neither satisfied nor dissatisfied	A bit dissatisfied	Very dissatisfied
JE (100%)	20.2%	27.6%	21.2%	17.0%	15.1%
JO (100%)	17.4%	19.4%	31.0%	22.3%	9.9%
Altogether	18.7%	23.3%	26.3%	19.7%	11.6%



Findings & Analysis

Questions 2.1 to 2.4 ask about academic issues in secondary school. In terms of comparison, there is basically no significant difference between the Japanese students' groups although JE are more positive about the content of school subject which they have studied (ANOVA.E: $F = 6.019, P < 0.05$).

According to figures 24 to 27, it is possible to say that the results show that most Japanese students regardless of their background are neither satisfied nor dissatisfied

with their academic education. As a matter of fact, the total mean percentage of frequency of answers “neither satisfied nor dissatisfied” from q. 2.1 to 2.4 is **45.8%**.

Apart from academic aspects, secondary school may provide another important role for pupils’ social and personal development. For example, having good relationships with school friends may help pupils to learn how to live in a community, social activities such as clubs may help pupils to find their hidden abilities, and pupils may learn how to work with other people through school events. Accordingly, the following questions 2.5 to 2.7 ask about students’ non-academic life in secondary school.

According to figures 28-30, Japanese students regardless of their background generally feel positive about social aspects in secondary school. Although there seems a small difference between JE and JO in the result of question 2.7 which is asking about school events, it is not proven by a statistical test. The mean percentage of students who answered “very satisfied” and “a bit satisfied” in questions 2.5 to 2.7 is **49.5%** in JE and **46.6%** in JO.

Above all, relationships with school friends is the most positive and important issue for students. Question 2.5 shows that almost **60%** of all Japanese students are generally satisfied with their relationships with school friends (see figure 28).

This is a very interesting finding when we observe a relationship between this result and problems within peer groups, such as bullying. For example, the government reports that the bullying rate has reached the highest level when the respondents have been at secondary school (Izukura, 1999b). According to the government’s statistics, all secondary schools in Japan officially reported at least one case of bullying at that time. This means, there is a high possibility that some of the respondents should know about a case of bullying in their school, or may be the victims and even be the bullies.

In terms of bullying, it is impossible to say from the above finding whether the respondents feel positive about such dreadful situations or hide their experience of being bullied. In

addition, there should be not only negative but also positive reasons, which will be described later, to say that relationships with friends are satisfactory.

In any case, we may be able to conclude that relationships with school friends are the main concern for the majority of the respondents, and are the most controversial issue in secondary school education.

On the whole, almost half of groups JE and JO are basically satisfied with the social aspects of secondary school life. In this respect, secondary school education provides a good opportunity for pupils' personal and social education.

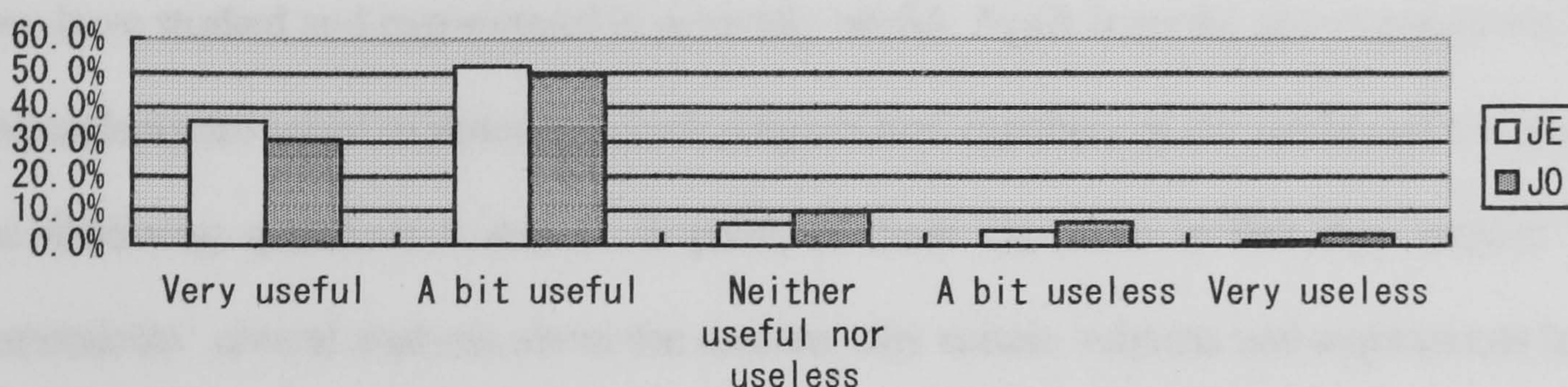
Questions 1 and 2 asked respondents about the degree of satisfaction with secondary school education. However, the above questions are limited in some respects. For example, there may be students who are not satisfied with their secondary school education in general but feel what they have learned is useful for their present life. In that case, school education might be successful in terms of usefulness. On the contrary, if there are other students who have a completely opposite opinion from the above students, schools may be effective for these students in terms of satisfaction.

Hence it is inevitable to ask if students feel what they have learned and experienced is "useful" for their present life. The following questions three to five are to investigate the secondary school's role in depth.

Question 3. How useful, in general, is what you studied and experienced as a pupil in secondary school, for your present life?

Figure 31. Results

	Very useful	A bit useful	Neither useful nor useless	A bit useless	Very useless
JE (100%)	36.1%	52.1%	6.3%	4.2%	1.3%
JO (100%)	30.6%	49.5%	9.9%	6.9%	3.1%
Altogether	33.8%	50.8%	7.7%	5.6%	2.1%



The above result shows that almost all of the Japanese students (the mean percentage is **84.2%**) feel positive about school effectiveness in terms of usefulness.

In terms of comparison, there are no significant differences by statistical analyses except for an outcome from ANOVA.C test, which explores a difference between male and female respondents (ANOVA.C: $F = 7.815$, $P < 0.05$). This means more females than males feel their studies and experiences in secondary school are useful.

In order to demonstrate what the difference is, the following figure and table will be helpful.

Figure 32. Comparison between sexes for question 3.

	<i>Very useful</i> (1)	<i>A bit useful</i> (2)	<i>Neither useful nor useless</i> (3)	<i>A bit useless</i> (4)	<i>Very useless</i> (5)
Male	24 (29.3%)	37 (45.1%)	11 (13.4%)	7 (8.5%)	3 (3.7%)
Female	42 (37.5%)	61 (54.5%)	4 (3.6%)	4 (3.6%)	1 (0.8%)

Table. 1. Descriptives

	<i>Male</i>	<i>Female</i>
Mean	2.12	1.75
Interquartile range	2	1

Although the difference seems not obvious, answers from female respondents are much more concentrated into “very” and “a bit useful” (see figure 32). This is also described by the mean answers from female respondents in table 2. Although it is not the main concern here, it might be interesting to note that more women than men feel that what they have studied and experienced is useful.

On the whole, the finding from question 3 reveals that most Japanese students feel what they have studied and experienced is generally useful. Apart from the above questions, the respondents are asked to describe which subjects and experiences are useful and useless in the following questions 4 and 5. A point of these questions is that they require the respondents’ critical analysis about the reasons why certain subjects and experiences have been useful or useless for them. Accordingly, findings from questions 4 and 5 will show students’ critical and objective views about secondary school education.

Question 4. Which subjects and experiences were the most useful for your present life and why?

It will be helpful to demonstrate with the following figure.

Figure 33. The five most useful subjects and experiences

	JE	JO	Altogether
1	Humanistic development through social activities (36)	Relationships with school friends (31)	Relationships with school friends (64)
2	Relationships with school friends (33)	Humanistic development through social activities (25)	Humanistic development through social activities (61)
3	Social studies (6)	English (3);	Social studies (6)
4	Teacher (3); Domestic science (3)	General knowledge (3); All I have learnt at school (3)	English (4); Teacher (4); All I have learnt at school (4)
5			Every academic subjects (3); Domestic science (3); General knowledge (3)

Analysis

The finding shows that **32.4%** of all Japanese students feel relationships with school friends are useful, and **30.9%** of them feel humanistic development through social activities is useful. These two issues occupy a remarkably high rate of all answers, and total **63.3%**.

There are several important results that we should note from these findings. First, relationships with school friends are apparently the most important issue in Japanese students' past and present life. A result of question 2.5, which has been previously examined, shows many respondents remember that they have been satisfied with relationships with school friends the most. Added to this, a result from question 4 demonstrates that students' experiences in relationships with school friends are the most useful issue in their present lives. The following comments from four respondents provide good illustrations.

“I had wonderful friends in secondary school. I still keep in touch with them, and sometimes talk about what I can't tell even my parents.”

In addition, humanistic development through social activities in secondary school is also one of the most important aspects for Japanese students through their lives. However, since there is another significant finding about social activities, detailed discussion on this issue will be described later.

Another significant finding from question 4 is that Japanese students rarely mention a particular academic subject as useful for their present life. Although some subjects occupy the third position in the above list, only a few people have mentioned particular subjects. Interestingly, some students have mentioned all subjects as useful, whereas others say there is nothing special which is useful for their present life.

What we notice here is that Japanese students seem to take the term “useful” in the abstract. Although it is not proven that there is a cultural influence in understanding of the word “useful”, this tendency in Japanese outcomes may make a good contrast with English ones as will be described later.

Added to the above findings, there are some interesting outcomes, which are worth showing here. First, there are a few remarks which mention teachers. In this case, Japanese students may feel that teachers are “helpful” rather than “useful” for their present life. The following remarks are noted by two students who undertake a teacher training course.

“A great subject teacher, who treated us as adults (not “kids”) and human beings, taught me difficulties and the importance of respecting each pupil’s personality. I decided to be a teacher because I was stimulated by this teacher.”

Another student wrote his opinion as follows:

“I came to like social studies because of the subject teacher.”

These opinions show that the relationship between teacher and student is highly important for pupils’ attitude towards subjects.

The second interesting outcome is that there are a few opinions which talk about the usefulness of studying mathematics, regardless of students background. Two students note about studying mathematics as follows.

“I didn’t like maths, but I think I have learnt how to be patient by solving incredibly difficult questions.”

There is another similar opinion as “I thought maths was completely useless. But it was

a good lesson to be persevering.”

These remarks show mathematics is a special subject for Japanese students in many ways. It will be also discussed in the following question 5.

Question 5. Which subject and experiences were the most useless for your present life and why?

Figure 34. The five of the most useless subjects and experiences

	JE	JO	Altogether
1	Mathematics (21)	Mathematics (17)	Mathematics (38)
2	All academic subjects (11)	Science (6)	All academic subjects (16)
3	Studying for entrance examinations to university (7)	All academic subjects (5)	Science (10)
4	Social activities (6)	Physical education (3); Social activities (3)	Social activities (9)
5	Science (4); English (4)	Teachers (2)	Studying for entrance examinations to university (8)

The most outstanding finding from question 5 is that **19.3%** of all Japanese students feel mathematics is useless. In the same way, science is the third useless subjects for Japanese respondents, regardless of their curriculum area. This result may show a tendency of Japanese students who have negative attitudes to mathematics and science. In fact, according to the survey conducted by IEA, the number of Japanese students who like Mathematics and Science is extremely low compared with other students in 38 countries, even though their examination results are very high. (Nihon Keizai Shinbun, 2000e).

Another reason for this result may arise from entrance examinations to Japanese university. In Japan, mathematics and science are often taken as a typical icon of Japanese high competitive academic education and entrance examinations.

The competitiveness of entrance examinations to Japanese university also relate to

another finding, which is in the sixth place of “studying for entrance examinations to university” (see figure 34). Although 27 students (13.7%) answer “nothing special”, which means everything which they have learnt and experienced in secondary school is useful in many ways, there are a few students who have strongly negative view about academic education. One student commented as follows, and it will explain it strikingly:

“All I have learnt in secondary school is no more than a tool for entrance examinations to university.”

It is fair to say that the above findings critically illustrate how seriously entrance examinations to university dominate Japanese secondary school education.

In addition, many people may think it regrettable that 8.0% of Japanese students feel all academic subjects are useless for their present life. For example, six students comment that “I have forgotten all what I have learnt at school.” Another three students remark as “What I have learnt in secondary school is totally useless.”

These findings demonstrate that Japanese students generally possess negative opinions especially about academic education in secondary school. Moreover, it will be also possible to say that outcomes from questions 4 and 5 are consistent with ones from questions 2 and 3, which reveal that students’ major concern is in social rather than academic aspects of school.

Before moving on to summarize the whole findings from questions 1 to 5, some interesting findings of question 4 and 5 should be noted here.

First of all, in figure 34, we will find the fourth place of the JE group is about social activities. In fact, the number of JO students who see social activities as the most useless experience in secondary education is also high and it reaches at the fifth place of the JO group’s ranking. This result contradicts the previous result in

question 4 (see figure 33).

We should examine these results in depth. First, according to question 2.6 (see figure 29), 43.1% of students are satisfied with social activities, and question 4 reveals that 35.6% of students also feel that social activities help their humanistic (personal) development and their experience through social activities is useful for their present life. The following comment typical of three respondents illustrate an effect of social activities.

“I learnt how to work together with friends, how to develop good relationships with friends, and how to preserve everything till the end, through social activity.”

Another two students comment that “I learnt to behave politely through social activities.”

On the other hand, three students explain why they feel negative about social activities as follows, making a good contrast with those who comment positively above.

“I have been forced to join a social club.”

“I was bullied by senior students at a social club.”

“Social activity was too strict.”

As far as we observe here, there are several reasons why some students do not like social activities. One reason may come from bullying, others may be because of strict rules in social activity. In any case, it is not too far from the truth that social activities are the most important as well as the most controversial issue for secondary school students.

Secondly, another interesting finding of students' comments for question 5 is about teachers. There are a few comments which are relevant to teachers like “I didn't like

English because of a subject teacher.” Another comment may also be interesting to note here “I didn’t like a teacher who was very lazy.”

Although it is hard to make assumptions about the way a student felt a teacher was lazy, it is obvious that pupils often observe teachers’ behavior critically.

As with question 4, it is observed that a relationship between teachers and students is very important in question 5. To sum up, it can be said that teachers’ ability or skills to deal with pupils effectively will be a key point for pupils’ motivations to learn.

A Summary of findings

Here a general analysis of questions 1 to 5 should be provided. Questions 1 to 5 are prepared to ask about the first key question: students’ views about their education in secondary school.

Generally speaking, Japanese students regardless of their background are satisfied with their education in secondary school and they feel it is useful for their present life.

What the Japanese students are satisfied with and feel useful is about social rather than academic aspects of secondary school. Above all, relationships with school friends are the most important concern, and are even useful for students’ present life, although there were some discussion about bullying in school at that time. Although it is not the main concern here, this finding reflects educational psychology which insists that social life may critically affect adolescents biologically and psychologically (Earl, 2000). In addition, Japanese students tend to value their humanistic development and social experience rather than any particular subjects.

On the other hand, what the Japanese students are not satisfied with nor feel useful is academic subjects, which are often regarded as tools of preparation to university. Most of all, they have a strongly negative view about mathematics and science, which are typical icons of Japanese competitive entrance examinations to university.

This finding may represent cultural aspects of Japanese people and Japanese school education.

Apart from the above main findings, there are a few interesting findings, such as opinions about teachers. The findings from questions 4 and 5 illustrate that a relationship between teachers and pupils is very significant for pupils' attitude towards study.

Finally, we should move on to consider further study. What we learn from these findings is that there are several disadvantages in present secondary school education in Japan. More consideration in academic subjects will be needed in a discussion of education for the global age. According to students' opinions, an entrance examination system should be also considered in depth. Moreover, social aspects of secondary schools should be valued more.

In further questions, students' views are sought about what the aims should be in secondary school education for the global age.

SECTION 1.3. VIEWS ABOUT EDUCATION FOR THE GLOBAL AGE

In this section, we consider findings from the Japanese students about education for the global age. It covers questions 6, 8, 10 and 12, and comprise the main body of the questionnaire.

As previously cited in chapter 4, section 1.4, the study covers four main aspects of education for the global age as follows:

- 1. the aims of education;**
- 2. curriculum content;**
- 3. teaching methods;**
- 4. assessment methods.**

Findings from each question which ask about the above aspects will be shown in the following small parts. Followed by these small parts, a summary of findings for the key question will be described. As for analysis methods, both qualitative and quantitative methods are used.

1.3.1. THE AIMS OF EDUCATION

Students' views about the aims of education for the global age are asked in question 6. According to the Delors' idea of the four pillars of education (Delors, 1996), seven aims are considered by the researcher and listed in a questionnaire. The respondents are asked the degree of emphasis of each aim that should be given in the global age. The degrees are categorised in five ranges from 'much more emphasis than now' to 'much less emphasis than now'. The following figures show findings from groups JE and JO.

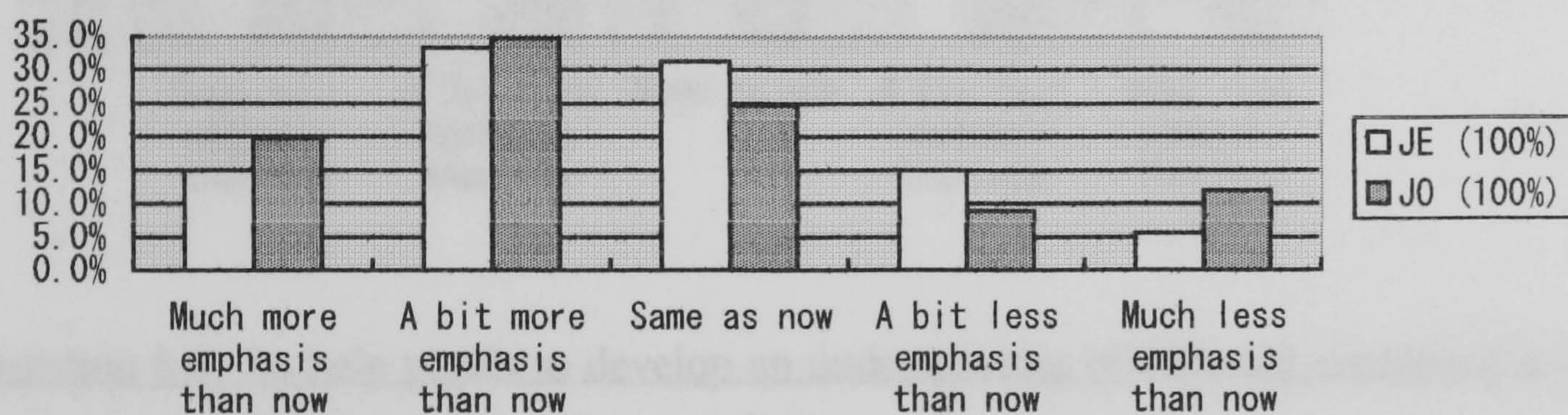
Question 6. How much emphasis do you feel should be given to each of the following aims for the secondary school curriculum in the global age?

Figures 35-41.

Question 6.1: To help pupils acquire the skills needed to get the job they want in adult life. (*Learning to do*)

Figure 35. Findings

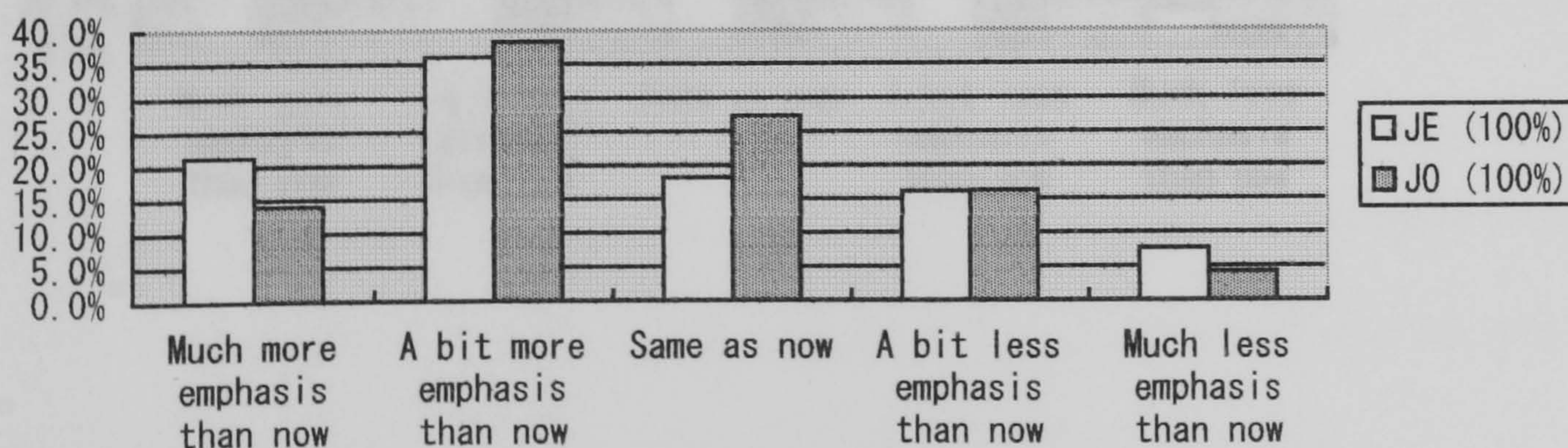
	Much more emphasis than now	A bit more emphasis than now	Same as now	A bit less emphasis than now	Much less emphasis than now
JE (100%)	15.0%	33.3%	31.2%	15.0%	5.5%
JO (100%)	19.8%	34.7%	24.7%	8.9%	11.9%
Altogether	17.4%	34.0%	27.9%	11.9%	8.8%



Question 6.2: To help pupils to acquire a broad general knowledge (*Learning to know*)

Figure 36. Findings

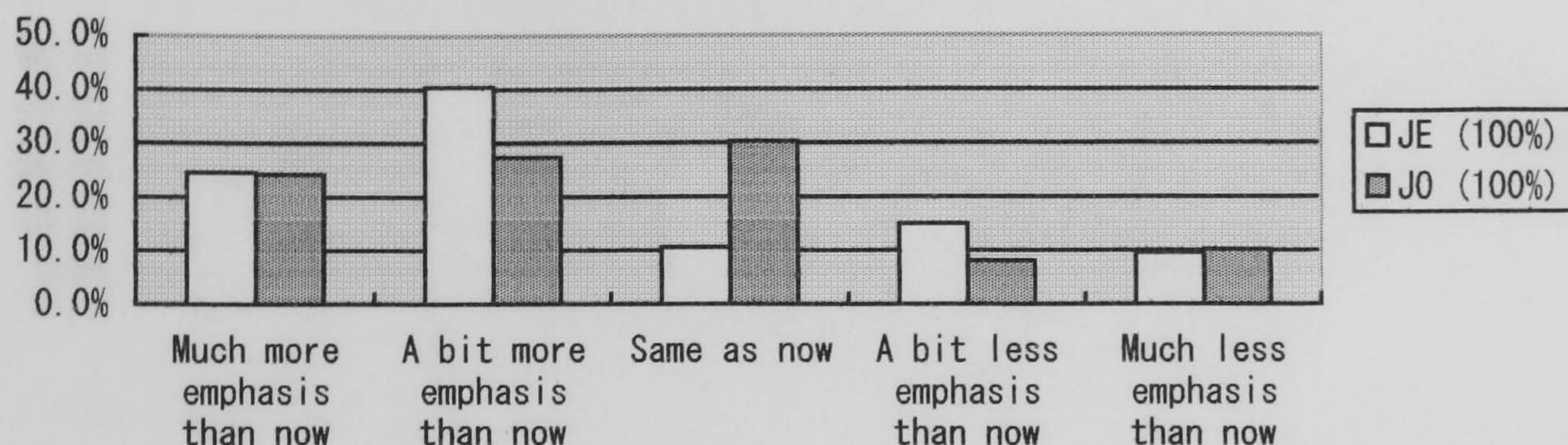
	Much more emphasis than now	A bit more emphasis than now	Same as now	A bit less emphasis than now	Much less emphasis than now
JE (100%)	21.3%	36.1%	18.2%	16.2%	8.2%
JO (100%)	14.1%	38.3%	27.2%	16.2%	4.2%
Altogether	17.7%	37.2%	22.7%	16.2%	6.2%



Question 6.3: To help pupils to develop an understanding of other countries and cultures. (*Learning to live together*)

Figure 37. Findings

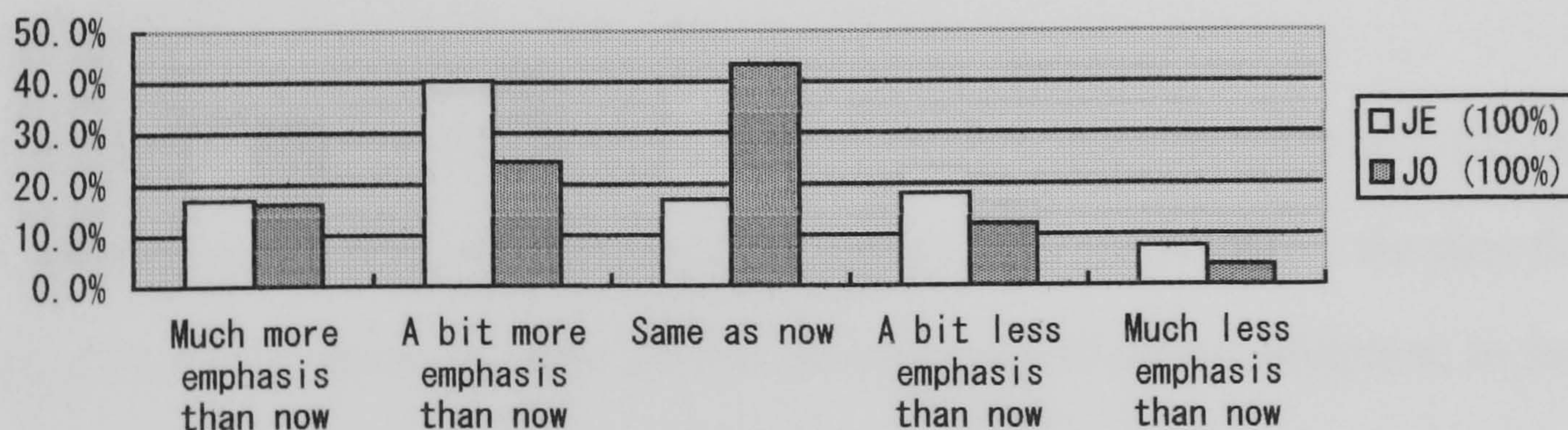
	Much more emphasis than now	A bit more emphasis than now	Same as now	A bit less emphasis than now	Much less emphasis than now
JE (100%)	24.5%	40.5%	10.6%	14.9%	9.6%
JO (100%)	24.5%	27.1%	30.2%	8.0%	10.2%
Altogether	24.5%	33.9%	21.4%	11.5%	8.9%



Question 6.4: To help pupils to develop an understanding of different communities in their own country. (*Learning to live together*)

Figure 38. Findings

	Much more emphasis than now	A bit more emphasis than now	Same as now	A bit less emphasis than now	Much less emphasis than now
JE (100%)	17.0%	40.4%	17.0%	18.0%	7.6%
JO (100%)	16.2%	24.3%	43.4%	12.1%	4.0%
Altogether	16.6%	32.4%	30.2%	15.1%	5.7%

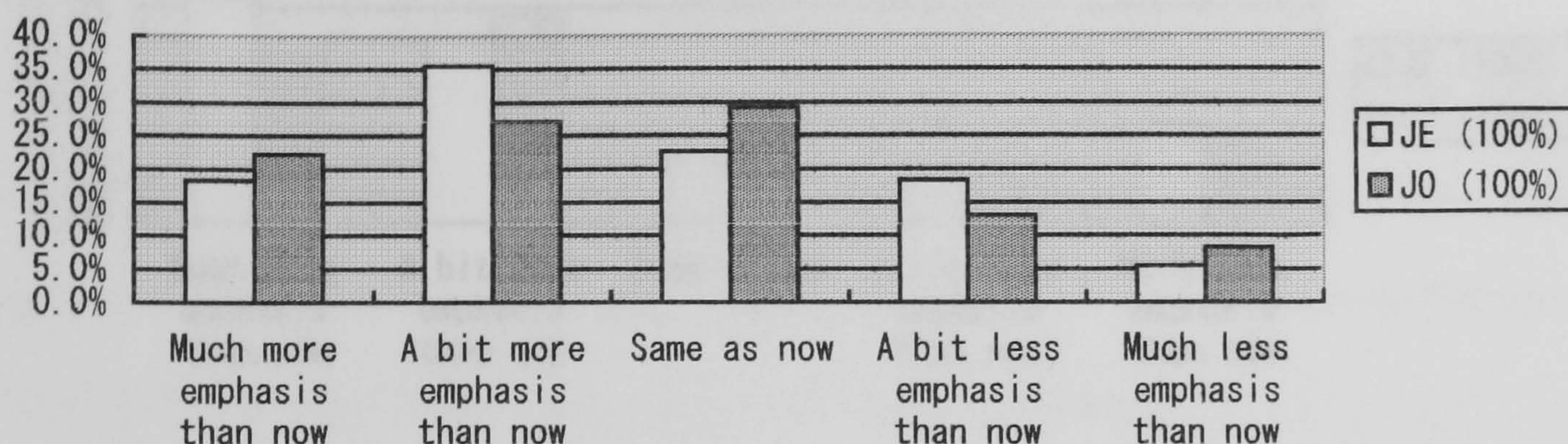


Question 6.5: To help pupils to learn to develop a sense of being a citizen of the world.
(Learning to live together)

Figure 39. Findings

Figure 39. Findings

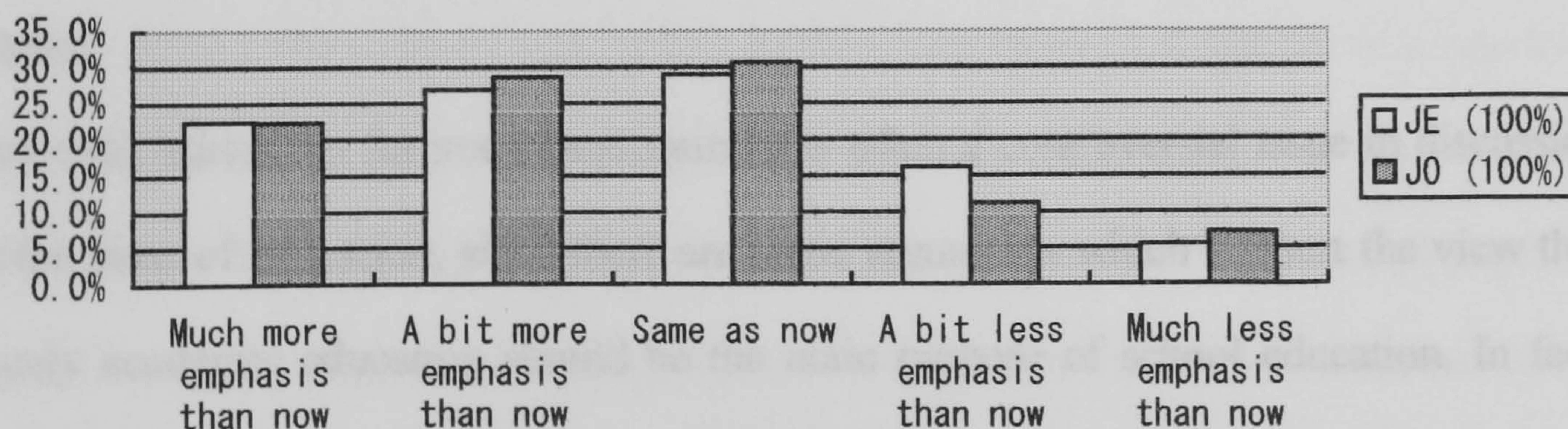
	Much more emphasis than now	A bit more emphasis than now	Same as now	A bit less emphasis than now	Much less emphasis than now
JE (100%)	18.2%	35.5%	22.6%	18.3%	5.4%
JO (100%)	22.2%	27.2%	29.3%	13.1%	8.2%
Altogether	20.2%	31.4%	25.9%	15.7%	6.8%



Question 6.6: To help pupils to learn how to deal with problem situations. (Learning to be)

Figure 40. Findings

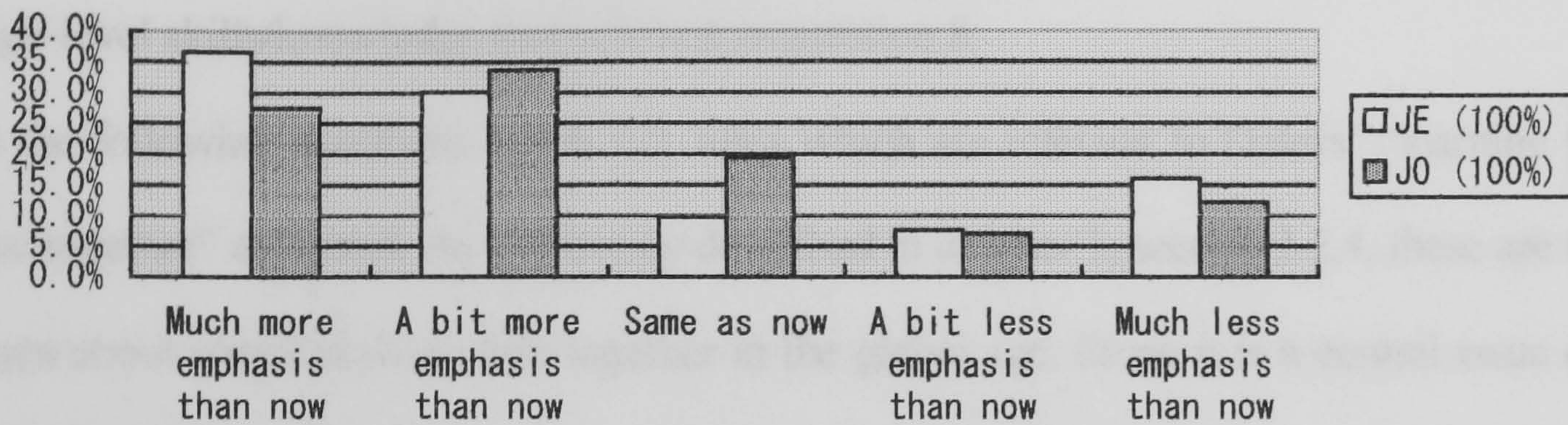
	Much more emphasis than now	A bit more emphasis than now	Same as now	A bit less emphasis than now	Much less emphasis than now
JE (100%)	22.5%	26.9%	29.0%	16.1%	5.5%
JO (100%)	22.4%	28.6%	30.6%	11.2%	7.2%
Altogether	22.5%	27.8%	29.8%	13.7%	6.2%



Question 6.7: To help pupils to exercise greater autonomy. (*Learning to be*)

Figure 41. Findings

	Much more emphasis than now	A bit more emphasis than now	Same as now	A bit less emphasis than now	Much less emphasis than now
JE (100%)	36.6%	30.1%	9.7%	7.6%	16.0%
JO (100%)	27.6%	33.7%	19.4%	7.1%	12.2%
Altogether	32.1%	31.9%	14.6%	7.4%	14.0%



Findings & Analysis

Question 6.1 asks about “learning to do”, which is one of Delors’ four pillars of education and concerns the vocational training purpose (see chapter 2, section 2.2.2).

As a result of a statistical analysis, there are no significant differences in answers from the Japanese respondents.

Generally speaking, figure 35 indicates that **51.4%** of all Japanese students basically feel the aim, which includes vocational training purpose, should be emphasized to a degree.

However, education for vocational training is often a controversial issue in discussion of the aims of education, since there are some arguments which support the view that purely academic education should be the main purpose of school education. In fact, some Japanese students made comments which show they object to the emphasis on vocational training in secondary school education. More detailed information will be described later.

Question 6.2 ask about “learning to know”, which is to master knowledge as a basic constituent for many purposes (see chapter 2, section 2.2.1). Although knowledge-based learning causes assessment-driven education and a highly competitive

educational hierarchy in Japan, **53.7%** of all Japanese respondents answer that this aim should be emphasized (see figure 36).

One possible reason is that this aim is limited only to ‘broad general knowledge’ which does not include a high-level knowledge of each academic subject which can be found in present Japanese education. In fact, many Japanese students have not emphasized high-level skills/knowledge that is asked in question 8.

In the following questions 6.3 to 6.5, aims which are relevant to Delors’ “learning to live together” are listed. As previously described in chapter 2, section 2.2.4, these are to learn about social skills to live together in the global age. Since it is a central issue of education for the global age, 3 related aims are listed as follows.

On the whole, **51.5%** of Japanese students agreed to emphasise three aims listed questions 6.3 to 6.5 (see figure 37 to 39). In addition, statistical analysis verifies that there are no significant differences among the answers.

In questions 6.6 and 6.7, the aims which are relevant to one of Delor’s four pillars of ‘learning to be’ will be asked. ‘Learning to be’ is concerned with the humanistic and whole person education (see chapter 2, section 2.2.3).

According to figures 40 and 41, Japanese students, regardless of their background, feel the above aims should be emphasized more than now. Above all, **64.0%** of all students agree that there should be emphasise on the aim asked about in question 6.7. Interestingly, the percentage of students who answered that aim, which helps pupils to exercise greater autonomy, should be much less emphasized than now is also as high as **13.7%** (see figure 41). This result may reflect the current Japanese educational movement which encourages ‘*kokoro no kyoiku*’: the empowerment of greater autonomy (see chapter 1, section 1.3), and how it is a controversial issue.

A Brief Summary of Findings from Question 5

Before moving to the next question, we should generalise the findings from question 6.

On the whole, **54.2%** of all Japanese students feel the aims in the above should be emphasized more than now. Although there are significant differences between groups JE and JO in terms of statistical analysis, the above figures show students in JO group often answer “same as now” more than students in group JE.

SECTION 1.3.2 CURRICULUM CONTENT

Question 8 asks students’ views about curriculum contents of education for the global age. In the same way as question 6, curriculum contents that are basically subjected to Delors’ idea are listed and the degree of emphasis is asked in each category. As previously explained in chapter 4, section 2.2.2, there are 11 curriculum contents listed.

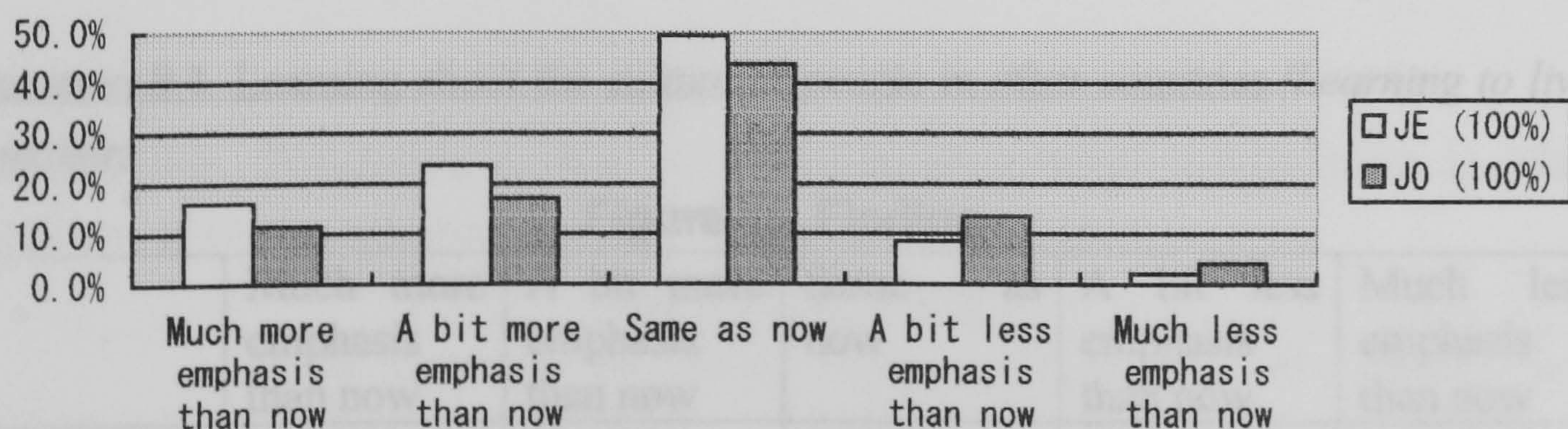
Question 8. How much emphasis do you feel should be given to the following areas of the school curriculum in the global age?

Figures 42-54

Question 8.1. Basic skills (literacy, numeracy) (Learning to know)

Figure 42. Findings

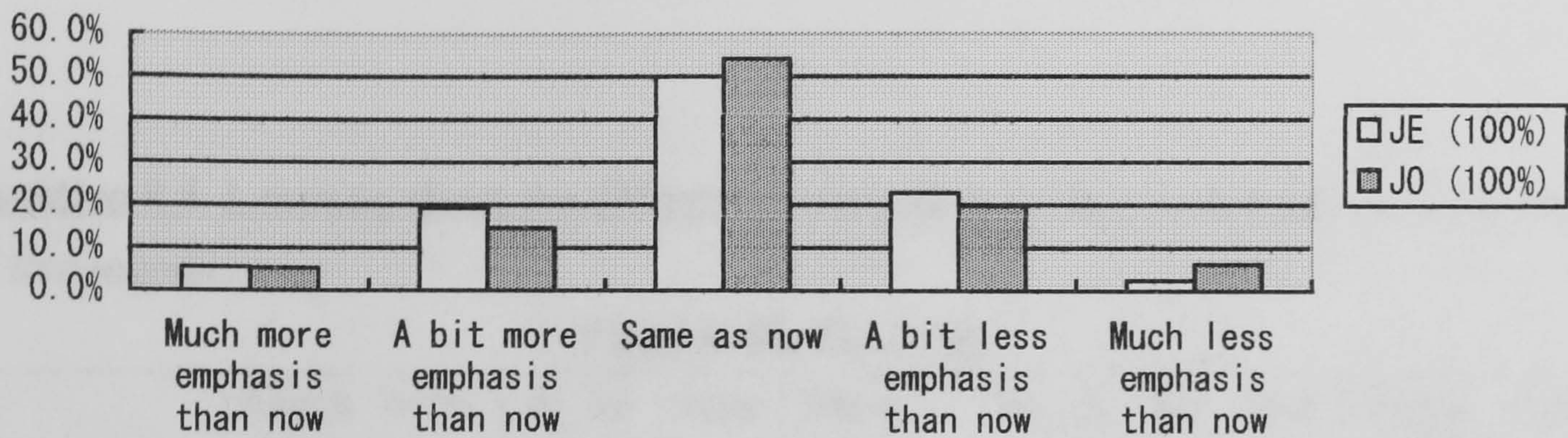
	Much more emphasis than now	A bit more emphasis than now	Same as now	A bit less emphasis than now	Much less emphasis than now
JE (100%)	16.1%	23.7%	49.5%	8.6%	2.1%
JO (100%)	11.5%	17.1%	43.8%	13.5%	4.1%
Altogether	13.8%	25.4%	46.6%	11.1%	3.1%



Question 8.2. High-level skills / knowledge (*Learning to know*)

Figure 43. Findings

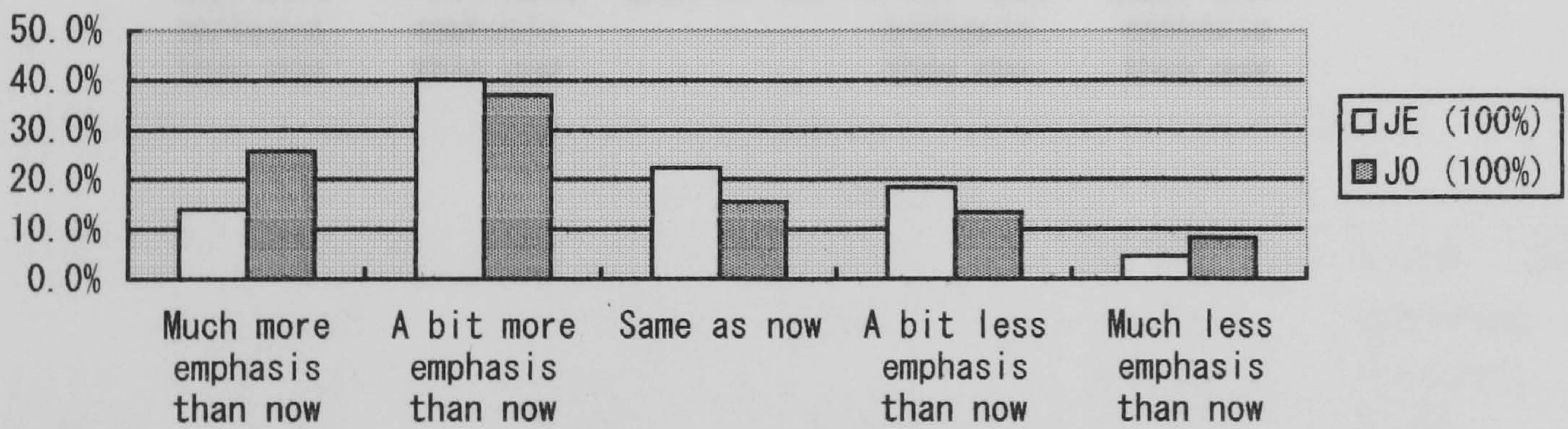
	Much more emphasis than now	A bit more emphasis than now	Same as now	A bit less emphasis than now	Much less emphasis than now
JE (100%)	5.4%	19.4%	50.0%	22.8%	2.4%
JO (100%)	5.2%	14.6%	54.2%	19.8%	6.2%
Altogether	5.3%	17.0%	52.1%	21.3%	4.3%



Question 8.3. Foreign languages (*Learning to know*)

Figure 44. Finding

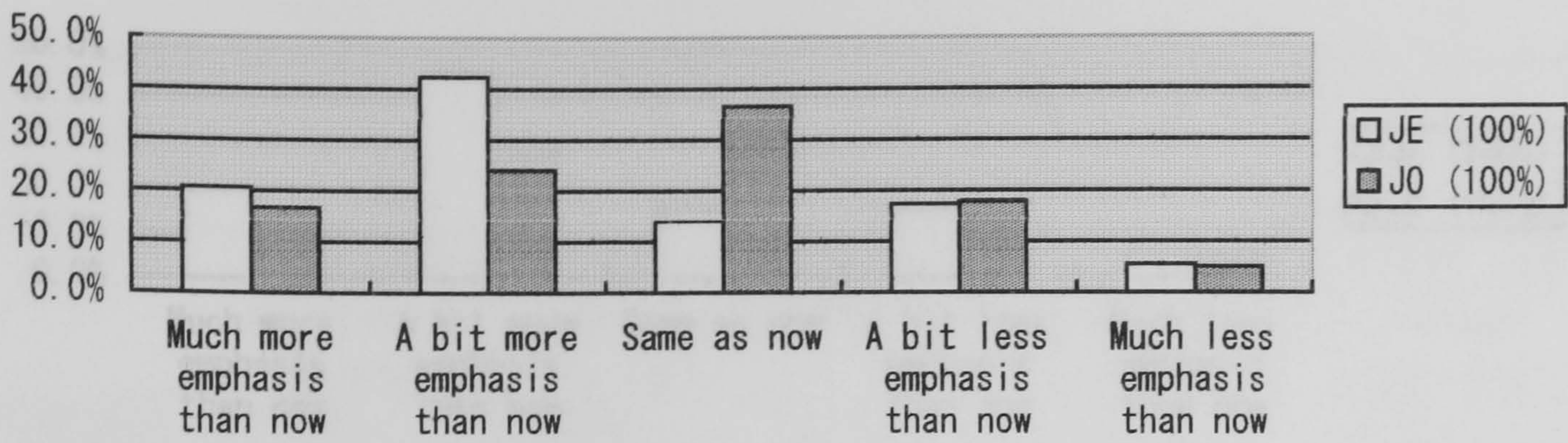
	Much more emphasis than now	A bit more emphasis than now	Same as now	A bit less emphasis than now	Much less emphasis than now
JE (100%)	14.4%	40.1%	22.5%	18.4%	4.6%
JO (100%)	25.8%	37.1%	15.5%	13.4%	8.2%
Altogether	20.1%	38.6%	19.0%	15.9%	6.4%



Question 8.4. Learning about the culture of people in other countries. (*Learning to live together*)

Figure 45. Finding

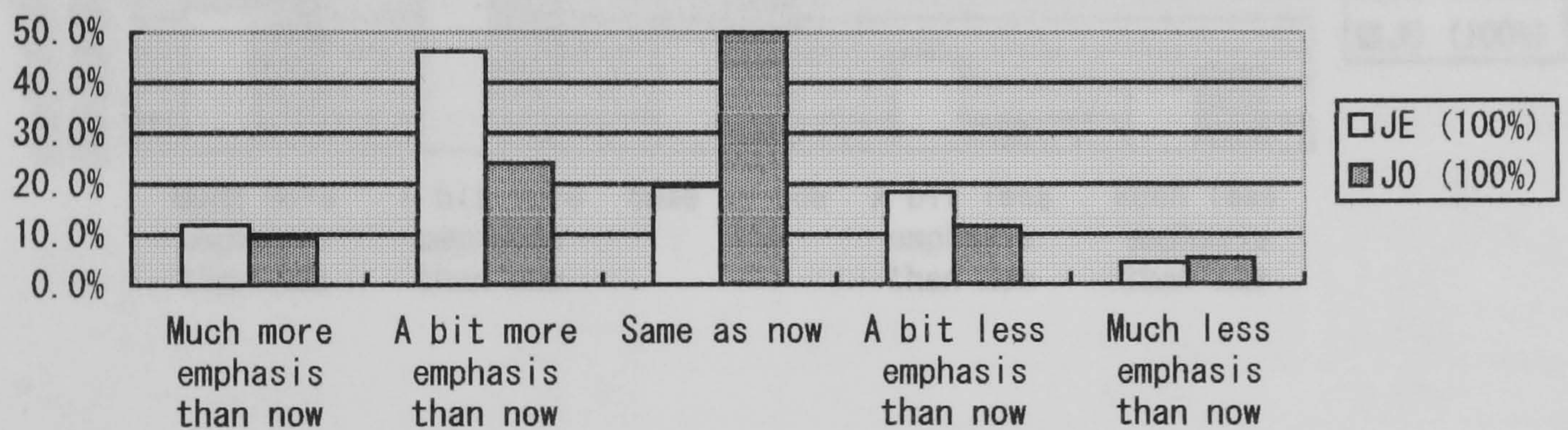
	Much more emphasis than now	A bit more emphasis than now	Same as now	A bit less emphasis than now	Much less emphasis than now
JE (100%)	20.7%	42.4%	14.1%	17.4%	5.4%
JO (100%)	16.7%	24.0%	36.5%	17.8%	5.0%
Altogether	18.7%	32.9%	25.5%	17.6%	5.3%



Question 8.5. Learning about the different communities in their own country. (Learning to live together)

Figure 46. Finding

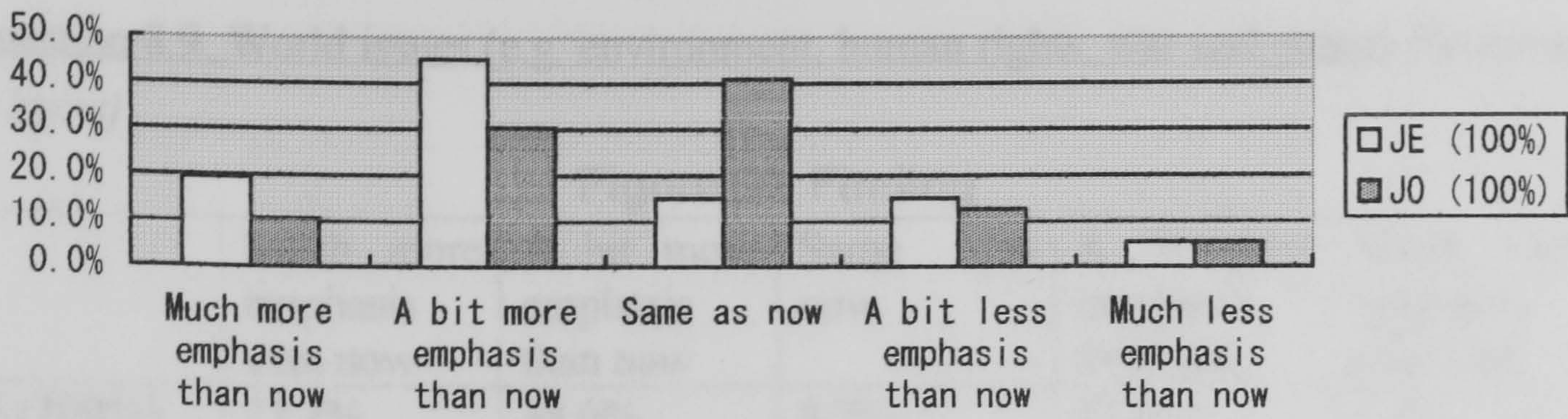
	Much more emphasis than now	A bit more emphasis than now	Same as now	A bit less emphasis than now	Much less emphasis than now
JE (100%)	11.8%	46.2%	19.4%	18.3%	4.3%
JO (100%)	9.3%	24.0%	50.0%	11.5%	5.2%
Altogether	10.6%	35.4%	34.9%	14.8%	4.3%



Question 8.6. Developing a sense of responsibility towards people living in other countries. (Learning to live together)

Figure 47. Finding

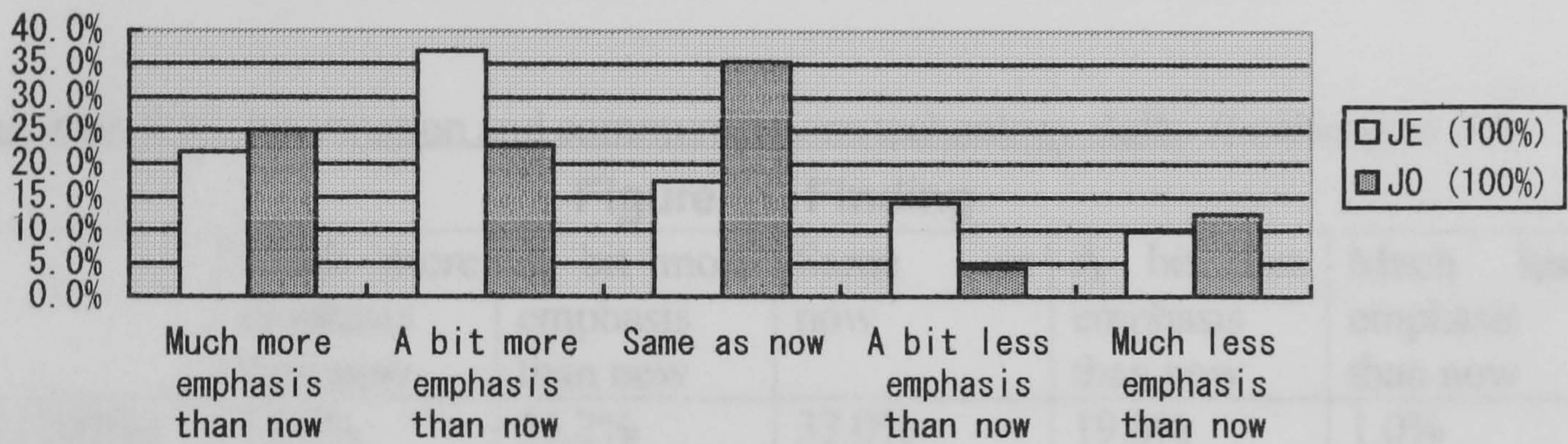
	Much more emphasis than now	A bit more emphasis than now	Same as now	A bit less emphasis than now	Much less emphasis than now
JE (100%)	19.4%	45.2%	15.0%	15.0%	5.4%
JO (100%)	10.5%	30.5%	41.0%	12.6%	5.4%
Altogether	14.9%	37.8%	28.2%	13.8%	5.3%



Question 8.7. Developing a sense of individual empowerment. (*Learning to be*)

Figure 48. Finding

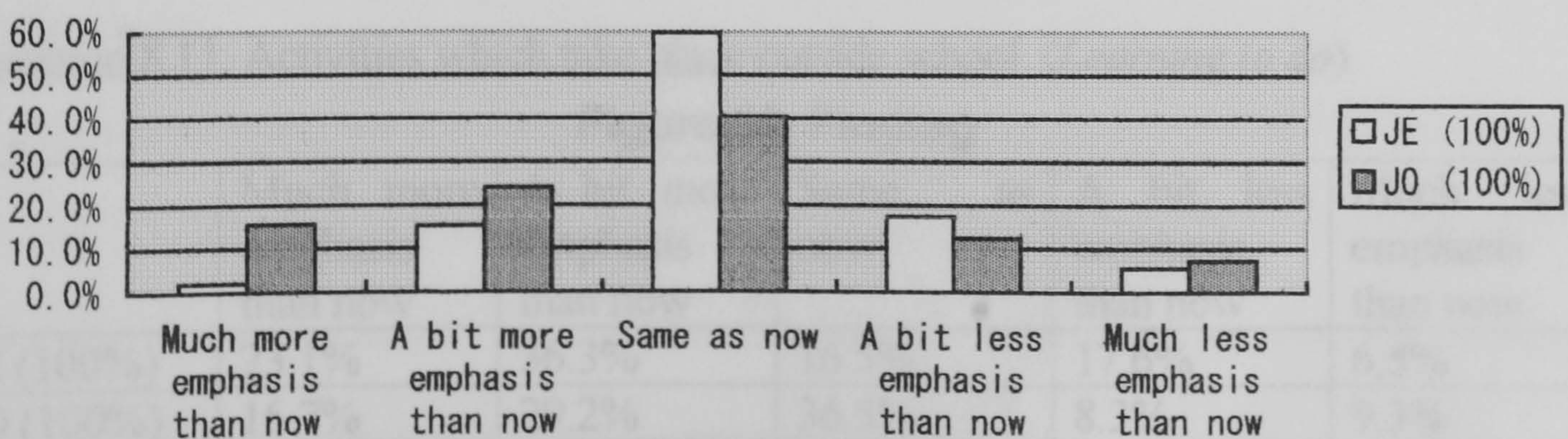
	Much more emphasis than now	A bit more emphasis than now	Same as now	A bit less emphasis than now	Much less emphasis than now
JE (100%)	21.7%	37.0%	17.4%	14.1%	9.8%
JO (100%)	25.0%	22.9%	35.4%	4.2%	12.5%
Altogether	23.4%	29.8%	26.6%	9.0%	11.2%



Question 8.8. Visiting and living in other countries. (*Learning to live together*)

Figure 49. Finding

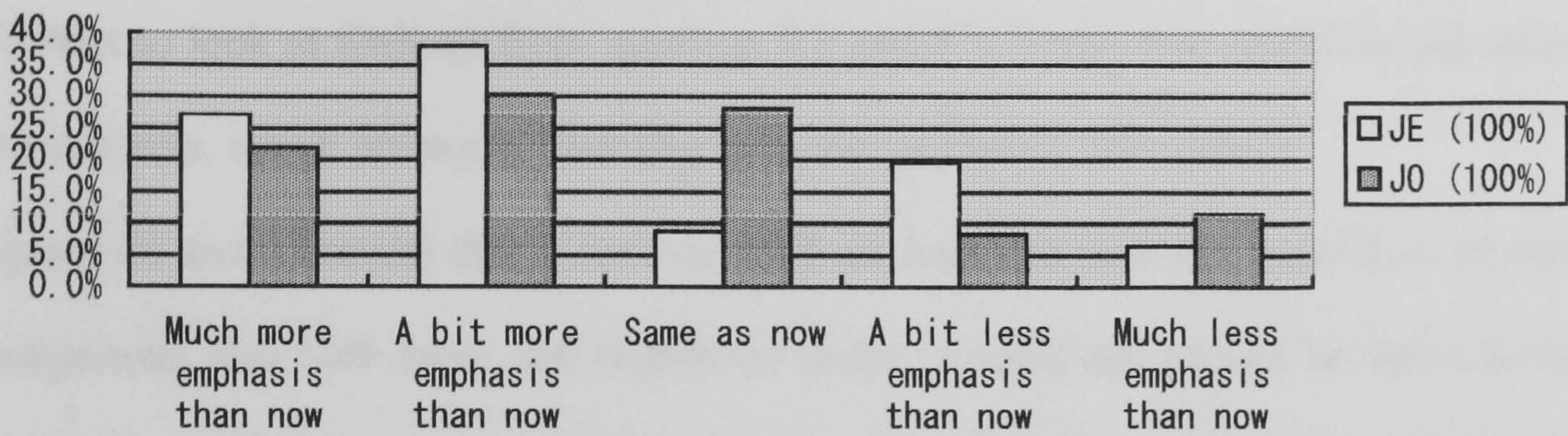
	Much more emphasis than now	A bit more emphasis than now	Same as now	A bit less emphasis than now	Much less emphasis than now
JE (100%)	2.1%	15.2%	59.8%	17.4%	5.5%
JO (100%)	15.6%	24.0%	40.6%	12.5%	7.3%
Altogether	9.0%	19.7%	50.0%	14.9%	6.4%



Question 8.9. World issues (e.g. environment, human rights, war and peace) (*Learning to know*)

Figure 50. Finding

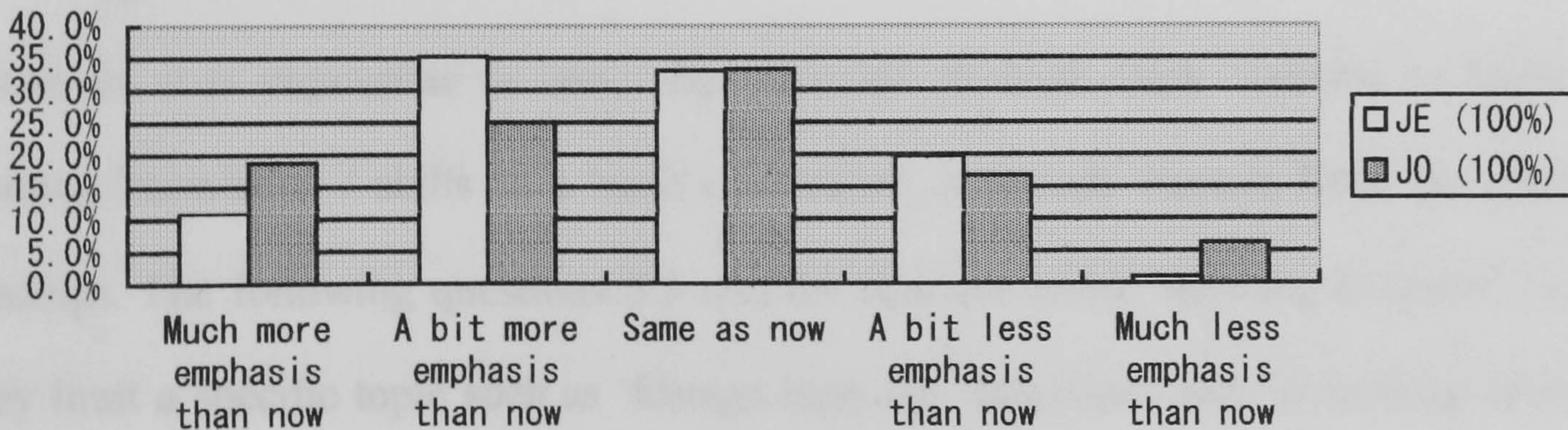
	Much more emphasis than now	A bit more emphasis than now	Same as now	as	A bit less emphasis than now	Much less emphasis than now
JE (100%)	27.2%	38.0%	8.7%		19.6%	6.5%
JO (100%)	21.9%	30.2%	28.1%		8.3%	11.5%
Altogether	24.5%	34.0%	18.6%		13.8%	9.1%



Question 8.10. Information and communications technology skills. (*Learning to do*)

Figure 51. Finding

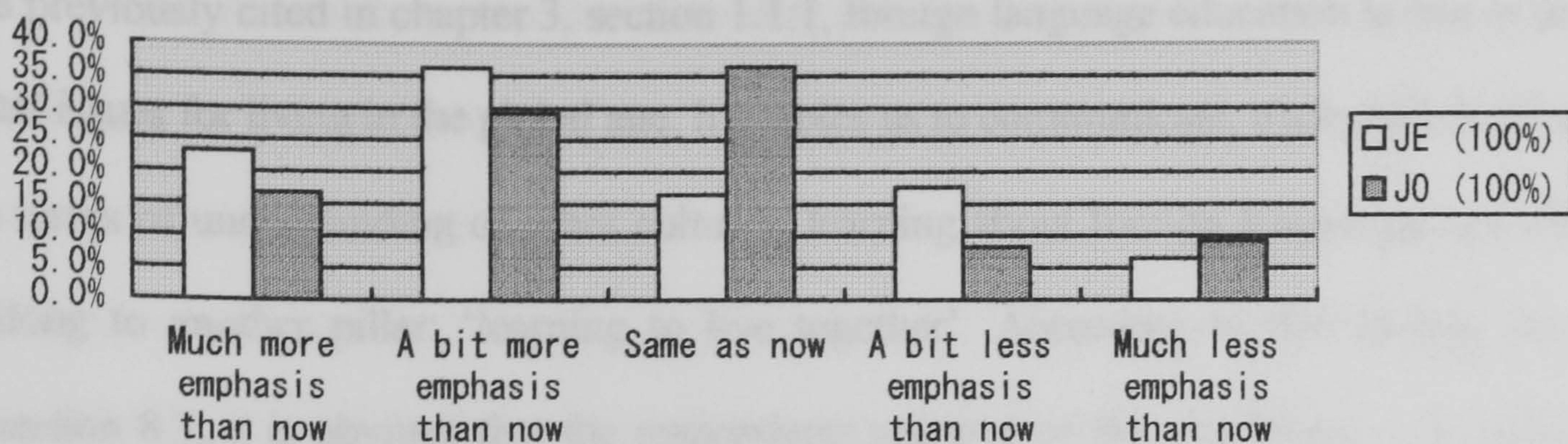
	Much more emphasis than now	A bit more emphasis than now	Same as now	as	A bit less emphasis than now	Much less emphasis than now
JE (100%)	11.0%	35.2%	33.0%		19.8%	1.0%
JO (100%)	18.8%	25.0%	33.3%		16.7%	6.2%
Altogether	14.9%	29.9%	33.2%		18.2%	3.8%



Question 8.11. Activities which take place outside school. (*Learning to do*)

Figure 52. Finding

	Much more emphasis than now	A bit more emphasis than now	Same as now	as	A bit less emphasis than now	Much less emphasis than now
JE (100%)	23.1%	36.3%	16.5%		17.6%	6.5%
JO (100%)	16.7%	29.2%	36.5%		8.3%	9.3%
Altogether	19.8%	32.6%	26.7%		12.8%	8.1%



Findings & Analysis

We start to look at findings from question 8.1 and 8.2. These two questions ask about core subjects, which belong to ‘learning to know’ in Delors’ four pillars.

Figures 42 and 43 reveal that more than **50%** of Japanese students, regardless of their background, feel both basic and high-level skills / knowledge should be same as the current secondary school curriculum. In the case of question 8.2, there seem more students who feel negatively about developing high-level skills / knowledge (see figure 43). In fact, **25.6%** of all students feel high-level skills / knowledge should be less emphasized than now. To sum up, the findings from the above question 8.1 and 8.2 indicate that Japanese students feel the current knowledge-based education is enough, or even that it should be less emphasized than now in the case of high-level skills / knowledge.

However, it is impossible to verify that Japanese students think ‘learning to know’, gaining knowledge / skills as a basic constituent, is already enough from the above findings. The following questions 8.3 and 8.9 also ask about ‘learning to know’, but they limit a specific topic such as ‘foreign language education’ and ‘knowledge about world issues’.

Figure 44, showing finding from question 8.3, forms a very different style from figures 42 and 43, although all of them belong to the same category of ‘learning to know’ which is based on Delors’ idea. In fact, **58.7%** of all Japanese students feel foreign language education should be emphasized more than now.

As previously cited in chapter 3, section 1.1.1, foreign language education is one of the vital issues for living in the global age. It enables us to communicate, trade, and develop. In terms of understanding of other cultures, learning about foreign languages can also belong to another pillar: 'learning to live together'. According to the finding from question 8.3, it is obvious that the respondents approve of the significance of foreign language education.

Apart from question 8.3, question 8.9 also asks about 'learning to know', and this is about acquiring knowledge of "world issues". As already described in chapter 2, section 1.1, there are several world-wide issues which should be addressed in a global age. Learning about issues such as environment issues will be essential for human beings in the global age, and this type of learning should belong to a category of 'learning to know'. Since it may be difficult for the respondents to understand the term "world issues" precisely, question 8.9 provides some key words with a question such as "environment", "human rights" and "war and peace".

According to figure 50, there seems a difference in answers between groups JE and JO, but it is not verified by a statistical test. Nevertheless, it seems that more students from group JE than ones from group JO feel curriculum content which includes world issues should be emphasized more than now. In fact, 65.2% of students from group JE agree there should be more emphasis on a curriculum content about world issues, and it reaches the highest number from group JE through answers in question 8. However, the number of students from JO who agree there should be more emphasis on learning about world issues is also as high as 52.1%. Altogether, **58.5%** of all Japanese students feel a curriculum content about world issues should be emphasized than now.

Before moving to the next questions, we should summarise the above findings from questions 8.1 to 8.3 and 8.9, which ask about 'learning to know'. According to findings from question 8.1 and 8.2, many Japanese students feel curriculum about both basic and high-level skills / knowledge should be the same as now. However, Japanese students

seem to have a view that curriculum contents, which are more relevant to global issues, which will be important for living in the global age. Accordingly, they feel foreign language education and a curriculum which contains world issues should be more emphasized than now.

The following questions 8.4 to 8.6 and 8.8 ask about another important topic in the global age, which is about 'learning to live together'. This type of learning refers to developing skills to live together in the world, and to understand each other. Although the aims of 'learning to live together' can be found in many types of education, such as community education and citizenship education, the questionnaire focuses on learning about cultural issues in the school curriculum.

According to figures 45 to 47, students from group JE rather than students from group JO seem more positive in emphasising learning about the culture of other countries and the different communities in Japan. Nevertheless, a significant difference between the two groups is not found by a statistical test.

In total, **52.0%** of all Japanese students feel that learning about the other cultures in other countries should be emphasized, and **45.6%** of Japanese answer that learning about the different communities in Japan should be emphasized. In addition, **52.7%** of all students think that developing a sense of responsibility towards people living in other countries should be emphasized.

Before moving to the following question, there is a social issue that we should note for the findings from question 8.5, which asks about learning in different communities in one country. In Britain, there are several communities which are different from the native English ones, which will be described later. However, Japan seems not to comprise multinational and multiethnic societies, compared with England. In this respect, we may assume that Japanese people tend to ignore the different communities in Japan, although there are a few small different communities.

For instance, it might be hard to find the different communities in Japan, unless we go

to a specific area such as Hokkaido, where the Ainu group exists; Yokohama, where small Chinese communities exist; and some west parts of Japan where we find a few minority groups. In fact, the total ethnic minority population is only 0.8% of the total population in Japan, as previously explained in chapter 1, section 1. It is reasonable to say that finding the different communities is very difficult throughout Japan. In addition, there might be few Japanese young people who know about the different communities in their own country, although this is a view of the researcher.

If we stand by this point of view, it is rather natural to find that 50% of students from JO who have not studied about educational and social issues are neither positive nor negative about learning about different communities in Japan (see figure 46). In this respect, not only multicultural but also intercultural education will be needed to let Japanese pupils be aware of the different communities in Japan.

Apart from the above two questions, question 8.8 ask about 'learning to live together' in another way. Now we should look at the finding from question 8.8.

According to figure 49, approximately 60% of students from JE think that a curriculum which includes visiting and living in other countries should be the same as now. Otherwise, students from JE are rather negative in emphasising it. On the contrary, students from JO are more positive in emphasising it. In fact, there is a significant difference between data from groups JE and JO (ANOVA.F = 6.82, P<0.05).

Generally speaking, students who undertake teacher training courses (JE) feel negative about the school curriculum including visiting and living in other countries. On the contrary, other students (JO) feel positive about an emphasis on that in the school curriculum.

There is one possible reason for this finding, and to explain the reason, we need to start by looking at Japanese school excursions. A school excursion, which lets pupils visit some famous places within Japan such as Kyoto and Tokyo, is a part of the school curriculum in Japan. Currently, school excursions tend to visit not only within Japan but

also other countries.

For example, many Japanese people visit foreign countries for sightseeing as noted in chapter 2, section 1.2.3. This tendency applies to school trips as well, and it is now getting very popular to visit foreign countries. In fact, the number of secondary schools which have a programme for visiting foreign countries is increasing yearly. There were 800 schools which visited foreign countries in 1997 (Izukura, 1999c). In addition, there are some secondary schools which have an exchange programme for pupils to stay in other countries for a month or more. In any cases, head teachers of those schools imply that visiting / living in other countries is very important for developing pupils' global point of views, encouraging pupils' understanding of other cultures and renewing pupils' understanding of their own culture. To sum up, a school curriculum which contains visiting and living in other countries is implemented as school excursions in many secondary schools in Japan.

Meanwhile, there are several criticisms about school excursions. Basically, the aims of the school excursion are to develop pupils' skills in having good relationships with people; to help pupils to learn social morality through group activity, and to provide an opportunity for pupils to learn about local culture (Izukura, 1999c). Strictly speaking, school excursions have another purpose, providing rather poorer pupils with an opportunity to visit places, especially when Japan had experienced hard time in terms of economic after the world war two.

However, in 1997, the most popular place to visit for pupils was the Tokyo Disneyland. What is more, some schools chose Hawaii as a destination for the school excursion. Many people may find that it is very hard to see the Tokyo Disneyland and Hawaii as appropriate places for a school excursion. In the end, it is natural to find some negative views about school excursion, which has lost its educational aims and shifted to sightseeing.

Although question 8.8 does not regard the means of visiting and living in other

countries as school excursions, in most cases it will be school excursions, which cause some controversial issues in Japan.

Accordingly, the finding from question 8.8 may suggest that students from group JE are more concerned with educational effectiveness of the school curriculum about visiting and living in other countries, which is currently implemented as school excursions in Japan. In other ways, the finding reveals that there might be some issues which should be considered in depth in the current school curriculum, especially about school excursions.

In conclusion, questions 8.4, 8.5 and 8.8 ask about students' views of 'learning to live together'. According to the findings, most Japanese students feel that learning about the other cultures in other countries should be emphasized than now. However, students are not so keen about learning about the different communities, because of Japanese cultural issues. In this respect, we may have to consider intercultural issues. Moreover, there was a different opinion between groups JE and JO about a school curriculum which includes visiting and living in other countries, which is often implemented as school excursions in Japan. The finding suggests we should be more careful about the real effectiveness of school excursions in the case of Japan.

Apart from 'learning to live together', question 8.7 asks about 'learning to be'. This type of learning is relevant to humanistic education, which focuses on pupils' whole personal development.

According to figure 48, more students in JE than in JO are positive in emphasising a developing a sense of individual empowerment. In total, approximately 50% of all Japanese students agree in emphasising it. This finding links together with findings from questions 6.6 and 6.7, which also ask about 'learning to be'.

Lastly, questions 8.10 and 8.11 ask about the school curriculum which contains 'learning to do': a vocational training. Question 8.10 is about information and communications technology skills, which will be one of the most useful skills to get a

better job in the global age. Question 8.11 is about activities which take place outside school. This type of activity will help pupils to acquire skills which will be needed in their future through contacting and working with people outside school.

In total, **44.8%** of all Japanese students feel information and communications technology skills should be emphasized. In addition, **52.4%** of all students answer that activities taken outside school should be emphasized than now (see figure 51 and 52).

A Brief Summary of Findings from question 8

In conclusion, over **50%** of all Japanese students are positive in emphasising most school curriculum contents asked in question 8 as follows:

Figure 53. Curriculum content to be emphasized by more than 50% of Japanese students

	<i>JE</i>	<i>JO</i>	<i>Altogether</i>
1	Q.8.9 (World issues.65.2%)	Q.8.3 (Foreign languages. 62.9%)	Q.8.3 (Foreign languages. 58.7%)
2	Q.8.6 (Developing a sense of responsibility towards people living in other countries. 64.6%)	Q.8.9 (World issues. 52.1%)	Q.8.9 (World issues. 58.5%)
3	Q.8.4 (Learning about the culture of people in other countries. 63.1%)		Q.8.7 Developing a sense of individual empowerment. 53.2%)
4	Q.8.11 (Activities which take place outside school. 59.4%)		Q.8.6 (Developing a sense of responsibility towards people living in other countries. 52.7%)
5	Q.8.7 (Developing a sense of individual empowerment. 58.7%)		Q.8.11 (Activities which take place outside school. 52.4%)
6	Q.8.5 (Learning about the different communities in their own country. 58.0%)		Q.8.4 (Learning about the culture of people in other countries. 51.6%)
7	Q.8.3 (Foreign languages. 54.5%)		

Above all, learning about the other culture in other countries is the most frequently

noted by students to be emphasized.

Meanwhile, we notice that more students in JE than students in JO are positive in emphasising some curriculum contents asked in question 8. It appears to show that students undertaking teacher training courses are more concerned with curriculum contents which are relevant to Delors' four pillars.

On the other hand, most Japanese students are neither positive nor negative in emphasising school contents about both basic and high-level skills/knowledge, and visiting and living in other countries, which are often implemented by school excursions. According to students' views, these curriculum contents are already implemented enough in secondary schools. In fact, more than 25% of students answer that high-level skills / knowledge should be less emphasized than now. This may reflect the current hard academic study in secondary school in Japan.

Generally speaking, curriculum contents questions asked in question 8, except in the above three points show basic in agreement that there should be more emphasis in secondary school education in the global age.

SECTION 1.3.3. TEACHING METHODS

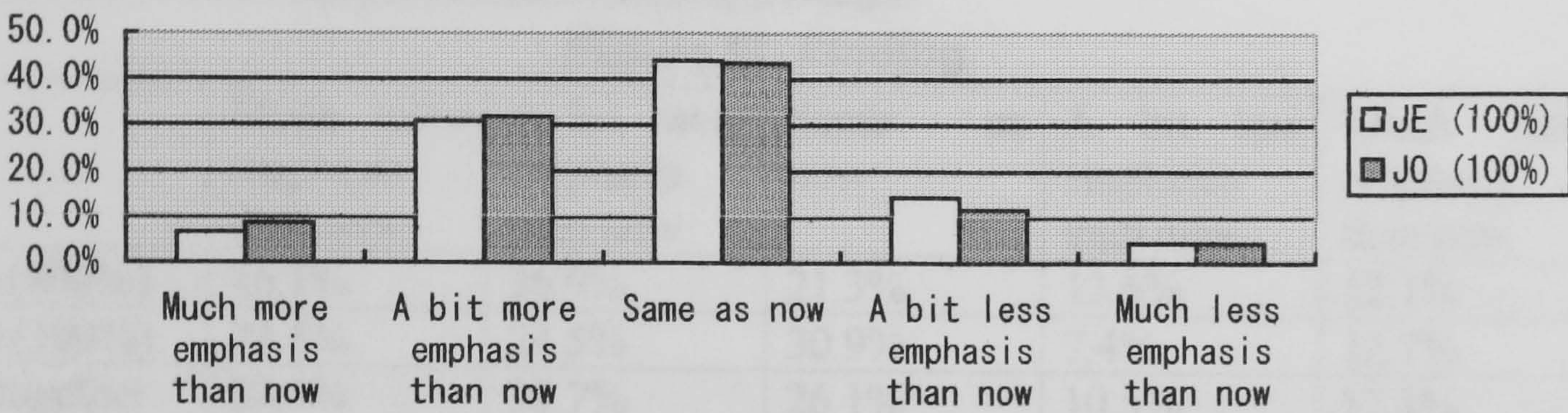
Question 10 asks about teaching methods which will be used in education for the global age. There are five methods listed in question 10, and the respondents are asked how much emphasis should be given in each teaching method in education for the global age. Teaching methods listed here are ranged from traditional to modern ones in order to look at various potentialities.

Question 10. How much emphasis do you feel should be given to the use of the following teaching methods in the global age?

Question 10.1. Collaborative activities where small groups of pupils have to work together as a team

Figure 54. Finding

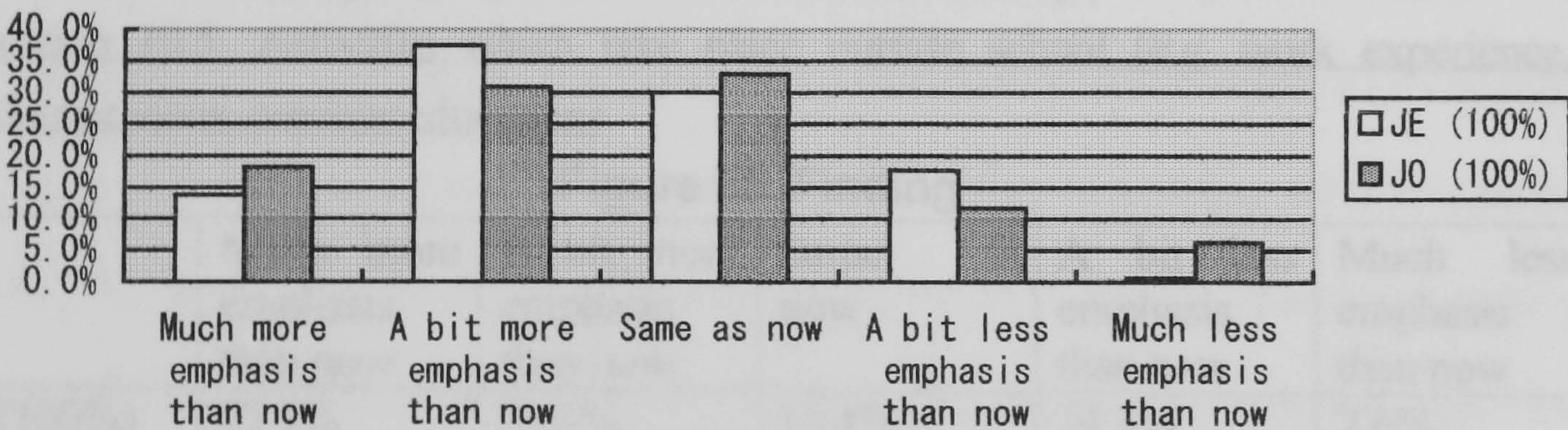
	Much more emphasis than now	A bit more emphasis than now	Same as now	as	A bit less emphasis than now	Much less emphasis than now
JE (100%)	6.6%	30.8%	44.0%		14.3%	4.3%
JO (100%)	8.5%	31.9%	43.6%		11.7%	4.3%
Altogether	7.6%	31.4%	43.8%		13.0%	4.2%



Question 10.2. Individualised programmes of work where each pupil can work alone at his / her own pace.

Figure 55. Finding

	Much more emphasis than now	A bit more emphasis than now	Same as now	as	A bit less emphasis than now	Much less emphasis than now
JE (100%)	13.9%	37.5%	30.1%		17.7%	0.8%
JO (100%)	18.1%	30.9%	33.0%		11.7%	6.3%
Altogether	16.2%	34.0%	31.4%		14.6%	3.8%

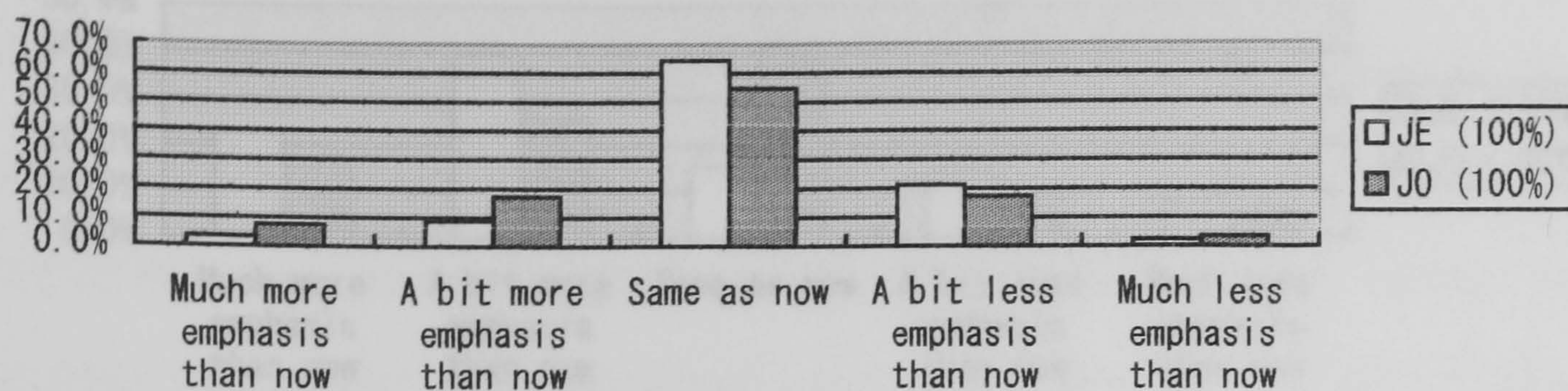


Question 10.3. Whole class teaching

Figure 56. Finding

	Much more emphasis than now	A bit more emphasis than now	Same as now	as	A bit less emphasis than now	Much less emphasis than now
JE (100%)	3.3%	8.9%	64.4%		21.1%	2.3%
JO (100%)	7.5%	17.2%	54.8%		17.2%	3.3%

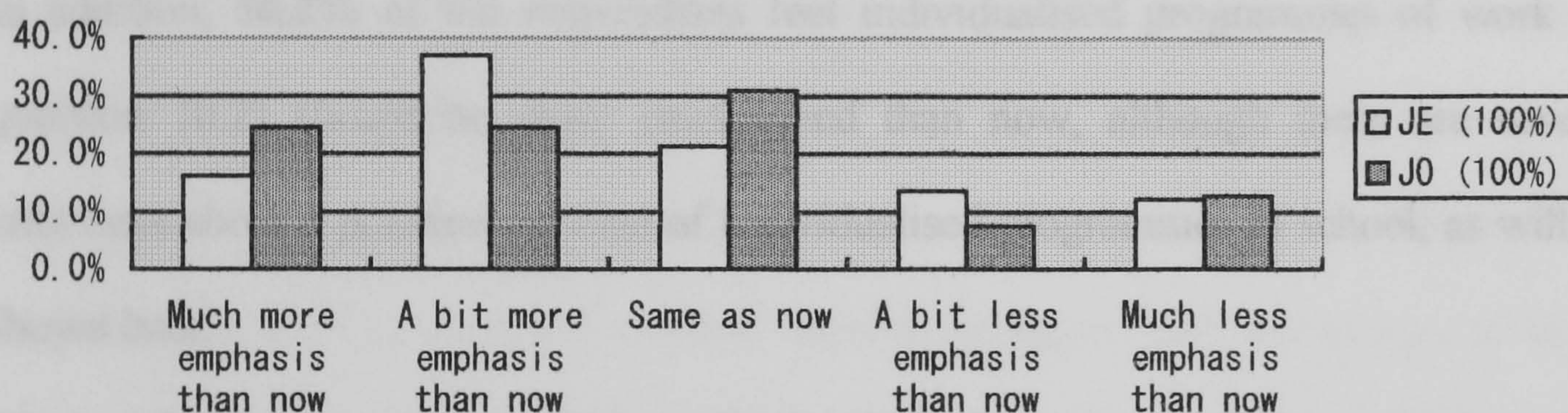
Altogether	5.5%	13.1%	60.0%	19.1%	2.3%
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Question 10.4. Computer assisted learning packages

Figure 57. Finding

	Much more emphasis than now	A bit more emphasis than now	Same as now	A bit less emphasis than now	Much less emphasis than now
JE (100%)	16.1%	36.9%	21.3%	13.6%	12.1%
JO (100%)	24.5%	24.5%	30.9%	7.4%	12.7%
Altogether	20.3%	30.7%	26.1%	10.5%	12.4%

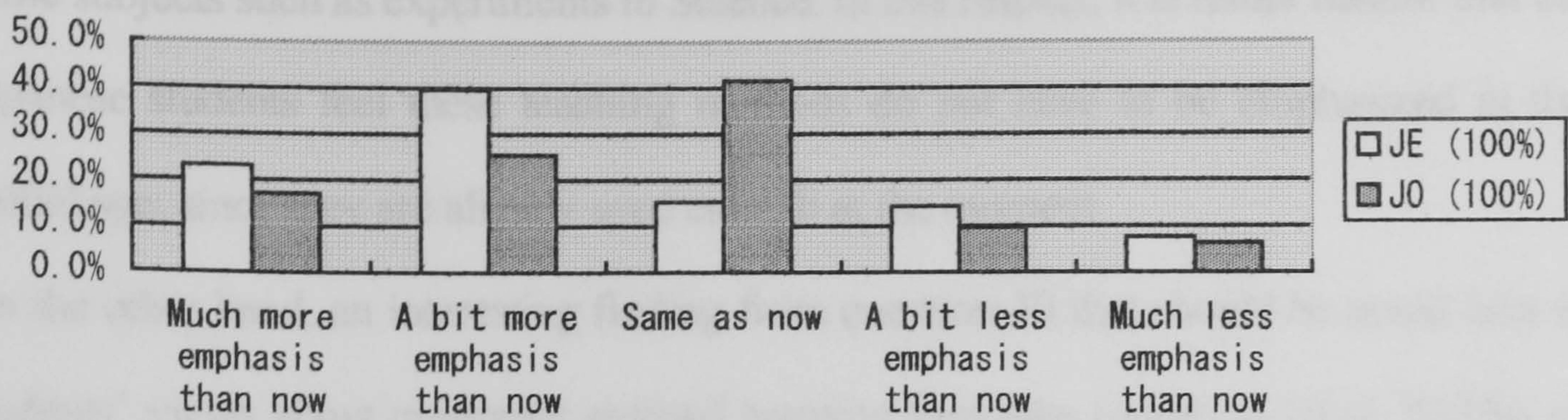


*Note: Due to a typing mistake, data of JE is from NUE only.)

Question 10.5. Activities which take place outside school (e.g. work experience, exchange visits, outdoor education)

Figure 58. Finding

	Much more emphasis than now	A bit more emphasis than now	Same as now	A bit less emphasis than now	Much less emphasis than now
JE (100%)	23.1%	39.6%	15.4%	14.3%	7.6%
JO (100%)	17.0%	25.5%	41.5%	9.7%	6.3%
Altogether	20.0%	32.4%	28.1%	11.9%	7.6%



Findings & Analysis

According to statistical tests, there are no significant differences in findings for question 10 between groups JE and JO. The teaching method, which most Japanese students place emphasis on, is about activities which take place outside school, as demonstrated in question 10.5 (see figure 58). In total, **52.4%** of all Japanese students emphasise this. In addition, **50.2%** of the respondents feel individualised programmes of work (in question 10.2) should be more emphasized than now, although there are several criticisms about a practical method of individualised programmes in school, as will be shown later.

Meanwhile, there are two teaching methods which the majority of the respondents feel should remain the same as now. For example, **43.8%** of students answer that collaborative activities where small groups of pupils have to work together as a team (in question 10.1) should be the same as now (see figure 54). In addition, **60%** of students think the whole class teaching method (in question 10.3), should remain the same as now (see figure 56). According to figure 56, there seem more students who have negative views about whole class teaching. In fact, one fifth of students answer that whole class teaching should be less emphasized than now.

The findings from questions 10.1 and 10.3 may reflect the current teaching methods in secondary school in Japan. For example, a teaching style used in most secondary schools in Japan is basically whole class teaching, regardless of the subject. In addition, a teaching method of collaborative activities through small groups is quite popular in

some subjects such as experiments in Science. In this respect, it is rather natural that the Japanese students feel these teaching methods do not have to be emphasized in the global age, since they are already used enough at the moment.

On the other hand, an interesting finding from question 10 that should be noted here is students' views about computer assisted learning packages (question 10.4). **51.0%** of all Japanese students feel that computer assisted learning packages should be emphasized (see figure 57). The number of students who answer it should be less emphasized is as high as 22.9%. Accordingly, the remaining 26.0% of Japanese students feel it should be same as now. We notice here that computer assisted learning packages will be a controversial issue to be implemented. This is because the most interesting fact is that most secondary schools in Japan have not successfully introduced computer assisted learning packages yet. In other words, the students' answer "same as now" can mean "it is not needed".

Although 26% of students who answer "same as now" in question 10.4 may not have strong opinions about computer assisted learning packages, their views may reflect a rather negative idea about computerised packages. In any respect, it is obvious that a teaching method using computer assisted learning package will be a controversial issue in the global age.

A Brief Summary of Findings from Question 10

More than a half of all Japanese students feel outside activities and individualised programmes should be emphasized in teaching methods in the global age. On the other hand, students suggest whole class teaching and collaborative activities should be the same as now. Above all, a teaching method using computer assisted learning packages will be a controversial issue. Although it will be increasingly introduced in school education in the global age, students' views about computer assisted learning packages are very vague at the moment. In the following sub-section, a question which asks

about the last important aspect of education for the global age will be examined.

SECTION 1.3.4. ASSESSMENT METHODS

The last question in the open-ended style is question 12, which asks about potential assessment methods in education for the global age. In question 12, there is a list of five main assessment methods which range from traditional to modern ones. The respondents are asked how much emphasis should be given in the same way as questions examined so far. The findings are as follows.

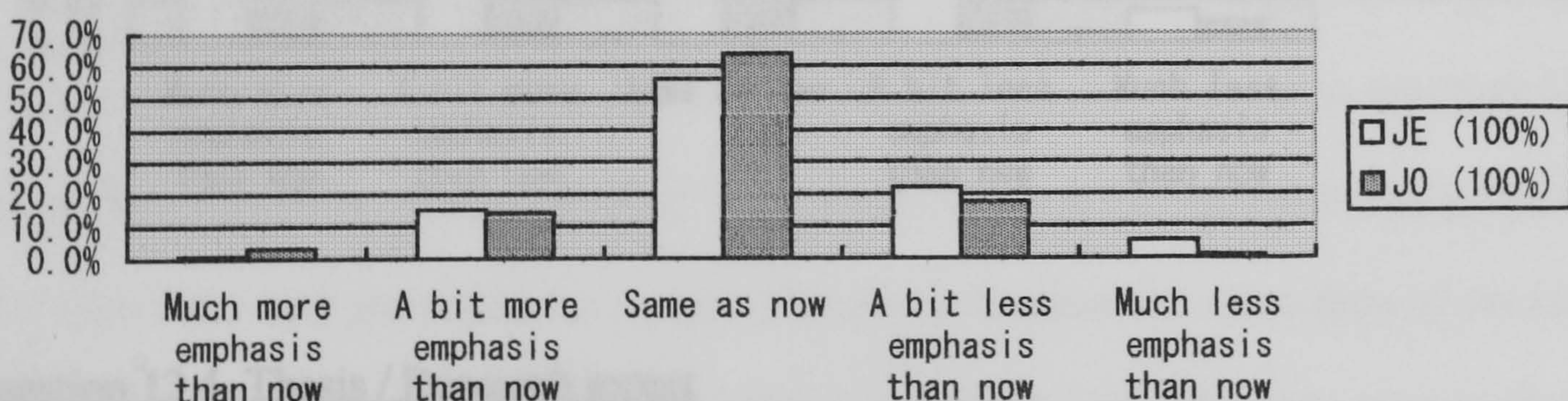
Question 12. How much emphasis do you feel should be given to the use of the following assessment methods in the global age?

Figures 59-63

Question 12.1. Written examination

Figure 59. Finding

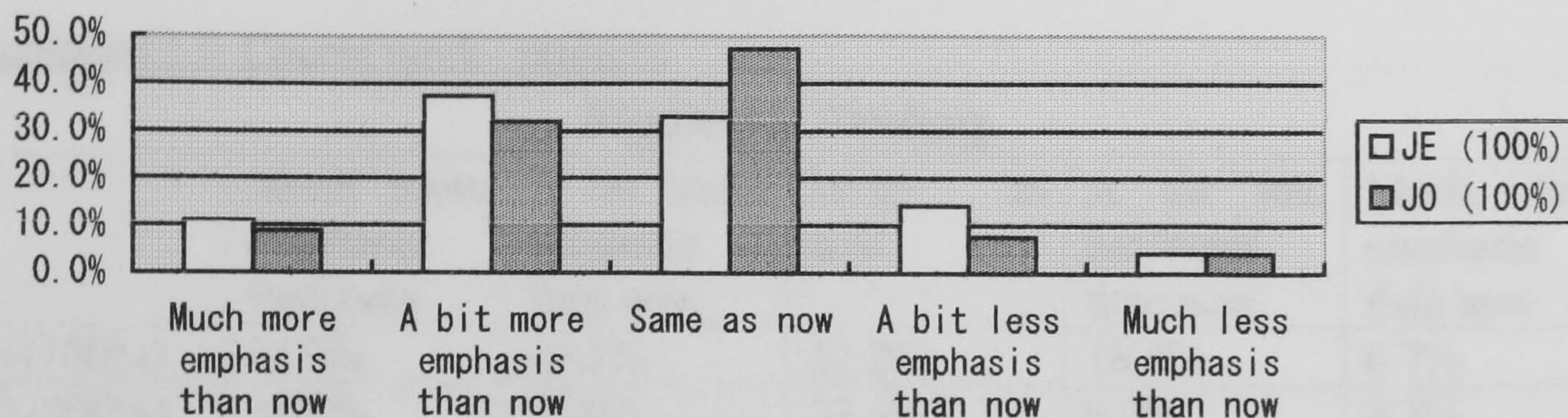
	Much more emphasis than now	A bit more emphasis than now	Same as now	A bit less emphasis than now	Much less emphasis than now
JE (100%)	1.0%	15.4%	56.0%	22.0%	5.6%
JO (100%)	3.3%	14.3%	63.7%	17.6%	1.1%
Altogether	2.2%	14.8%	59.9%	19.8%	3.3%



Question 12.2. Oral examination

Figure 60. Finding

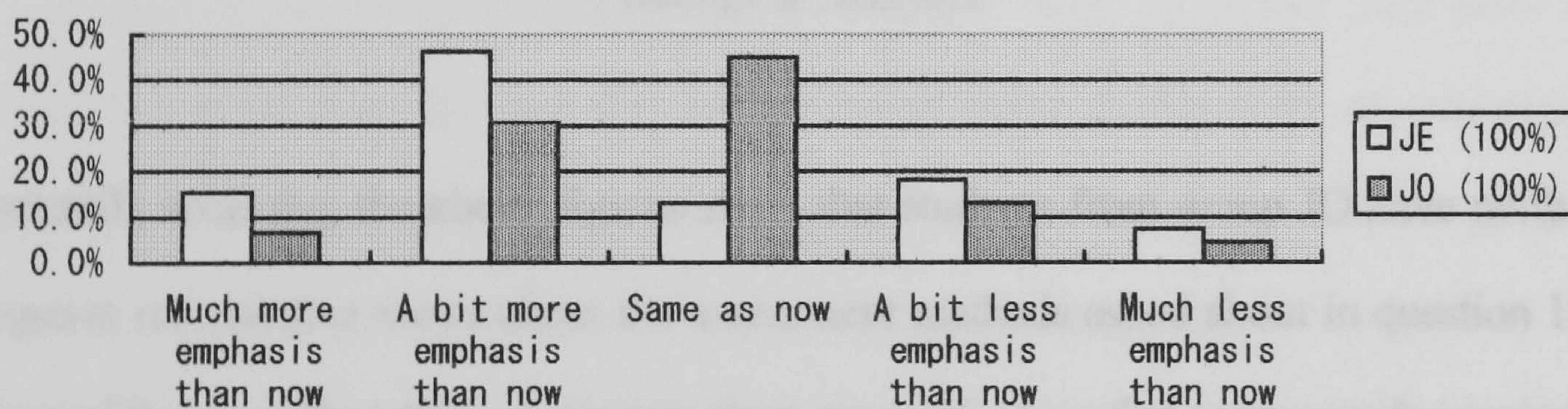
	Much more emphasis than now	A bit more emphasis than now	Same as now	as	A bit less emphasis than now	Much less emphasis than now
JE (100%)	11.0%	37.4%	33.0%		14.3%	4.3%
JO (100%)	8.8%	31.9%	47.3%		7.7%	4.3%
Altogether	9.8%	34.7%	40.2%		11.0%	4.3%



Question 12.3. Presentation in a class

Figure 61. Finding

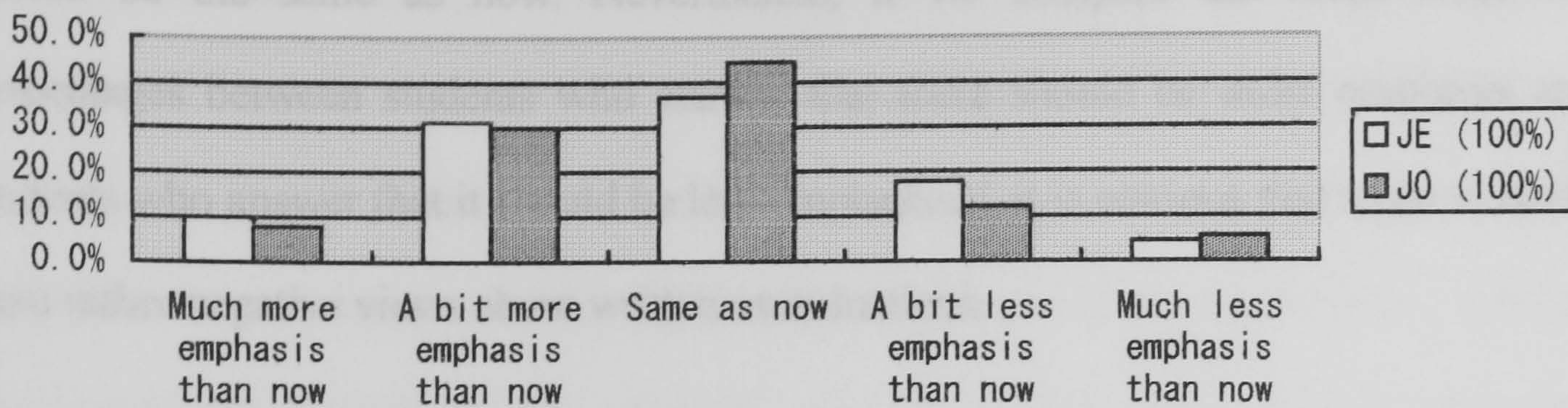
	Much more emphasis than now	A bit more emphasis than now	Same as now	as	A bit less emphasis than now	Much less emphasis than now
JE (100%)	15.4%	46.2%	13.2%		18.0%	7.2%
JO (100%)	6.6%	30.8%	45.0%		13.2%	4.4%
Altogether	11.0%	38.5%	29.1%		15.6%	5.8%



Question 12.4. Thesis / Research report

Figure 62. Finding

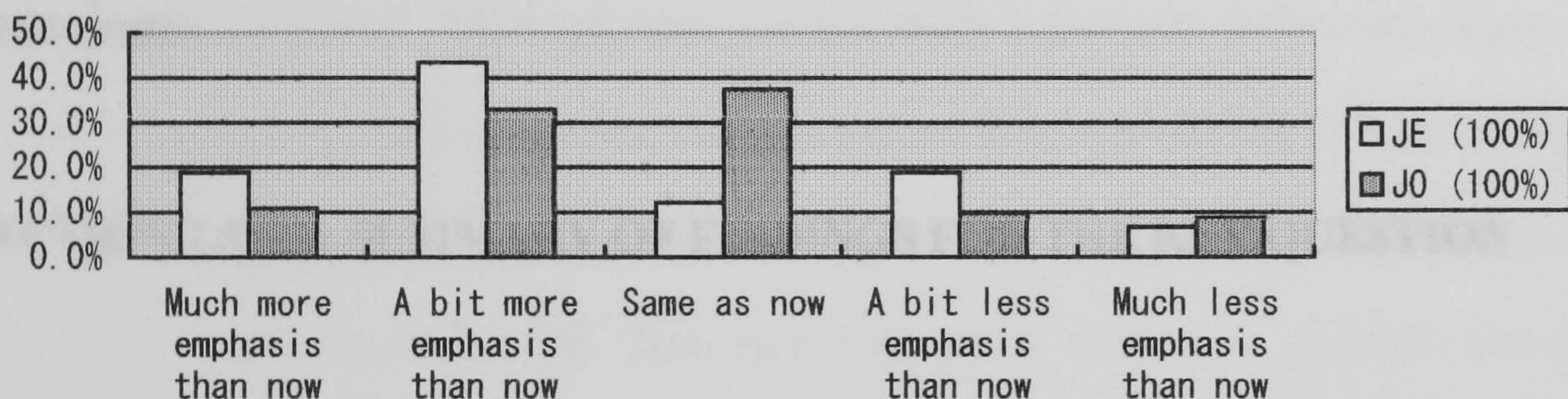
	Much more emphasis than now	A bit more emphasis than now	Same as now	as	A bit less emphasis than now	Much less emphasis than now
JE (100%)	10%	31.1%	36.7%		17.8%	4.4%
JO (100%)	7.8%	30.0%	44.4%		12.2%	5.6%
Altogether	8.9%	30.6%	40.6%		15.0%	4.9%



Question 12.5. Course work / projects

Figure 63. Finding

	Much more emphasis than now	A bit more emphasis than now	Same as now	A bit less emphasis than now	Much less emphasis than now
JE (100%)	18.9%	43.3%	12.2%	18.9%	6.7%
JO (100%)	11.0%	33.0%	37.4%	9.9%	8.7%
Altogether	14.9%	38.2%	24.8%	14.4%	7.7%



Findings & Analysis

Generally speaking, the above figures show that students from group JO have neither negative nor positive views about the assessment methods asked about in question 12. Meanwhile, more than 60% of students from group JE agree that course work / projects (see figure 63) and presentations in class should be emphasised more than at present (see figure 61). Students views about other assessment methods, oral examination, thesis / research report, are divided, although they seem slightly in favour of more emphasis (see figures 60 and 62).

An interesting finding from question 12 is about written examinations. According to figure 59, approximately 60% of all Japanese students answer that written examination

should be the same as now. Nevertheless, if we compare the mean frequency percentages between students who answer that there should be more emphasis and students who answer that it should be less emphasized, it is obvious that more students have rather negative views about written examinations.

A Brief Summary of Findings from question 12

On the whole, although strong opinions about assessment methods are not be found, many students feel that assessment methods asked about in question 12, except for written examinations, are basically should be emphasized. Most of all, more than a half of all students feel course work / projects should be emphasized more than now. Meanwhile, approximately 60% of all students say written examinations should be the same as now.

SECTION 1.3.5. A SUMMARY OF FINDINGS FOR THE KEY QUESTION

Questions 6, 8, 10 and 12 ask about a key question, students' views about education for the global age. Education for the global age, which is based on Delors' four pillar of education, is divided into the four main aspects such as the aims of education; curriculum contents; teaching methods and assessment methods. Here a general summary of findings from the above questions should be described.

Generally speaking, more than a half of all Japanese students answer that the aims of education for the global age listed in question 6 should be emphasized. As for curriculum contents, more than a half of all Japanese students feel curriculum contents which are relevant to Delors' four pillars should be emphasized more than now. However, most students answer that basic and high-level skills / knowledge and visiting and living in other countries should be the same as now or less emphasized than now, since these three types of learning have already been implemented in Japan. As for

teaching methods, students' views are divided into several opinions. Students answer that activities, which take place outside schools, and individualised programmes should be emphasized while they feel that whole class teaching and collaborative activities should be the same as now. Most of all, students' opinions show that teaching methods using computer assisted learning packages will be the most controversial issue in the global age. Finally, many students answer that assessment methods asked about in question 12, except for written examination should be emphasized.

On the whole, Japanese students are basically positive about emphasising the aims and curriculum contents which are relevant to Delors' four pillars of education. They also suggest many perspectives in teaching and assessment methods which will be appropriate to be used in the global age.

In terms of comparison, although there are not many significant differences between groups JE and JO by statistical tests, students undertaking non-teacher training courses tend to answer "same as now" through the questions 6, 8, 10 and 12. Although it is impossible to say findings from these questions verify there is a different attitude towards education between groups JE and JO, the following key question will throw light on this possibility.

SECTION 1.4. VIEWS ABOUT PROBLEMS OF IMPLEMENTING EDUCATION FOR THE GLOBAL AGE AT SECONDARY SCHOOL HELD BY STUDENTS AND STUDENT TEACHERS

In this sub-section, findings from a key question, asking students' views about problems implementing education for the global age will be examined. Questions 7, 9, 11 and 13 ask the respondents to write freely about their views about possible problems of implementing education for the global age.

Although there are few significant differences between groups JE and JO in the previous questions in section 1.3, the following findings reveal a different tendency in opinions between the two groups.

Question 7. Do you feel problems will occur if changes in the aims of education are to be implemented?

Question 9. Do you feel problems will occur if changes in the content of school curriculum are to be implemented?

Question 11. Do you feel problems will occur if changes in teaching methods are to be implemented?

Question 13. Do you feel problems will occur if changes in assessment methods are to be implemented?

Figure 64. Findings from questions 7, 9, 11 and 13

<i>Questions (The four aspects of education)</i>	<i>JE</i>		<i>JO</i>	
	Yes	No	Yes	No
<i>7. the aims of education</i>	61.2%	38.8%	45.4%	54.6%
<i>9. the content of school curriculum</i>	60.6%	39.4%	36.8%	63.2%
<i>11. teaching methods</i>	48.2%	51.8%	23.3%	76.7%
<i>13. assessment methods</i>	44.8%	55.2%	19.7%	80.3%

Figure 64 shows that more students who undertake teacher training courses (group JE) than other students (group JO) feel some problems will occur when changes in the four

aspects of education are implemented. In fact, significant differences between groups JE and JO in answers through questions 7, 9, 11 and 13 are observed by a statistical test as follows:

Figure 65. Results of a statistical test

<i>Questions</i>	<i>The Chi-square tests</i>
7.	$X^2 = 4.91, df = 1, P < 0.01$
9.	$X^2 = 10.45, df = 1, P < 0.01$
11.	$X^2 = 12.24, df = 1, P < 0.01$
13.	$X^2 = 13.37, df = 1, P < 0.01$

One possible reason for the above findings is that students undertaking teacher training courses (group JE) may be more concerned with educational issues. Another reason will be that more students from group JE than other students from group JO can easily imagine possible problems, since they have specialised knowledge about educational issues.

Furthermore, respondents are asked to outline what kinds of problems will happen, in order to clarify types of problems which will possibly occur.

If your answer is “yes”, please outline what kinds of problems they are.

Interestingly, there seem no significant differences in comments between the two groups, although it is impossible to verify it by a statistical test. There are five types of possible problems according to students’ views as follows:

1. Problems for teachers
2. Problems for school
3. Problems for pupils
4. Problems in the four aspects of education (aims, curriculum contents, teaching methods and assessment methods)
5. Problems in social and cultural context

In the following small parts, students' views about possible problems of implementing education for the global age are described with detailed qualitative analysis.

SECTION 1.4.1. PROBLEMS FOR TEACHERS

Students' comments that suggest problems for teachers will occur are often found through questions 7, 9, 11 and 13. The following figure shows findings which are relevant to problems for teachers in implementing the four aspects of education for the global age.

Figure 66. Findings which are relevant to problems for teachers

Questions	Possible problems*
7. <i>The aims of education</i>	“What kinds of people are suitable as a teacher? Teachers' ability will be a problem.” (12)
	“It may cause too much work for teachers to cope with.” (5)
	“Teachers will reject to implement these aims.” (3)
9. <i>The content of the school curriculum</i>	“Teachers' ability will be a problem.” (8)
	“More teacher training will be needed.” (8)
11. <i>Teaching methods</i>	“A lack of the number of teachers.” (10)
	“Teachers' ability will be a problem.” (6)
13. <i>Assessment methods</i>	“Teachers' work will be increased, and it becomes difficult for them to cope with.” (2)
	“Teachers' ability will be a problem.” (2)

* The researcher summarised the respondents' comments to a degree. The number in parenthesis is the number of students who note similar opinions.

Analysis

In the above figure, many students note that teachers' abilities will be a very significant issue if the four aspects of education for the global age are to be implemented. One possible reason is that teachers' work will be increased and became too much to cope

with, as some students have noted (see figure 66).

Apart from an issue of teachers' ability, two students note a key comment, which is the most reasonable and practical reason why teachers will be the main problem in implementing education for the global age. These two students are very concerned with teachers' jobs, and comment "what will happen to a subject teacher whose subject is to be deleted?". After all, this realistic question probably lies as the basic problem in / for teachers, and this is why many teachers will reject changes in the aims of education (see figure 66).

On the other hand, there are some comments which suggest what will be needed to implement education for the global age. For example, some students note that more teacher training would be needed and the number of teachers should be increased (see figure 66). Although it is impossible to say their opinions can be implemented in practice and they will be successful, these could be worth noting as some of the possible solutions for problems in / for teachers.

In conclusion, many students feel teachers will be a key element even for changing school education, as previously analyzed in section 1.2. According to students' opinions, some key issues such as teacher training and the number of teachers will need to be considered, although problems which are relevant to teachers seem very profound and difficult to solve.

SECTION 1.4.2. PROBLEMS FOR SCHOOL

There are several opinions which suggest problems for school will occur if education for the global age is implemented. The following figure is a summary of students' comments which are relevant to problems for school.

Figure 67. Findings which are relevant to problems for school

Questions	Possible problems*
7. <i>The aims of education</i>	“Time tables will be too tight.” (7)
	“Lack of time.” (7)
	“Areas are too large to cover.” (3)
9. <i>The content of the school curriculum</i>	“Lack of funds (e.g. funds for buying computers, visiting abroad).” (13)
	“Time tables will be too tight.” (12)
	“Too wide curriculum areas to cover everything completely.” (4)
11. <i>Teaching methods</i>	“Lack of funds.” (4)
	“A size of a class. The number of students in a class should be fewer than now.” (3)
	“Time table. There is not enough time.” (3)
13. <i>Assessment methods</i>	“Too tight timetables.” (3)

* The researcher summarises comments of possible problems to a degree. The number in parenthesis is the number of students who note similar opinions.

Analysis

The most frequently mentioned opinions, which are relevant to problems for schools, are about funds. Especially in question 9, which is about the curriculum contents, students are very concerned with funds to buy computers and to visit / live in other countries.

Secondly, time tabling is noted as another issue for schools if education for the global age is implemented. Some students mention that aims and curriculum areas which are listed in questions 6 and 8 are too large to cover in school education. This suggests some subjects might need to be reduced or deleted, in accordance with changes in the aims and the contents of school curriculum.

Apart from these practical opinions, there are some complicated problems in school noted by students. For example, there is a comment which criticises non-changeable school education. Two students note that “Schools may not cope with an information-oriented society.” This opinion indicates that school education may neither cope with changing society, nor serve social demands. Meanwhile, there are some opinions which

support rather academic education in school such as “Schools should not be a place for vocational training.” These remarks lead us to further discussion in a definition of the school’s role. To sum up, it is also important to consider how we should define the role of school education in the global age.

SECTION 1.4.3. PROBLEMS FOR PUPILS

Students’ views about possible problems for students when implementing education for the global age are frequently observed through questions 7, 9, 11 and 13. However, there are few specific opinions which are agreed by many students. Here some interesting comments should be noted as follows.

Figure 68. Findings which are relevant to problems for pupils

Questions	Possible problems*
7. <i>The aims of education</i>	“These aims will decrease a standard of pupils’ basic knowledge, since some subjects may need to be abandoned.” (4)
	“Discrimination to Asian people will be increased: pupils will only know what they are taught in school, and not learn the reality.” (2)
	“It may too early for pupils to learn these aims.” (2)
9. <i>The content of school curriculum</i>	“Pupils will learn some subjects very well, but others not.” (3)
	“Pupils choice for their future will be narrow.” (2)
	“Pupils will prefer to learn not academic but practical skills to obtain qualifications to get a job.” (1)
11. <i>Teaching methods</i>	“If pupils learn individually, they may not be able to learn to live in society, which organises communal living. It will be hard to learn social common sense.” (4) “Pupils will be too individualistic.” (1)
	“Collaborative work has a danger for some pupils into may be annoyed by other pupils within a group, since some pupils never work hard.” (2)
13. <i>Assessment methods</i>	“It is very hard for some pupils to express themselves.” (2)
	“Pupils who don’t like a presentation will drop out.” (1)
	“Pupils who are not good at expressing themselves will be regarded as lower developers no matter what the fact is.” (1)
	“Pupils will get confused.” (6)
	“Pupils who get used to using a “mark-sheet” test will be disturbed by these changes.” (1)
	“Pupils who are now regarded as “a genius” will drop out?” (1)

* The researcher summarises some comments to a degree. The number in parenthesis is the number of students who note similar opinions.

Analysis

The above figure shows that there are various types of opinions about possible problems for pupils if education for the global age is implemented. First, there are some opinions which are about students’ knowledge. Some students feel pupils’ standard of knowledge will be lower if the aims in question 6 are to be emphasized, while other students feel pupils will learn only a few specific subjects. These students’ views

indicate that some subjects need to be abandoned to implement the aims in question 6. In addition, some students feel that pupils' choices in the future will be narrow if pupils learn only a few specific subjects. This opinion reflects a criticism about specialised knowledge in a few subjects and supports the current curriculum areas, which are ranged from 8 to 10 core subjects (see chapter 1).

Another interesting opinion is about individualised programmes. As can be found in the above figure, there are a few opinions that insist that individualised programmes will be a problem for pupils, although half of the students answer that it should be emphasized more than now in question 10 (see figure 55). This opinion may reflect Japanese culture which respects harmony and treats some people who are too individualistic as heretics (Stephens, 1991, p.98)

Finally, the last interesting opinion is that there will be problems for pupils in assessment methods. Although approximately half of Japanese students feel that oral examination and presentation in class should be emphasized more than now (see figures 60 and 61), some students note these assessment methods will be a problem for pupils who are not good at expressing themselves.

A few possible reasons for these comments can be found in the Japanese cultural background. As Stephens (1991) notes, people who have a strong personality will be discriminated against and they are often victims of bullying in the case of Japan. Moreover, it is said that Japanese people rarely express their opinions directly and this is a part of established decorum. This cultural background may be the main reason for the problem for Japanese pupils to be assessed by oral examination and presentation in class.

In addition, some students insist that changes in assessment methods will be a problem for pupils, who have to prepare for an entrance examination to university. This indicates that pupils' main concern is about the entrance examination and the Japanese secondary school is regarded as a preparation for the examination.

In conclusion, students' views about problems for pupils raise some issues. According to their opinions, some subjects would need to be abandoned and it would cause some problems for pupils' standards of knowledge and their choices in the future. There are also some opinions about possible problems for pupils which reflect cultural issues in Japan.

In the following sub-section, students' views about problems in the four aspects of education which are asked about in questions 6, 8, 10 and 12 are described.

SECTION 1.4.4. PROBLEMS IN THE FOUR ASPECTS OF EDUCATION

There are a few critical opinions about the four aspects of education for the global age which are asked in questions 6, 8, 10 and 12. The following figure shows a summary of these opinions from students.

Figure 69. Findings which are relevant to problems in the four aspects of education for the global age

Questions	Possible problems*
7. <i>The aims of education</i>	“Developing a sense of being a citizen of the world is OK, but it’s more important to develop an individual identity as a Japanese.” (3)
9. <i>The content of the school curriculum</i>	“ICT skills can be very unfair for pupils who can’t have own computer in home.” (2)
	“Visiting abroad should not be sight-seeing.” (1)
11. <i>Teaching methods</i>	“Individualised programmes of work will be difficult to introduce.” (5) “Individualised programmes of work are simply impossible.” (2)
13. <i>Assessment methods</i>	Some assessment methods will depend on teachers’ subjectivity.” (19)

* The researcher summarised some comments to a degree. The number in parenthesis is the number of students who note similar opinions.

Analysis

First, developing a sense of being a citizen of the world is mentioned as a fundamental

problem in the aims of education for the global age. In fact, there are many criticisms of the concept of citizenship education as previously described in chapter 2, section 2.4.

Speaking of developing an identity as a Japanese person, there is another significant argument. As already explained in chapter 1, section 1.1, post-war education in Japan had been used as a tool for promoting extreme nationalism and militarism. Accordingly, there are people who are concerned that developing an identity as a Japanese person may cause extreme nationalism again, if it is introduced in Japanese education (Stephen, 1991). Nevertheless, this research has discovered that there are a few students as well as teachers who insist that developing an identity as Japanese should be emphasized more than now. In any case, the finding indicates that developing a sense of citizenship will be a very sensitive issue in education for the global age.

Secondly, there are two comments about problems in the content of the school curriculum. One is about Information and Communication Technology skills. However, it should be noted that personal computers are getting very popular, and the percentage of Japanese people who have their own computer increased from 16.6% to 37.7% in the last 5 years (Asahi Newspaper, 2000b). It suggests that the number of Japanese people who have an access with the Internet may be a similar proportion to Australia, Singapore and Hong Kong where more than 25% of population have access to the Internet (Asahi Newspaper, 2000a).

Although the number of computers in homes may not be yet enough to utilise computers as a learning resource in Japan, the situation of ICT which can be unfair for pupils who do not have their own computer at home might be improved. In any case, ICT in school should be considered carefully. At least schools need to provide enough computers, dealing with this type of problem.

Another problem in curriculum content is about visiting and living abroad. As previously examined in section 1.3.2, visiting and living abroad which is implemented as school excursion raises an important problem. This comment suggests that it may be

important to consider different methods other from school excursions, in order to introduce this curriculum content in school.

As for problems in teaching methods, individualised programmes are the main concern of most students. This finding implies that more detailed studies about individualised programmes in school will be needed, if it will be introduced in the global age, as half of the Japanese students advocated in question 10.

Lastly, there are several comments about problems in assessment methods listed in question 12. The most frequently observed opinion in this category is relevant to reliability of assessment methods other than written examinations. In fact, assessment methods except for written examinations will mostly require teachers' objectivity, and as many as 19 students have commented on their doubt about this (see figure 69). In the same way, some teachers who were interviewed in this research were also concerned with objectivity and reliability in assessment methods, which will be described later.

In conclusion, students' comments suggest that there are a few profound problems in the four aspects of education for the global age, although some of them seem to be solved. In the following sub-section, problems in social and cultural context are described.

SECTION 1.4.5. PROBLEMS IN SOCIAL AND CULTURAL CONTEXT

In this sub-section, problems, which may be caused by social and cultural aspects of Japan, are described.

Figure 70. Findings which are relevant to problems in social and cultural context

Questions	Possible problems*
7. <i>The aims of education</i>	“There exists an examination system for university, and it will be hard to overcome any problems. These aims won’t be able to implemented in a society which sets greater value on the academic career of an individual than on his real ability.” (15)
	“The conservatives will reject these aims.” (5)
	“These aims won’t be able to be implemented unless our society becomes good enough to consent to them.” (1)
	“In Japan we have to be very careful when we create something very new, for it is very difficult to change once a system has been settled.” (1)
9. <i>The content of the school curriculum</i>	“These contents are difficult to introduce because of the huge gap between them and academic subjects which must be learnt for entrance examinations.” (3)
11. <i>Teaching methods</i>	“These teaching methods won’t be introduced in practice. The reality won’t change so easily.” (2)
13. <i>Assessment methods</i>	“These assessment methods are fine if the style of entrance examinations is changed.” (2)

* The researcher summarised some comments to a degree. The number in parenthesis is the number of students who note similar opinions.

Analysis

The most striking comments through questions 7, 9, 11 and 13 will be found in this category: problems in social and cultural context.

First, what we notice in figure 70 is that many students believe that their society cannot be changed. There are a few possible reasons for this. As previously described in chapter 1, Japanese education has not experienced major changes since world war two, although there were many educational reports which improve it. This could be a good reason for Japanese people to believe that changing rules is very hard, and almost impossible.

This may also reflect ‘Japanese democracy’, which started after world war two. Before becoming a democratic country, Japan had closed her door to foreign countries for 200 years during the Tokugawa shogunate (see chapter 1). The feudalism established in this

period strongly affects the present Japanese society in some ways, although Japan consists of a democratic society now. For example, Japanese people are generally not very keen on issues about human rights, as mentioned chapter 2, section 1.11. In the same way, Japanese people may lack understanding of the meaning of democracy, and may tacitly believe that everything can not be changed unless the government gives orders (see chapter 1). In other words, Japanese people still possess feudalistic spirits in some respects, and this is why ‘Japanese democracy’ does not always share the same meaning as ‘democracy’ in other leading countries. The above comments noted by students explain the rather pessimistic views of Japanese society.

Secondly, a few students note that there are conservative people and who will reject the to implement aims in question 6. It is impossible to define who are ‘the conservatives’ in this case. They may be teachers, parents, students, older people, or policy makers. In any case, we may be able to say that ‘the conservatives’ in this comment may represent Japanese society, which has been reluctant to change for years.

Lastly, there are many comments about entrance examinations in Japan. Most students seem to believe that changes in Japanese education cannot be implemented unless a system of entrance examinations changes. This illustrates that many Japanese pupils feel pressure in order to make a success in terms of their academic career.

In fact, there are many comments which show how strongly pupils feel pressure from their parents too. Three students note that the highest priority for parents is to let children enter prestigious universities, so they will reject this type of education. In addition, 9 students comment that the aims in question 10 are very different from what parents expect for schools. These parents’ expectations may reflect social demands, which place great value on an academic career, as described in chapter 1.

In conclusion, these opinions may indicate that educational issues need to be considered within the cultural and social aspects of an individual’s own country.

Although these problems are profound, complicated and difficult to solve quickly, some

solutions should be considered in order to prepare for the global age.

SECTION 1.5. VIEWS ABOUT CURRENT EXAMINATION SYSTEM HELD BY STUDENTS AND STUDENT TEACHERS

As previously mentioned in chapter 1, an entrance examination to university is a central issue of Japanese education. In addition, findings from questions 6 to 13 reveal that changes in an entrance examination to university will be one of the key issues for implementing education for the global age.

Accordingly, asking about students' views about entrance examination is inevitable in the questionnaire. In questionnaires in the Japanese version, question 14 comes under this key question. In order to look at students' views thoroughly, the question asks students to write down their opinions fully.

Question 14. How do you think entrance examinations to university should change in the global age?

Although students' opinions about entrance examinations to university vary widely, they are divided in main four categories.

1. Opinions which suggest change
2. Opinions which mention how to change
3. Opinions which do not suggest change
4. Opinions which mention changes in university

Analysis

First, there are many opinions which criticise the current entrance examinations to university for question 14. Seven students comment that entrance examinations should change, although they do not mention how. Another two students even note entrance

examinations should be abolished. In addition, there are many critical opinions about written examinations. Three students note their feeling about the unfairness of written examinations, which are usually held on only one day. In addition, there are as many as 13 opinions criticising the style of entrance examinations, which is usually the written examination and heavily depends on pupils' knowledge and memory.

Secondly, the respondents write down various opinions about how to change entrance examinations in question 14. The following figure shows a summary of the most frequently observed ideas from the respondents.

Figure 71. The most frequently observed opinions about how to change the current entrance examinations

	OPINIONS*
<i>1</i>	“An oral examination instead of written examination should be emphasized / introduced.” (33)
<i>2</i>	“Examinations should examine personal / humanistic development of each pupil.” (29)
<i>3</i>	“An essay-format examination should be introduced.” (28)
<i>4</i>	“There should be more subjects to choose at examinations.” (15)
<i>5</i>	“All pupils should be able to apply to any universities by taking exams in subjects they are good at.” (11)

* The researcher summarised some comments to a degree. The number in parenthesis is the number of students who note similar opinions.

The above five opinions are observed quite often in the comments of the Japanese students. First of all, although some students mention that an oral examination will be a problem in section 1.4.4, as many as 29 students note that a method using an oral examination should be introduced / emphasized as an alternative for a written examination. Another 28 students suggest another method of entrance examinations that uses essay-format. In addition, 15 students note that there should be more subjects to choose at examinations while 11 students mention that pupils should be able to take examinations in particular subjects which they are good at. On the whole, these

practical opinions suggest that there needs to be more flexibility in the system of the entrance examinations.

On the other hand, there is another opinion, which implies that examinations should look at pupils' humanistic development. As is shown in figure 71, as many as 29 students mention this type of opinion. Another student notes that examinations should look at pupils' social skills. Although these opinions will be very difficult to implement, it is worth noting that there are many Japanese students who suggest that examinations need to look at not only academic achievement but also, the humanistic development of each pupil.

Apart from these five frequently observed opinions, there are a few opinions which explicitly describe an alternative method of entrance examinations. The following opinion, which is mentioned by a student who is undertaking a teacher training course, describes how an oral examination should be implemented.

“At an oral examination, each pupil has a chance to discuss the topic in a group discussion. Examiners will assess each pupil's skills to express themselves, and their knowledge.”

Moreover, another student describes how entrance examinations should be. As follows:

“Pupils are assessed by results from (A) a record at secondary school; (B) a national test which examines basic knowledge; and (C) other tests, such as essays, thesis, reports.”

In addition, there are a few opinions which insist that examinations should look at pupils' motivation to learn at the university.

On the other hand, there are a few students who suggest the current entrance examinations should remain the same as now. The following figure shows some of their opinions.

Figure 72. Opinions which do not suggest changes in the current entrance examinations

OPINIONS*	
1	“They don’t have to change.” (2) “They don’t have to change, because theory and practice is always different.” (1) “They don’t have to change, because it is fair for all pupils to be examined by one method.” (2)
2	“I think high-level knowledge should be examined in order to continue our education at a higher level.” (3)
3	“In the end, they won’t change unless our society, which sets a greater value on the academic career of an individual than on his real ability, changes.” (3)

* The researcher summarised some comments to a degree. The number in parenthesis is the number of students who note similar opinions.

According to opinions in figure 72, students who do not suggest changes in the current entrance examination are concerned with fairness of the examination and standards of education. In some respects, these opinions reflect some advantages of the current examinations to university.

In addition, a few students note a rather pessimistic idea about Japanese society, which places greater value on the academic career. As already mentioned in section 1.4.5, an argument of educational issues, especially a system of entrance examinations, includes social and cultural issues in the case of Japan.

So far, opinions which suggest change, mention how to change, and do not suggest change are described. Among several opinions about entrance examinations, there is another opinion which should be noted here.

As many students believe that secondary school education will not change unless their society changes, they also seem to believe that the entrance examinations will not change unless university changes. The following opinions are often found in comments for question 14.

Figure 73. Opinions which mention changes in university

OPINIONS*	
1	“University should be entrance-easy, graduate-hard.” (13)
2	“The content of the subjects should cope with changing society, should be up-to-date.” (6)
3	“The curriculum contents of universities in Japan are not high-level, so no students learn a lot.” (2)
4	“Each university should have its own character.” (2)
5	“University should provide an excellent environment / resource for students to learn.” (1)

* The researcher summarised some comments to a degree. The number in parenthesis is the number of students who note similar opinions.

In this category, the most frequently mentioned opinion is about changes in entrance examinations and assessments in university. Some students mention that entrance examinations should become easier while credits in university courses should be harder to receive, like American universities.

In addition, there are a few critical opinions about the contents in courses in university. Many students feel the content are too out-of-date and too easy to follow. As already cited in chapter 1, there are many students who feel they are wasting their time by going to university.

In conclusion, we may be able to say that a discussion of entrance examinations ranges over a wide area, from cultural and social aspects to higher education. It is obvious that these arguments need to be included in implementing education for the global age.

In the following section, findings for the last key question are described.

SECTION 1.6. VIEWS ABOUT HOW SECONDARY SCHOOLS SHOULD CHANGE IN THE GLOBAL AGE HELD BY STUDENTS AND STUDENT TEACHERS

Question 15, the final question in the Japanese version, asks about students' views about how secondary schools should change in the global age. Students' views are divided into the following eight categories:

1. Curriculum contents
2. Aims of education
3. Assessment methods
4. Teaching methods
5. Teachers
6. Parents
7. Schools
8. Others

First, the most frequently found opinions in question 15 are about curriculum contents.

The following figure shows some of them.

Figure 74. Opinions about curriculum contents

OPINIONS*	
1	“Less compulsory subjects, and more options.” (22)
2	“School events and societies / don't have to change. Pupils should be more active.” (11)
3	“ICT is fine, but more emphasis on developing pupils to think for themselves.” (6)
4	“Contents to cope with internationalisation are needed.” (6)
5	“More computers, more ICT skills should be included.” (5)
6	“They should include more practical skills, which can be used in the real world, e.g. ICT, English speaking skills.” (5)
7	“Current curriculum contents (subjects) are important, but at the same time we should create a positive learning culture which encourages pupils' motivation to learn.” (4)

* The researcher summarised some comments to a degree. The number in parenthesis is the number of students who note similar opinions.

According to the above opinions, many students feel there are too many compulsory subjects in secondary school education in Japan. On the contrary, there are many comments which state that the current curriculum is basically fine.

There are also a few opinions that imply that the curriculum contents should cope with internationalisation. Simultaneously, some students note that curriculum contents should be up-to-date and more practical. In this way, opinions about emphasis on ICT are quite often observed. At the same time, there are also some opinions which say that not only ICT but also developing pupils to help them think for themselves as well as humanistic education is also important in secondary school education.

Secondly, there are also many opinions about the aims of education in the global age. In this category, students' views which set the aims at a global scale are rarely found but there are many opinions about humanistic, personal and social education as follows.

Figure 75. Opinions about the aims of education

OPINIONS*	
1	“More education which values human relationships.” (13)
2	“Balance between individualism and harmony is very important.” (11)
3	“Education which encourage pupils to have a broader views of the world.”(8)
4	“Not a preparation for entrance examinations, but education should be able to develop individual ability.” (8)
5	“Developing greater autonomy for each pupil will be very important.” (6)

* The researcher summarised some comments to a degree. The number in parenthesis is the number of students who note similar opinions.

According to figure 75, the aims of education about human relationships seem the most important issue for Japanese students in education for the global age. In addition, developing greater autonomy and individual ability is also frequently mentioned as an important aim of education. There are also critical opinions about current secondary school education, which is regarded as a preparation for entrance examinations to university.

Here it will be worth mentioning a current research report of the Educational Research

Institute in Sagamihara, Japan (Watanabe, 2000). In this research, a questionnaire about school education in the 21st century was administered to 2,200 parents in June 1999, with 83% of the response rate. One of the findings of this research reveals that what most parents (approximately 80%) feel should be emphasized in school education is to develop good relationships with people. This report shows that opinions about the aims of education held by both parents and students link closely together.

As for comments about assessment methods, there are a few opinions which insist on more presentation and discussion and less written examinations. This is the same as findings from question 12.

Students' views about teaching methods are also found in question 15. Three students note that teaching methods should be more interesting, e.g. using pictures and photos. In addition, two students suggest that classes should be divided according to each pupil's academic knowledge.

There are also some comments about teachers. As previously found in section 1.4.1, these comments seem rather hard for teachers to accept. As many as eight Japanese students doubt whether teachers have a satisfactory ability. Five other students criticise a lack of communication between teachers and pupils.

Opinions about parents are observed more frequently than the researcher expected. Parents' attitudes towards education, lack of parental awareness of home training, and a lack of communication between school and parents are often taken as problems in implementing education for the global age.

The second frequently found opinion in question 15 is about schools. The following figure shows some of them.

Figure 76. Opinions about schools

OPINIONS*	
1	“It should decrease the number of pupils in one class to around 20 to 30.” (12)
2	“It does not have to decrease the number of pupils in one class, since it is important to develop skills to cooperate.” (3)

* The researcher summarised some comments to a degree. The number in parenthesis is the number of students who note similar opinions.

As found in figure 76, many opinions are about the size of class. Although the above two typical opinions are contradictory, this shows the size of class is the main concern of many students.

Finally, there are many interesting opinions which should be categorised in ‘other opinions’. Although there are no opinions which view education at a global scale, many of them reflect the current Japanese education in many ways.

Figure 77. Other opinions

OPINIONS*	
1	“We always say ‘we will change’, but in reality, we don’t change at all, and this is a problem!” (2)
2	“Teachers can’t control pupils’ truancy and bad behaviour. I think schools’ learning environment will be worse.” (1)
3	“If pupils drop out once, they have no chance to make up the lost time, and it is a problem.” (1)
4	“I don’t think all pupils need to go to university. I came to university because I wanted, and it’s fine for me to take a hard examination for that.” (1)
5	“In the current education in Japan, we learn basic knowledge at lower secondary schools, learn incredibly high-level knowledge at upper secondary schools, and learn nothing at university. It’s absolutely ridiculous.” (1)

* The researcher summarised some comments to a degree. The number in parenthesis is the number of students who note similar opinions.

Although the above opinions reflect Japanese education in many ways, there is an important point which should be noted here. As can be seen in figure 77, there are many critical opinions about current Japanese education, but none of them talk about what education should be in the global age. Many people may find that comments from Japanese students in this category are disappointing to a certain extent, for they hardly

try to provide possible ways to make education better but only keep complaining. This makes a good contrast with English students' opinions, which will be described in the following chapter.

In conclusion, the questionnaire to Japanese students reveals that there are many findings which reflect Japanese education in many ways. In the following section, findings from interviews with Japanese teachers in secondary school are described.

SECTION 2. PRESENTATION AND ANALYSIS OF INTERVIEW DATA FROM JAPANESE TEACHERS

In addition to questionnaires to university students, interviews with secondary school teachers were conducted as follow-up research in this study. In this section, findings from group E, Japanese secondary school teachers, are described. There are eight questions in the interviews with teachers as follows.

1. What do you imagine is meant by “a global age”?
2. Do you think the aims of education for secondary schools should change to better prepare pupils for the global age? If so, how?
3. Do you think the curriculum content taught in secondary schools should change to better prepare pupils for the global age? If so, how?
4. Do you think the teaching methods in secondary schools should change to better prepare pupils for the global age? If so, how?
5. Do you think the methods of assessment in secondary schools should change to better prepare pupils for the global age? If so, how?
6. Do you think an entrance examination to university should change? If so, how?
7. What kinds of problems do you think will occur, if changes in the above questions are to be implemented?
8. Finally, please let me know if there is anything else which should change in education for secondary schools.

As can be seen from the above, all questions are similar to the ones in the questionnaire in order to follow up findings from students as well as to collect teachers’ views in depth. In the following sub sections, findings from teachers are described.

SECTION 2.1. BACKGROUND INFORMATION AND QUESTION 1

As previously mentioned in chapter 4, section 2.3.1, interviews were conducted in lower and upper secondary schools, and the total respondent population was 23. All

teachers were randomly selected in accordance with availability and figure 78 shows the general background of the respondents.

Figure 78. Background information of the respondents

	LOWER S.S. :10	UPPER S.S. :13	ALTOGETHER :23
Gender	Male: 8	Male: 7	Male: 15 (65.2%)
	Female: 2	Female: 6	Female: 8 (34.8%)
Subjects	Science: 2	Science: 1	Science: 3 (13.0%)
	Japanese: 2	Japanese: 2	Japanese: 4 (17.4%)
	English: 1	English: 6	English: 7 (30.4%)
	Social studies: 2	Social studies: 2	Social studies: 4 (17.4%)
	Mathematics: 1	Mathematics: 2	Mathematics: 3 (13.0%)
	Music: 1		Music: 1 (4.4%)
	Physical education: 1		Physical education: 1 (4.4%)
The teaching records (years)	Shortest: 2 years Longest: 35 years Mean: 23 years	Shortest: 1 year Longest: 32 years Mean: 17 years	Mean: 20 years

Although there are a few issues to note here, the most important point is that teachers taught a wide range of subjects. This enables the researcher to consider if there is a different approach in education for the global age in accordance with each subject. In addition, the researcher was able to interview teachers who had taught for only one or two years, and other teachers who had taught for more than 30 years. Therefore, any influence of teaching experiences in the answers will be interesting to explore.

We should now look at findings from question 1.

Question 1. What do you imagine is meant by “a global age”?

Question 1 encourages the respondents to imagine ‘a global age’ without the researcher’s suggestions and to prepare for the following main questions.

In teachers’ opinions, the most frequently mentioned key words regardless of their background are “a global scale” and “borderlessness”. The following quotation from

two different teachers represents the typical opinion of many other teachers.

“The age when the whole of mankind deal with issues on a global scale.”

“Borderlessness. To become a smaller world. People frequently move and travel around the world, and I feel foreign countries will become much nearer psychologically.”

Generally speaking, what teachers imagine by the term ‘a global age’ is basically the same as the researcher’s view, which has been described in chapter 2, section 1. Apart from the above typical remarks, there is a unique opinion from a science teacher as follows.

“I am teaching sciences, so when I hear the word “global”, I take it as a physical matter. So, “a global age” reminds me of the universe and space. In the past, sciences were divided into ‘physics’, ‘chemistry’, and ‘biology’, but nowadays they are unified as interdisciplinary studies. This is I feel “global”!”

On the other hand, there is a serious and rather practical opinion which reflects current social aspects in Japan.

“...I think an introduction of the concept of ‘a global age’ in secondary school is very difficult. Pupils and parents even don’t know the word “global”. I think it takes time for everyone to develop global views.”

This remark reflects Japanese social aspects and supports students’ opinions about problems in the social context, which are described in section 1.4.5. It indicates how seriously social aspects influence educational issues in secondary school.

Based on teachers’ idea in question 1, the respondents were asked the following questions which constituted the main body of the interview. These questions are provided in accordance with the key research questions which are described in chapter

4, section 1.

SECTION 2.2. TEACHERS' VIEWS ABOUT EDUCATION FOR THE GLOBAL AGE AT SECONDARY SCHOOL

Questions 2 to 5 ask about one of the key research questions, teachers' views about education for the global age at secondary school. In the same way as a questionnaire, the four aspects of education, which are the aims; the contents; teaching methods and assessment methods, are asked. We start by looking at findings from question 2.

2.2.1. THE AIMS OF EDUCATION

Question 2. Do you think the aims of education for secondary schools should change to better prepare pupils for the global age? If so, how?

Most Japanese teachers answer 'yes' for this question. Nevertheless, in findings for this question, there are only a few opinions which mention Delors' idea of 'learning to live together', which is to learn about social skills to live together in the global age. As for 'learning to do', which concerns vocational training purposes, there are no related opinions. In the same way, only a few teachers mention 'learning to know', which is to master knowledge as a basic necessity for many purposes. These are very interesting findings, since more than half of the Japanese students answer that aims concerned with 'learning to do', 'learning to live together', and 'learning to know' should be emphasized more than now (see section 1.3.1).

On the other hand, the most frequently observed opinion in this question is about 'learning to be', humanistic and whole person education. Since the Japanese students are also more concerned with this type of learning (see section 1.3.1), this finding

indicates that the personal and social development of pupils rather than academic achievement is currently at the centre of the Japanese educational movement (see chapter 1, section 1.3). The following opinions represent the views of many Japanese teachers.

“I think the answer to this question will depend on how we take the meaning of ‘education’. Generally speaking, ‘education’ is regarded as ‘acquiring a lot of knowledge’. Especially in Japan, problems are found in cramming schools and in entrance examinations to university. But I think ‘education’ has a very different meaning from the above. Both teachers and the Ministry of Education should determine what we should ‘educate’ in schools, and should have the same aims. Apart from the targets in each subject, I myself think the aim of education should be to let pupils learn how positively they live in a society and all we teachers should do is to help and advise them on that issue. The most important aim is pupils’ humanistic development, followed by it, there is each subject to learn.”

Apart from the above opinion, there are some interesting views which reflect Japanese education as some of the Japanese students have also mentioned. One teacher, who taught for seven years, describes practical aspects of upper secondary school education as follows:

“The current cramming education system is said to be less effective, so it (the aim of education) should change. But I can’t do anything else but let pupils cram for the exam. Our hierarchical education style puts university as the highest priority, so at the moment the competitive examination hell won’t change.”

On the other hand, another teacher, who has 32 years’ teaching experience describes “Japanese society” as follows.

“We Japanese have a uni-racial society, so we are reluctant to think and act on a

global scale. Even now, when I meet foreign people in Japan, I have a strange feeling with them. In this respect, what Japanese did in the past in the Edo era (the Tokugawa Shogunate, 1603~1867) influences us strongly even now.” (About the Tokugawa Shogunate, see chapter 1)

These two different teachers’ opinions well illustrate Japanese society, which does not change a lot, and sets greater value on the academic career. Many Japanese students also note the same opinions as these, as has been described in section 1.4.5.

In these opinions, it is possible to see the strength of social and cultural influences on education. In addition, the above remarks also suggest that teachers’ ability to cope with changes will be the main concern, as many students have pointed out in the questionnaire.

2.2.2. CURRICULUM CONTENT

Question 3. Do you think the curriculum content taught in secondary schools should change to better prepare pupils for the global age? If so, how?

This question brought mixed reactions from teachers. Some teachers say ‘yes’, while others answer that the curriculum content does not have to change. In some cases, teachers’ views depend on their teaching subject. The following three quotations will represent many teachers’ opinions. First, opinion from a teacher who teaches Japanese:

“Yes, I think the content of Japanese is now changing to look at topics which contain world-wide issues. Among various kinds of topics, such as the classics, contemporary writings, poetry, novels, I think we recently use the news editorials, articles, and records. These contents include such things as environmental issues, and issues which should be dealt with by many countries.”

The following comment is from one teacher who teaches social studies.

“Yes it should and actually it’s changing. Especially, learning about international society is getting very popular. In one of the topics of social studies, we have a theme about international society which is mainly about up-to-date issues happening in the world. When teaching about NATO, I coincidentally heard the news from Kosovo. Then I and the pupils felt as if it were our own concern, and I thought teaching about current issues could be effective since they were very real.”

On the other hand, an opinion from a science teacher reflects a reality of Japanese education and points out an educational crisis, especially in sciences.

“It’s very hard to keep a certain standard level in sciences now. Children don’t study hard as before, and if they do, it’s only for the entrance examinations, and they never learn academically. Pupils don’t read books, write down what we teach in a lesson, so that they don’t understand a little bit complicated subjects, such as sciences.”

This opinion supports the Japanese students’ views, which show negative attitudes towards mathematics and science (see section 1.2). Although it is not the main concern here, it is worth noting that a survey has revealed that Japanese pupils in upper secondary school do not study hard compared with American and Chinese pupils (Nihon Keizai Shinbun, 2000b). In this respect, it is possible to say that the above remark clearly reflects Japanese pupils’ attitudes towards studying.

In addition, the criticism of the current educational reform which insists on “*kokoro no kyoiku*” (see chapter 1) is strongly related to this type of opinion. Currently, not only teachers but also policy makers are very concerned with the new reform which suggests a large reduction of academic content taught in school (Nakano, 2000). The argument of the new reform is continuing and will become a core issue of secondary school education in the near future (Yomiuri Shinbun, 2001). The above finding and these

arguments indicate that the curriculum content needs to be well balanced between personal and social education and academic subjects.

The above three remarks indicate that teachers' opinions about curriculum contents in the global age often depend on their teaching subject. In some subjects, such as science, the reality seems far from a discussion of the global age. In education for the global age, some approaches will be inevitable to develop pupils' motivation for certain subjects.

On the other hand, there are a few opinions which can be found in students' views. The following remarks reflect Japanese society, and remind us of students' critical opinions, which mention teachers' ability.

“Yes, the content should change. But I have no clear ideas about it. ‘Flexibility and creativity in education’ is a keyword of the current education reform, but I don’t know what to do in practice.”

“The content will change. Basically the Ministry of Education should decide it, though.”

“If the entrance examinations to university were to change, so would secondary schools' aims, curriculum contents and assessment methods.”

The above remarks show not only the reality of Japanese education but also teachers' attitudes towards educational issues. As shown, one teacher seems not have a vision about the task. Another teacher seems to believe that the government should decide educational issues and that its contents are none of their business. The last remark almost admits that the teachers' task is to let pupils prepare for the entrance examinations to university.

Although these remarks reflect profound cultural issues, these teachers' attitudes may also indicate one of the reasons why Japanese education has not experienced radical changes since world war two. Students' critical opinions pointing out that there are problems in teachers' ability and social aspects are supported by these teachers'

opinions.

2.2.3. TEACHING METHODS

Question 4. Do you think the teaching methods in secondary schools should change to better prepare pupils for the global age? If so, how?

Question 4 is about the teaching methods in the global age. Most teachers regardless of their teaching subject answer that it will change, but rarely mention how. The most frequently observed opinion for this question is that there are various types of teaching methods and they depend on the teacher.

In fact, there is an interesting finding from the two teachers, who both teach Japanese but have a very different view. One teacher, teaching Japanese for 35 years, answers as follows:

“I don’t simply explain and comment on the contents of the literature. Since pupils are nowadays not good at thinking skills, I emphasise further studies such as letting pupils think about what the topic means. In the 21st century education, reading and writing are not enough to survive.”

On the other hand, the other teacher, who has been teaching Japanese for two years says, “well, maybe the teaching methods won’t change. Reading and writing. That’s all”.

Nevertheless, it should be worth mentioning here the current research to parents held by the Educational Research Institute in Japan (Watanabe, 2000). It reveals 65% of the respondents feel that developing pupils’ thinking skills rather than rote education should be more emphasized.

In any case, these remarks make a very good contrast, and illustrate that teaching methods vary depending on the individual teacher.

Meanwhile, there are a few teachers who mention possible teaching methods which

will be used in the global age in their teaching subject. One teacher whose subject is social studies comments as follows:

“It’s very effective to use audio visual aids. For example, using video, and satellite programmes. BS [the Japanese satellite TV programmes] contains current issues such as world news, so it’s worth using. I feel there is a limit in using a textbook only.”

Another teacher, who teaches science also has a similar idea as follows.

“I think teaching methods are changing. Using computers, audio-visual aids such as pictures, photos, tapes, OHP, videos, TV become very popular.”

In terms of comparison with findings from Japanese students, no teachers even mention individualised programme and outside activities, which are noted by more than a half of Japanese students for emphasis in the global age (see section 1.3.3). As many Japanese students mention that individualised programme will be difficult to introduce (see section 1.4.4), it will be a less practical method for Japanese teachers.

On the other hand, there is an interesting opinion which mentions a difficulty in introducing teaching methods which are successful in foreign countries. One teacher, who taught physical education for 15 years, described his experience.

“In the case of Japanese physical education, I think there are some rules which come from the past militarism. For example, we train pupils hard to keep group harmony. When I visited New Zealand following a school-visiting programme, I felt they run a lesson very freely. They concentrated on enjoyment of exercises. But it’s very difficult to copy their methods in Japan. Something is very different. Even pupils seem to feel such free method is very weird. Pupils are waiting for teachers’ command, and don’t try to exercise until teachers tell them. It’s so hard to adapt a method which succeed in one country to others, although the aim is completely same, to let pupils exercise with pleasure and to provide a chance learning about physical

activities which can be enjoyed in pupils' adult life.”

The above remark illustrates that there is a cultural influence in the teaching methods. This suggests that education for the global age should reflect local and cultural differences, even if its aims can be universal and global.

2.2.4. ASSESSMENT METHODS

Question 5. Do you think the methods of assessment in secondary schools should change to better prepare pupils for the global age?

Teachers' views for this question are basically the same as the students' views which were collected by questionnaire. Most teachers answer that the assessment methods are the most difficult issue in secondary school education. Moreover, although most teachers admit that there is a limit to the evaluation of pupils' ability by written examinations, they believe there is no choice. The following quotations represent this view.

“I don't like the present assessment methods but there are no other choices but the written examination, which I don't feel is the best way.”

“Pupils' attitude can't be measured numerically. In the end, a result from written exams is the only way to evaluate pupils.”

“In the end, evaluating result of written exams is the best and fairest way.”

“Humanistic education is very important, but it's so hard to evaluate.”

“I think we should admit there are no other assessment methods but written exams, for there are no standards in other methods.”

On the other hand, there is a teacher who insists that there is a possibility to use

different assessment methods from written examinations if teachers and pupils can have a better relationship. The following opinion is from one teacher, who has taught for 35 years.

“Even if there are no standardised examinations (except for written examinations), I think there are other effective methods to assess pupils, and I don’t think it’s harder work for teachers. I can see pupils’ attitudes during a lesson. The most important point is, a better communication between teachers and pupils.”

In addition, some teachers mention that they are able to see the progress of each pupil more carefully if the size of a class is reduced. One teacher, who taught mathematics for 25 years, insists as follows:

“The size of a class should be smaller. If the number of one class will be decreased to 24, well, 24 is very convenient number mathematically, we would be able to look at individual achievement more carefully.”

Since a similar opinion to this can be found in findings from students (see section 1.4.2), it is possible to say that the size of a class does really matter for both teachers and pupils and it should be considered carefully in education for the global age. In fact, the Ministry of Education in Japan is attempting to increase the number of teachers (Izukura, 2000a). Nikkyoso (the Japan Teachers’ Union) also implies that the limit of the number of pupils in one class should be under 30 (Izukura, 2000c).

Among various opinions about assessment methods, one teacher mentions that currently they are in a chaotic situation in trying to decide assessment methods. Another teacher says that assessment methods will change but it will take time. These findings illustrate that assessment methods are the most difficult and controversial issue in school education in Japan.

SECTION 2.3. TEACHERS' VIEWS ABOUT CURRENT EXAMINATION SYSTEM

The key research question about teachers' views about current examination system is asked in question 6 as follows.

Question 6: Do you think an entrance examination to university should change? If so, how?

As with findings about this key research question from students, teachers also mention changes in entrance examinations and in university. The following opinion is representative of most teachers' views.

“I think the entrance examinations should be more flexible. And universities in Japan should take students who really desire to study academic subjects. Like American universities, they can make an entrance examination easier and assessment should be more difficult and have higher standards for students to pass. Then all students will study hard in universities, and as a result, the level of higher education will be much higher and more academic. I think many reforms in university level will be required.”

In the above remarks, there are many issues which are also mentioned by students in a questionnaire (see section 1.5). In a discussion of flexibility in entrance examinations, an essay-format examination and an oral examination are mentioned as alternatives for the current written examination. This is also the same as students' opinions, which are described in figure 71, in section 1.5.

On the other hand, there are a few negative opinions about changing the current examination system. The following opinion is from a teacher who has just started her teaching career.

“I think we should admit the current entrance examination is a very fair method in a way. Although there are many alternatives, I think students can pass written exams if they study hard. By studying hard for tough exams, pupils not only learn academic subjects but also develop mental strength. I don't think the current entrance examination has to change.”

Meanwhile, there is another opinion which describes an issue which is caused by the current entrance examination. One teacher, who is a head of Japanese language teaching in upper secondary school and has taught for 30 years shows her concern as follows:

“Pupils who are good at memorising can easily pass the current exams. And in some cases, only two subjects are required at the exams. It's fine but it may lead pupils to study what they need or are interested in only, and in the end it is very hard to have well balanced and broader knowledge. As a result, pupils only try to mark high scores at the exams, for example, they can mark high scores on the history of literature without reading any literatures at all.”

The above two remarks represent both advantages and disadvantages of the current entrance examinations. They also show how controversial the current examination system is.

On the other hand, there are some opinions which reflect social and cultural aspect of Japanese education. As some students have frequently mentioned, some teachers comment that their society, which sets a great value on the academic career, may not change no matter what they try. In addition, there is another opinion which also reflects social aspects in a different way as follows.

“The entrance examinations will change, without any efforts. In the end, all pupils will enter universities thanks to the decreasing young population. I think universities are now struggling with the difficult situation, and will try anything,

including the entrance exams, in order to survive.”

Although this remark seems rather optimistic, it describes the current situation in Japanese education.

In conclusion, a discussion of entrance examinations includes social and cultural aspects and issues in higher education, and teachers’ opinions are basically the same as students’ opinions which are described in section 1.5.

SECTION 2.4. TEACHERS’ VIEWS ABOUT PROBLEMS OF IMPLEMENTING EDUCATION FOR THE GLOBAL AGE AT SECONDARY SCHOOL

Question 7. What kind of problems do you think will occur, if changes in the above questions are to be implemented?

For this question, teachers provided various opinions. First, there are a few teachers who are concerned with teachers’ work, which will be harder for them to cope with. Similar opinions to this are also found from students (see section 1.4.1).

Secondly, one teacher mentions that there will be many teachers who will reject implementing changes in secondary school in order to keep their status. This reflects students’ opinions, which are described in section 1.4.1. Those teachers who may reject change in secondary school education can be included in the so-called “conservatives”, which are described by some students in section 1.4.5.

Above all, the most frequently observed comments are about entrance examinations to university. In this case, opinions about examiners’ abilities are frequently found. The following two cases are typical opinions of most teachers.

“People who deal with examinations will think it’s very hard. Those people

have to have enough skills to see clearly each pupil's ability.”

“Oral exams, such as interviews and discussions will not be as objective as written exams. So, the examiners' ability to judge as objectively as possible becomes the central issue.”

It is interesting to note that no teachers mention problems in the assessment methods in secondary school nor teachers' ability, as many students have noted. Although it is impossible to say that 'examiners' in the above remarks can be the same as 'teachers', it is clear that more training for those who judge pupils' ability at examinations is needed.

On the other hand, there are a few opinions which reflect social demands for education. In the same way as the students (see section 1.4.5), teachers also feel some pressure from parents' expectation as follows.

“Although there are a few parents who want to give their children high quality education, most parents want to make their children enter prestigious universities and they are not very concerned with quality of education. The gap between those parents' various expectations and what we can do is a very sensitive and difficult issue.”

In addition, one opinion on companies is as follows:

“In the end, getting a good job is a target for pupils. So examiners at companies also should change their points of view. For example, they should not employ simply those who graduate from prestigious universities. If they check students' personality rather than their academic career, the examination hell will be decreased. Because pupils don't need to compete to enter prestigious universities if people put a value on individual personality and ability rather than academic career.”

In conclusion, teachers' comments about problems are examiners' ability, teachers'

harder task and attitudes and social demands. Most of these are also mentioned by students. In the case of Japan, these possible problems should be considered in education for the global age.

SECTION 2.5. TEACHERS' VIEWS ABOUT HOW SECONDARY SCHOOLS SHOULD CHANGE IN THE GLOBAL AGE

The last question asks teachers about their views about how secondary schools should change in the global age.

Question 8. Finally, please let me know if there is anything else, which should change in education for secondary schools.

First, the most frequently mentioned opinion is that pupils will need more training in logical thinking and expressing themselves. This is about teaching and learning methods.

In addition, many teachers feel pupils should have social skills and broader knowledge about the world rather than academic knowledge for entrance examinations to university. The following comment describes Japanese pupils as follows:

“I think pupils at secondary school level regard their studies as a preparation for entrance examinations to university. But I feel pupils should be taught basic skills to survive in society as independent adults. I feel pupils rarely recognise the current issues happening in the world, and rarely learn a common view. I think pupils should be taught about such issues, rather than prepare for exams.”

As for pupils' social skills, comments about parents are often found as follows.

“Home training to live as a member of a society is very important, but few parents understand it. I think it should be the parents’ task, and schools are only the place for academic studies. Some parents expect schools too much.”

“In secondary school, pupils are no longer kids, and they have to prepare to adjust themselves to be adults in society. Behavioural training should be done at home, but parents who are in their 30s are less aware of this. Now school has to train pupils in behaviour, social skills, on behalf of such parents. I think it’s fine, but school should have more rights to refuse parents’ excessive expectations. School and parents should communicate with each other more often.”

Similar opinions to the above remarks have also been found from students (see section 1.6). According to both teachers’ and pupils’ opinions, parents’ involvement in school education will be needed.

In fact, there is a report that shows parents also feel their role in education is significant. In a report of the Educational Research Institute in Japan (see section 1.6.), 66% of parents who have responded to the questionnaire answered that not only teachers but also parents and community involvement in education should be emphasized.

In addition, there is an opinion which describes some social aspects of Japan, and suggests what schools should do in the global age.

“In a global age, it will be an information oriented society. We should let pupils think what kinds of information is valid and important, rather than teach a lot of knowledge. Otherwise, pupils will get lost in heaps of information. Apart from that, I feel Japanese people are not concerned with world wide issues very much. We have to be aware that we can’t survive unless dealing with issues happening outside Japan. We teachers should teach that, if one country has a war, it has a strong influence on our economy and everyday life. Equalising of employment between men and women comes from human rights issues, but young people even don’t know it! Even though schools try to teach current issues, pupils surprisingly are not keen on them at all. Nevertheless, I think school should be the place to teach such important and basic knowledge about living in society. I feel our knowledge about

democracy is very low in Japan, and learning about it will be very important.”

Meanwhile, there are a few comments about the current school system in Japan, as one student noted in a questionnaire (see section 1.6). The following teacher criticizes an inflexible system of schools in Japan and describes Japanese secondary school.

“I think school should receive more overseas and disabled pupils. Then all pupils would have lots of chances to meet various people in the world. Too much standardisation. And too many “standard” pupils. Apart from that, if one pupil fails one subject, he or she must stop out for a year. It’s absolutely a waste of time. Some pupils can’t study hard, for physical or mental reasons. I think it’s better to let pupils learn their favourite subjects rather than force them to learn subjects they find hard. In this respect, flexibility in choosing subjects has an advantage. If one pupil leaves school, she or he can’t return to any schools. In this respect, we should consider a more flexible system.”

As for other comments, there are some teachers who are very concerned with the standard of subjects, especially science and mathematics, which is getting lower. This type of opinion reflects a tendency of Japanese education and students who have negative attitudes to these subjects, as mentioned in section 1.2.

In addition, one teacher explains a practical aspect of ICT in schools in Japan. The following striking comment describes the current situation of ICT in Japanese schools, and illustrates a gap between theory and practice.

“In schools we have many computers, enough to have a lesson. But it is very expensive to buy software! We can’t copy it illegally. Added to this, we can’t keep experts with special computer skills in schools for lack of funds. Then, some teachers have to sacrifice their free time to use computers. It’s too demanding to use computers, you know. At the moment, we literally can’t even teach how to use computers to pupils. For example, the curriculum guidelines by the Ministry of Education say that teachers have to use computers to view pictures. But we can’t afford to buy software for that! We are trying hard, but honestly, it’s impossible to use computers as the

government suggests. I know some teachers have been dead for excessive work dealing with computers. Well, I think the most important issue for teachers is to take care of each pupil as long as possible. I think the present situation is far from admitting the government report that suggests widespread computers in schools.”

The above remark also indicates there is a problem in funds, in order to introduce ICT in schools. Although demands for skills to use computers will be increased in the global age, it seems very hard in practice especially in school education.

Lastly, many teachers mention that humanistic education is the central issue of secondary school education. The following comment represents this type of opinion.

“I think making harmony and admitting difference are very important. Wherever we go, whenever we live, the most important issue is individual humanity.”

In conclusion, teachers’ opinions reflect social aspects and practical issues in secondary schools in Japan. Some of them are also found in students’ opinions which are described in section 1.6.

CHAPTER 6 PRESENTATION AND ANALYSIS OF FINDINGS FROM ENGLISH STUDENTS AND TEACHERS

The aim of this chapter is to describe the findings and analysis of the research conducted in England. As previously mentioned, there were six groups targeted as a source of this research as follows:

Group A: English students at university undertaking a PGCE course.

Group B: English students at university undertaking a first degree.

Group C: Japanese students at university undertaking a first degree in teacher training.

Group D: Japanese students at university undertaking a first degree.

Group E: Japanese secondary school teachers.

Group F: English secondary school teachers.

In the case of England, the questionnaire was administered to groups A and B from January to June 2000, and interviews were conducted with group F from March to July 2000. In the same way as chapter 5, this chapter is divided into two sections to clarify findings from the English samples.

SECTION 1. PRESENTATION AND ANALYSIS OF QUESTIONNAIRE DATA FROM ENGLISH STUDENTS

Section 1 shows findings from the questionnaire which was administered to groups A and B. In the same way as the Japanese investigation, both quantitative and qualitative analyses are used in accordance with question types. In addition, diagrams showing percentage frequencies are also provided for further clarification.

Abbreviations for the name of university and groups are used as follows:

UY for the University of York

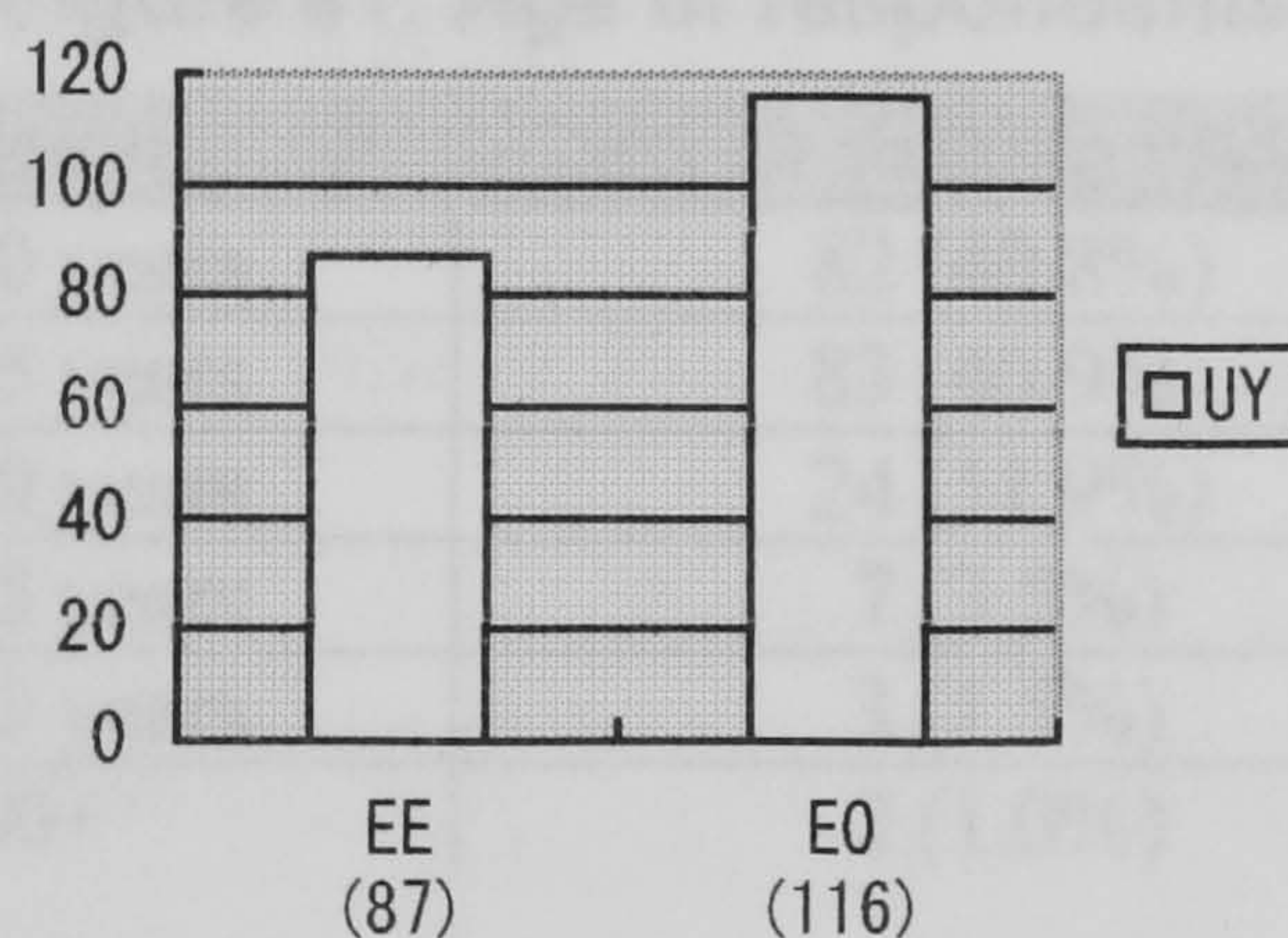
EE for the English students undertaking a PGCE course (group A).

EO for the English students undertaking a first degree (group B).

SECTION 1.1. BACKGROUND INFORMATION

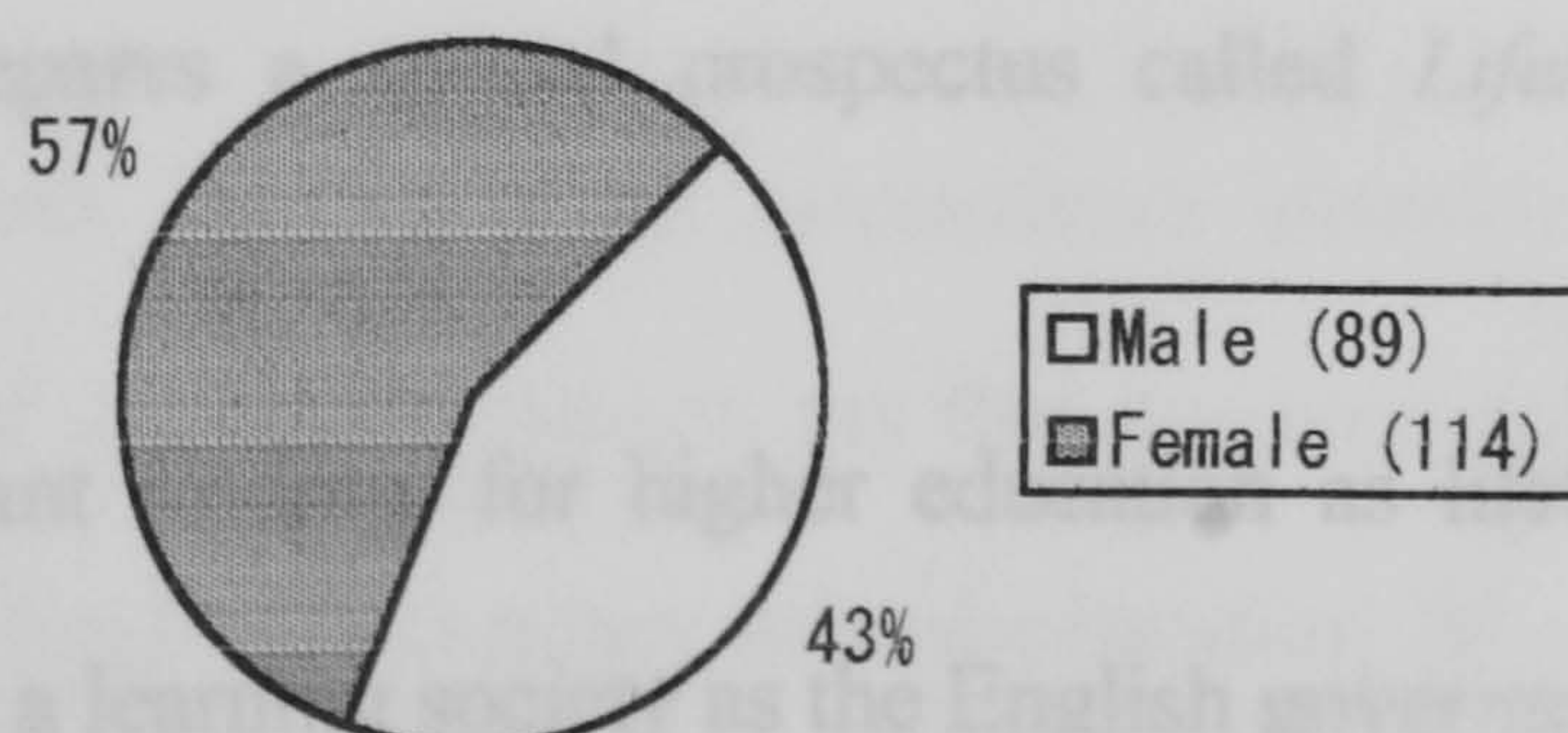
First of all, the total respondent population of English students (groups A and B) is 203, of which 87 are from EE and 116 are from EO (see figure 77).

Figure 79. The total respondent population



The proportions between the sexes of the English respondents is quite similar to the Japanese as shown in chapter 5.

Figure 80: Sex of respondents



As shown here, the respondents consist of approximately 60% female and 40% male students. This is quite an interesting finding, since the majority of the respondents in the department of Physics and Mathematics, where the researcher has administered the questionnaire, consist of male students. Nevertheless, it is obvious that more female than male students have replied to the questionnaire in total. As we have already seen from the Japanese findings, that there is a relationship between sex and answers for question 3 (see chapter 5, section 1.2), it is also interesting to note that there might be a relationship between sex and response rates.

For further background information, the distribution of the age group of the English respondents is shown as follows:

Figure 81: Age of respondents

Age groups	English students (100.0%)
18-20 years	82 (40.8%)
21-25 years	83 (40.9%)
26-30 years	24 (11.9%)
31-35 years	7 (3.5%)
36-40 years	3 (1.5%)
40+	2 (1.0%)

As shown in the above figure, the range of ages is wide. In fact, it is much wider than the Japanese sample, which is shown in chapter 5, section 1.1.

This figure provides at least two indications. First, it may show that the government's policy to emphasise lifelong learning for adults is successful in terms of higher education. In fact, York University encourages 'older adults' to involve themselves in some courses and prepares a special prospectus called *Lifelong Learning at the University of York*.

This is a very important finding, for higher education as lifelong learning is quite significant in providing a learning society as the English government emphasises, and it is also one of the key aspects of education for the global age, as explained in chapter 2.

Secondly, it shows a cultural difference between England and Japan. It seems that more English than Japanese universities provide a variety of opportunities for mature people to enter. In fact, English universities appraise not only the results of A-levels but also other qualifications of individuals (see chapter 1, section 2.2). Although detailed comparisons between Japanese and English findings will be discussed later, an obvious difference between them is the age group of the respondents.

In the case of the English questionnaire, another piece of information, which is about the place (country) where the respondents attended secondary school, has been collected. One reason is that some different regions carry out secondary school education under different policies even within the UK, and this might affect the answers of the respondents. Accordingly, eight choices are presented for the respondents to tick and the following figure illustrates the findings.

Figure 82: Country where the respondents attended secondary school

Country	Frequency and percent
England	163 (81.1%)
Wales	10 (5.0%)
Scotland	4 (2.0%)
Northern Ireland	2 (1.0%)
Eire	0 (0%)
France	3 (1.5%)
Germany	1 (0.5%)
Other	18 (9.0%)

The above figure shows 86.1% of all respondents attended secondary school in England and Wales, and it is appropriate to say that the majority of the respondents for this research represent English secondary school education. Meanwhile, there are 11% of students who received secondary school education outside the UK, and it will be

very interesting to take notice of their opinions through the questionnaire.

Finally, the following figure shows the curriculum areas of the respondents.

Figure 83: The curriculum area

EE (UY)		EO (UY)	
English	16	Physics	45
History	19	Philosophy	10
Mathematics	12	Mathematics	9
Modern Languages	17	English and related	52
Science	23	Literature	

As already mentioned in chapter 4, the curriculum area of group EO is carefully chosen in order to clarify a comparison with JO.

What should be noted here is that all data were collected only in one university in England. In order to make the study manageable in the time frame, four universities in Japan and one in England were selected for the research. These numbers are in rough proportion to the actual numbers of universities: 604 in Japan and 87 in England (DfEE, 1999b). The universities selected are not intended to be representative of all the universities in either country. As has been noted previously, Japan has national, public and private universities and English universities fall into such informed classifications as 'Oxbridge', 'Redbrick', the 'new universities' (former polytechnics) and so on.

In conclusion, a large number of the total respondents and background information from other sources verify that English samples collected for this study represent the views of all English students at university. In the following sub-sections, findings for key research questions are described.

SECTION 1.2. VIEWS ABOUT STUDENTS' EDUCATION AT SECONDARY SCHOOL

In the same way as chapter 5, section 1.2, findings relevant to a key question about students' views about their secondary school education are described. They are presented with diagrams showing percentage frequencies of answers. In order to examine the relationship between answers and the respondents' background, ANOVA and Chi-square tests are used for quantitative analysis. These tests are used in the same manner as in the Japanese research, and the following ANOVA tests are implemented:

A: Curriculum area (ANOVA.A)

B: Age (ANOVA.B)

C: Sex (ANOVA.C)

D: Country where the respondents' attend secondary school (ANOVA.D)

E: Courses: difference between EE and EO (ANOVA.E)

The only test which differs from the Japanese research is ANOVA.D. This is because only one English university has been chosen as a source of data, and the questionnaire has asked in which country the respondents attended secondary school. The detailed reason for this minor difference between the Japanese and English questionnaires has been described in chapter 4, section 2.2.2. In the same way as chapter 5, the main concern in this chapter is the difference between EE and EO, and results of ANOVA.E. We begin by looking at question 1.

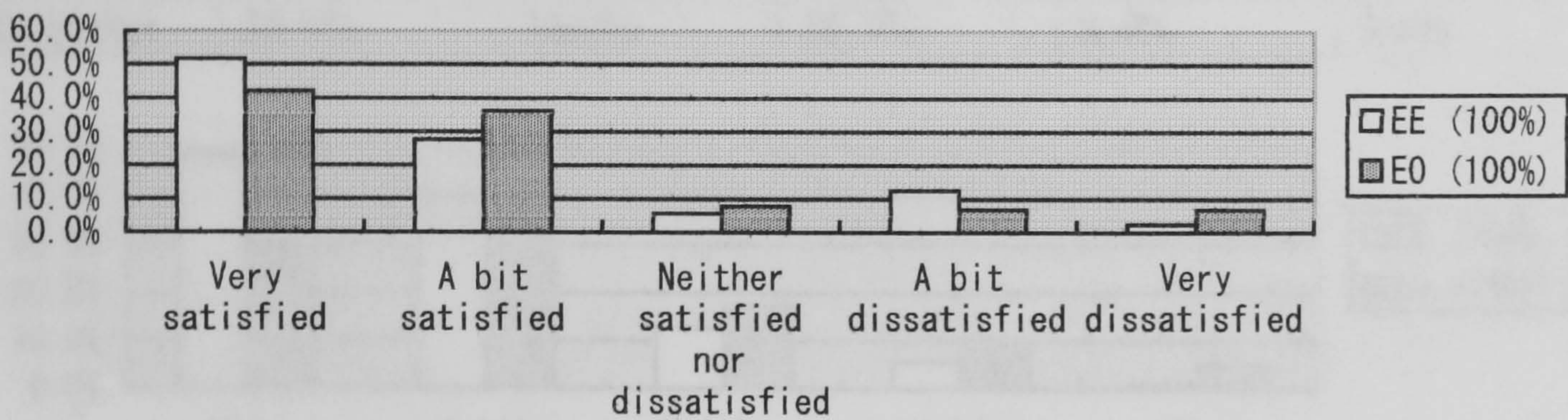
Question 1. How satisfied are you now with the education you received when you were a pupil in secondary school?

The following figure is the finding from English students, showing percentage

frequencies and a graph of findings from EE and EO.

Figure 84. Question 1.

	Very satisfied	A bit satisfied	Neither satisfied nor dissatisfied	A bit dissatisfied	Very dissatisfied
EE (100%)	51.7%	27.6%	5.7%	12.6%	2.3%
EO (100%)	42.2%	36.2%	7.8%	6.9%	6.9%
Altogether	46.3%	32.5%	6.9%	9.4%	4.9%



Findings & Analysis

It is obvious that the majority of the English students (approximately 80%) are satisfied with their received secondary school education regardless of the degree.

It may be interesting to note that a relationship between answers and the respondents' age is found by a statistical test (ANOVA.B: $F=3.934$, $P<0.05$). Although we have to be careful in terms of validity of this outcome because there are only two 40+ students in the research, according to the test, answers between age group 18 to 25 and 40+ are significantly different. To sum up, most students between age 18 to 25 felt a great deal of satisfaction with their secondary school education, while students over 40 years old felt almost the opposite. Although there could be several reasons for this, one possible hypothesis is that negative feelings about received secondary education could be a strong motivation for adults to return to education.

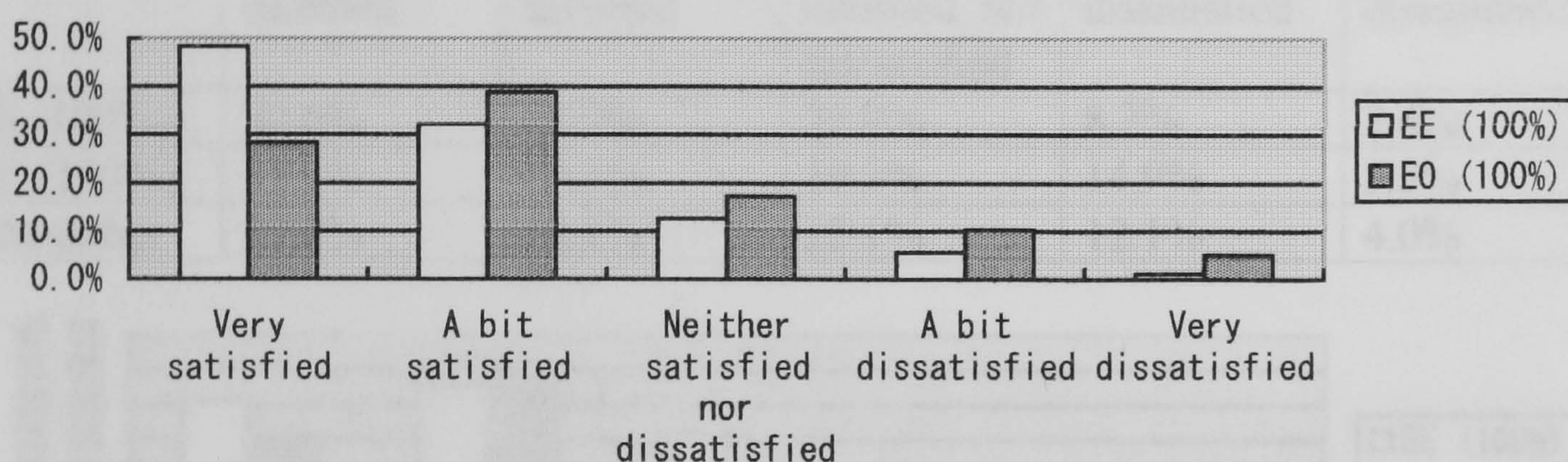
Question 2. How satisfied were you, in general, with the following issues when you were a pupil in secondary school?

Figures 85-91

Q.2.1. The content of school subjects

Figure 85.

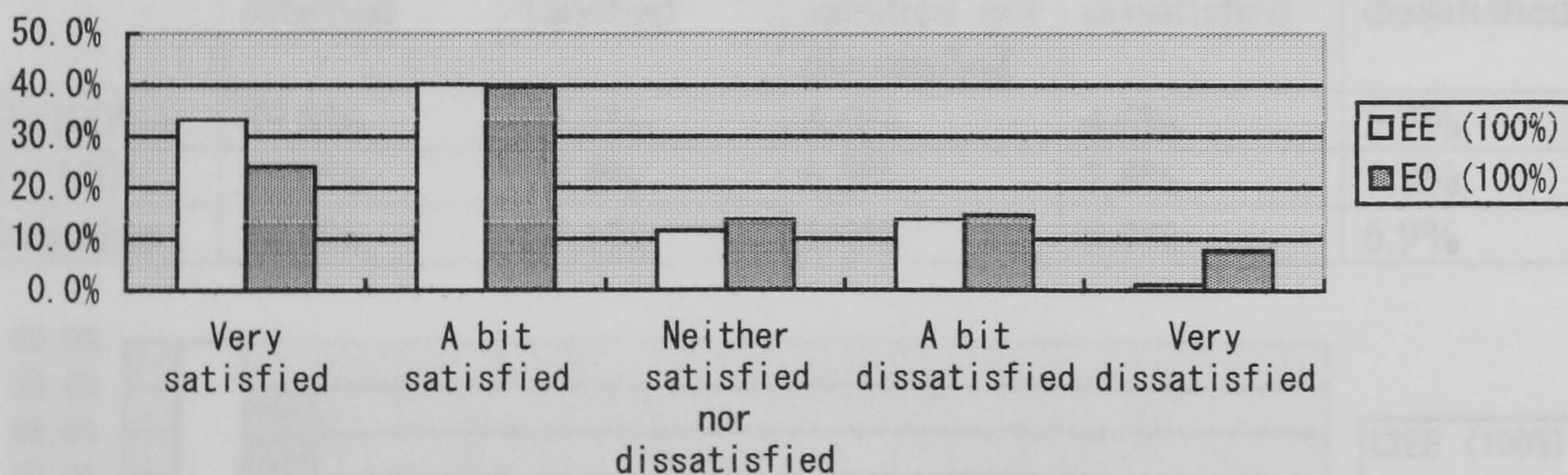
	Very satisfied	A bit satisfied	Neither satisfied nor dissatisfied	A bit dissatisfied	Very dissatisfied
EE (100%)	48.3%	32.2%	12.6%	5.7%	1.1%
EO (100%)	28.4%	38.8%	17.2%	10.3%	5.2%
Altogether	36.9%	36.0%	15.3%	8.4%	3.4%



Q.2.2. Teaching methods

Figure 86.

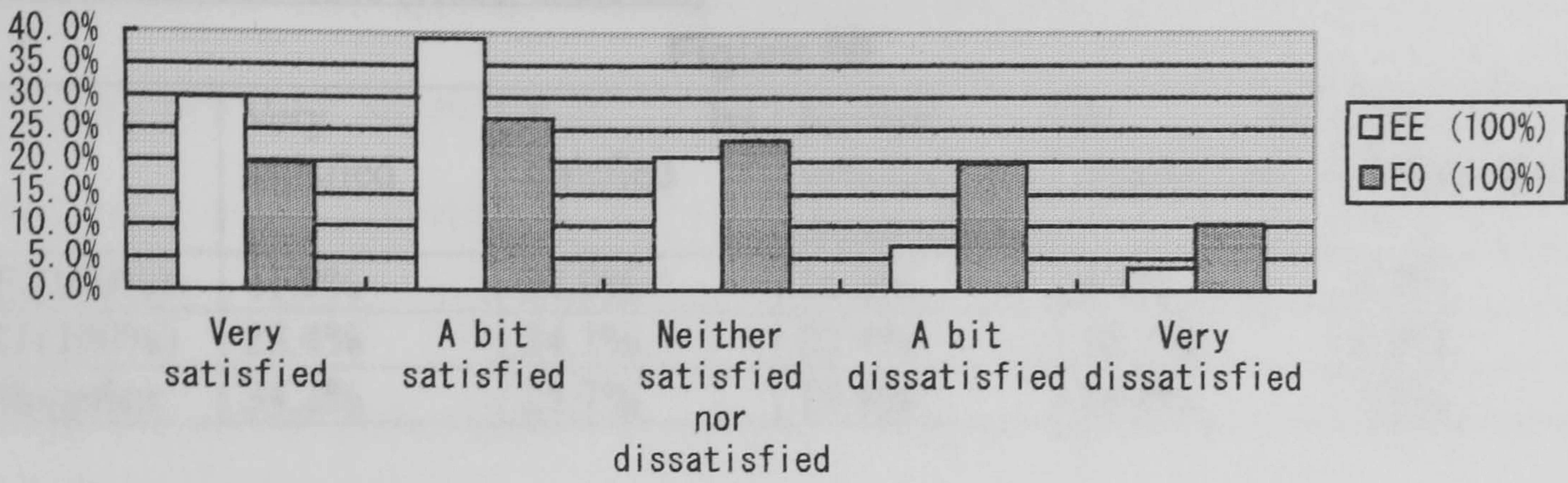
	Very satisfied	A bit satisfied	Neither satisfied nor dissatisfied	A bit dissatisfied	Very dissatisfied
EE (100%)	33.3%	40.2%	11.5%	13.8%	1.1%
EO (100%)	24.1%	39.7%	13.8%	14.7%	7.8%
Altogether	28.1%	39.9%	12.8%	14.3%	4.9%



Q.2.3. Pace of learning in each subject

Figure 87.

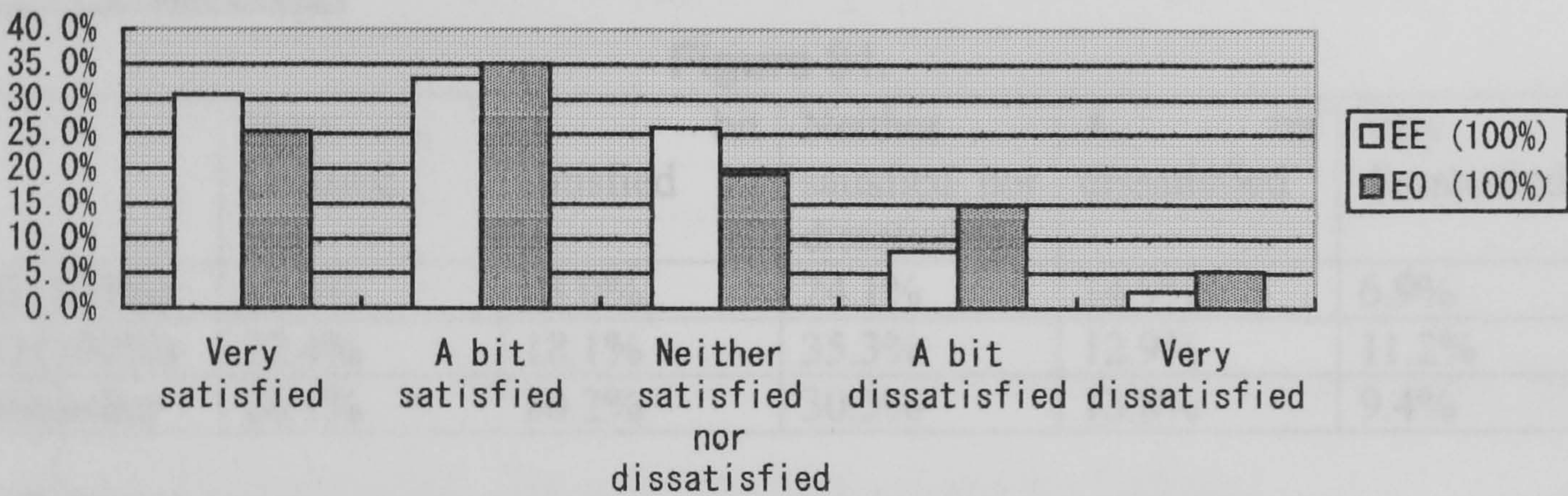
	Very satisfied	A bit satisfied	Neither satisfied nor dissatisfied	A bit dissatisfied	Very dissatisfied
EE (100%)	29.9%	39.1%	20.7%	6.9%	3.4%
EO (100%)	19.8%	26.7%	23.3%	19.8%	10.3%
Altogether	24.1%	32.0%	22.2%	14.3%	7.4%



Q.2.4. Methods of assessment

Figure 88.

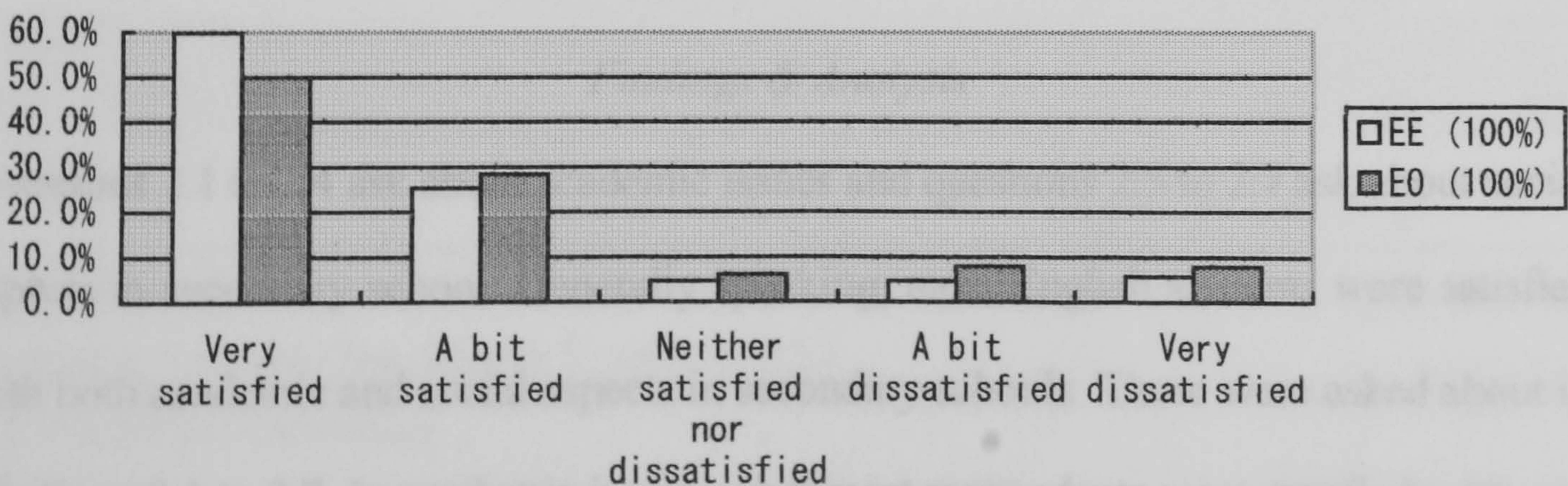
	Very satisfied	A bit satisfied	Neither satisfied nor dissatisfied	A bit dissatisfied	Very dissatisfied
EE (100%)	30.6%	32.9%	25.9%	8.2%	2.4%
EO (100%)	25.4%	35.1%	19.3%	14.9%	5.3%
Altogether	27.6%	34.2%	22.1%	12.1%	4.0%



Q.2.5. Relationships with school friends.

Figure 89.

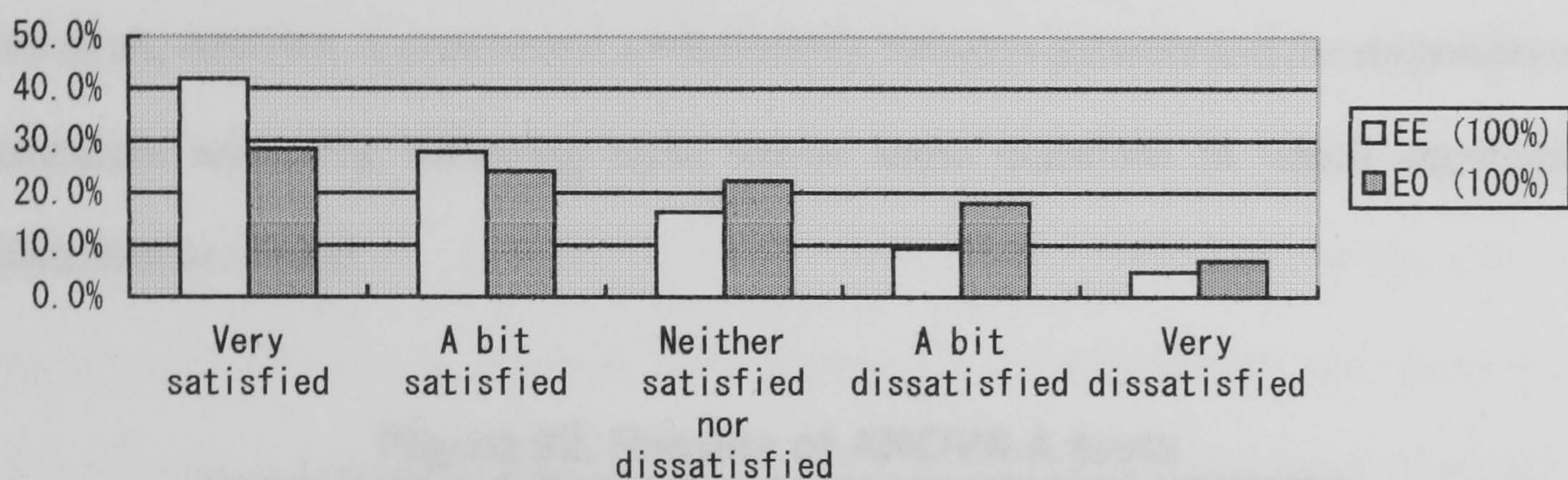
	Very satisfied	A bit satisfied	Neither satisfied nor dissatisfied	A bit dissatisfied	Very dissatisfied
EE (100%)	59.8%	25.3%	4.6%	4.6%	5.7%
EO (100%)	50.0%	28.4%	6.0%	7.8%	7.8%
Altogether	54.2%	27.1%	5.4%	6.4%	6.9%



Q.2.6. Social activities (clubs, societies)

Figure 90.

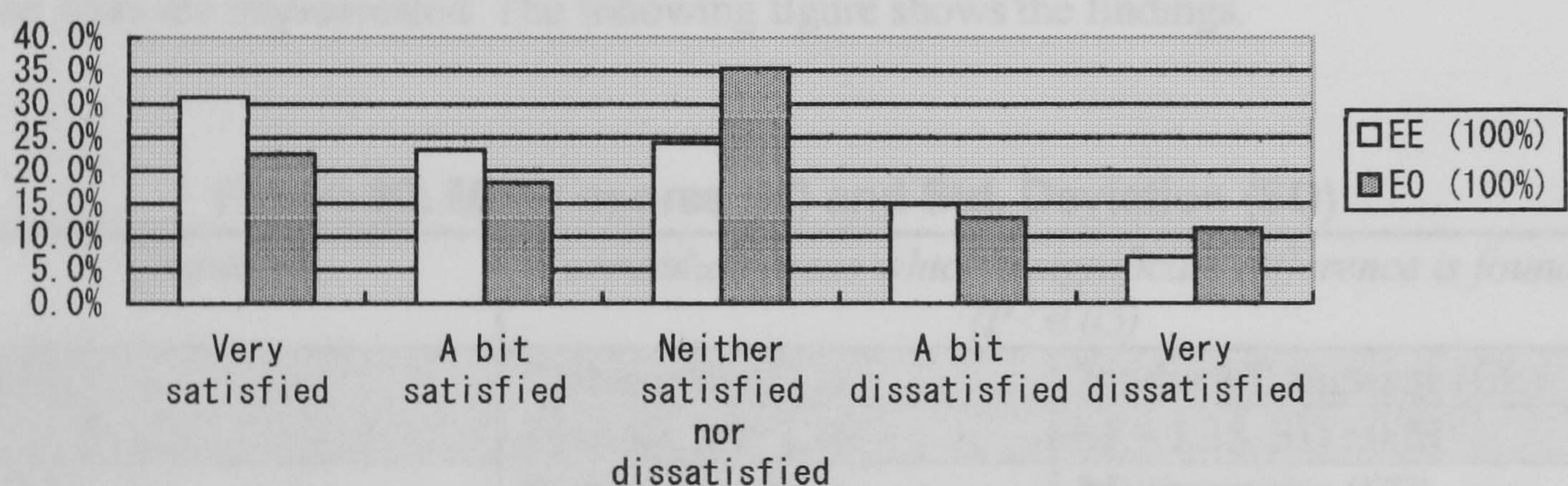
	Very satisfied	A bit satisfied	Neither satisfied nor dissatisfied	A bit dissatisfied	Very dissatisfied
EE (100%)	41.9%	27.9%	16.3%	9.3%	4.7%
EO (100%)	28.4%	24.1%	22.4%	18.1%	6.9%
Altogether	34.2%	25.7%	19.8%	14.4%	5.9%



Q.2.7. School events

Figure 91.

	Very satisfied	A bit satisfied	Neither satisfied nor dissatisfied	A bit dissatisfied	Very dissatisfied
EE (100%)	31.0%	23.0%	24.1%	14.9%	6.9%
EO (100%)	22.4%	18.1%	35.3%	12.9%	11.2%
Altogether	26.1%	20.2%	30.5%	13.8%	9.4%



Findings & Analysis

Questions 2.1 to 2.4 ask about academic issues and questions 2.5 to 2.7 ask about social aspects in secondary school. Generally speaking, most English students were satisfied with both academic and social aspects in secondary schools. These were asked about in questions 2.1 to 2.7. In academic issues, what most respondents were satisfied with was the contents of school subjects (72.9%, see question 2.1). In social aspects, 81.3% of

the respondents were satisfied with their relationships with school friends (see figure 89). Although there are no issues which the respondents were noticeably dissatisfied with, many students seemed not to be concerned with school events, the subject of question 2.7 (see figure 91).

In terms of comparison, several interesting findings are suggested by statistical tests. First of all, ANOVA.A tests reveal a relationship between answers and the respondents' curriculum area. The following table shows some questions in which significant differences are found.

Figure 92. Results of ANOVA.A tests

<i>Questions</i>	<i>ANOVA.A</i>
Question 2.1	F=1.55 P<0.05
Question 2.2.	F=2.81 P<0.05
Question 2.3	F=2.96 P<0.05
Question 2.6	F=2.08 P<0.05

Furthermore, in order to find if there are differences between curriculum areas, Post Hoc Tests are implemented. The following figure shows the findings.

Figure 93. Mean scores (M) and Std. Deviation (SD)

<i>Questions</i>	<i>Curriculum areas which a significant difference is found (P<0.05)</i>	
Q.2.1	Philosophy (EO)	Modern Language (EE)
	M=2.90, SD=1.19	M = 1.35, SD =0.61
Q.2.2	Philosophy (EO)	Mathematics (EE)
	M=3.30, SD=1.42	M=1.75, SD=0.62
Q.2.3	Philosophy (EO)	English (EE)
	M=3.40, SD=1.17	M=1.81, SD=0.91
Q.2.6	Philosophy (EO)	English (EE)
	M=3.50, SD=0.97	M=1.80, SD=1.08

M = Mean score. (Answers for questions which give five numerical responses are divided in 5 scores. See chapter 5, section 1.2.)

SD = Standard Deviation.

According to figure 93, students undertaking Philosophy always answer rather

dissatisfied compared with other students.

There are other significant differences in ANOVA tests. In question 2.1, students in age group in 40+ answered that they were not satisfied with the content of school subjects, while students in other age groups answered the opposite (ANOVA.B. $F=2.46$, $P<0.05$).

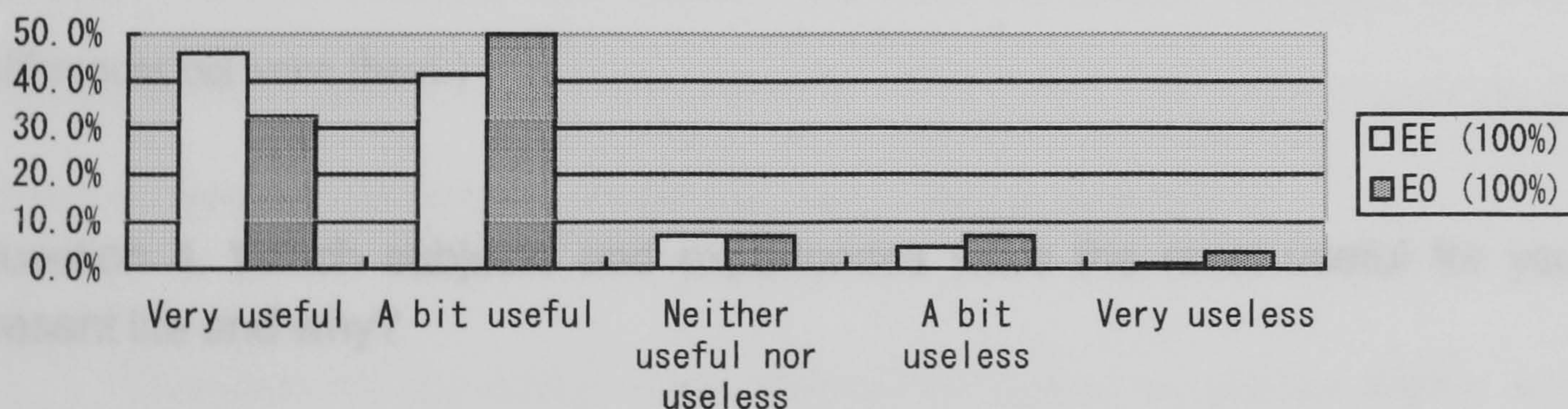
This is a similar result to question 1.

In answers to question 2.7, another significant difference is found in terms of the respondents' sex. According to their answers, more female than male students feel satisfaction with school events (ANOVA.C. $F=8.82$, $P<0.05$). This finding will be interesting to note here, although it is impossible to hypothesise that there is a relationship between this finding and the fact that more female than male students have replied to this questionnaire, as has been described in the previous section.

Question 3. How useful, in general, is what you studied and experienced as a pupil in secondary school, for your present life?

Figure 94. Results

	Very useful	A bit useful	Neither useful nor useless	A bit useless	Very useless
EE (100%)	46.0%	41.4%	6.9%	4.6%	1.1%
EO (100%)	32.5%	50.0%	7.0%	7.0%	3.5%
Altogether	38.3%	46.3%	7.0%	6.0%	2.5%



The above figure shows that most students in both group EE and EO (approximately 85% of the respondents) feel that what they have studied and experienced is useful.

In question 3, statistical tests reveal that there are no significant differences between answers and the respondents' background except for the curriculum area. According to

a statistical test, students undertaking Philosophy (EO) answer in significantly different ways from other students ($F=3.65$, $P<0.05$). To sum up, students studying Philosophy answer rather negatively in this question and the mean score is 3.20, while other students have mean scores in the range from 1.68 to 1.95. This might relate to another finding which has been shown in figure 93, in question 2.

Questions 4 and 5 ask for more detailed information following on from question 3, and the respondents provide their critical and objective views about their secondary school education.

What should be mentioned here is that the way of presenting figures in questions 4 and 5 is different from the Japanese research. As already examined in chapter 5, section 1.2, answers from the Japanese respondents show no significant differences in accordance with students' background. Hence, it is reasonable to generalise findings in the same way as they are in the previous chapter. However, outcomes from the English respondents are recognisably influenced by their background, especially by their curriculum area. In order to clarify findings, the researcher concludes that figures showing findings from the English respondents should be presented in a different manner from the Japanese presentation. (This arrangement will not cause problems in order to compare results from the two countries, since it may already be one of the differences between them.)

Question 4. Which subjects and experiences were the most useful for your present life and why?

Figure 95 shows findings from the English students, according to their curriculum area. It includes the three subjects described as most useful, and experiences collected from all English respondents, in order to make comparisons with Japanese findings.

Figure 95. The 3 of most useful subjects and experiences

EE (curriculum area)					
	Maths	Science	English	History	ML*
1	Maths (11)	Science (10)	English (11)	History (11)	Language learning (12)
2	Science (4)	Extra-curricular activities (5)	History (3)	All skills (6)	English (5)
3	English (3)	English (5)	Languages (2)	English (4)	Maths (3)
EO (curriculum area)					
	Maths	Physics	English and related literature	Philosophy	
1	Maths (5)	Maths (25)	English (24)	Maths (5)	
2	English (3)	Physics (18)	Social experiences (11)		English (2)
3	Science (1)	Science (9)	History (10)		Philosophy (3)
Altogether (EE + EO)					
1	Maths (64)				
2	English (63)				
3	Science (61)				
4	Social experiences including school events, PSE programme, and extra –curricular activities. (48)				
5	Music (10)				

* = Modern Languages.

Numbers in round brackets indicate the number of the respondents.

Analysis

According to the above figure, it is obvious that subjects which students mention as useful are strongly related to their present curriculum area at the University. Although there are various reasons for each respondent to select a particular subject as useful, the following quotations are typical reasons for many English respondents.

“Obviously Physics [and/or other subjects] has helped my physics [and/or other subjects] degree course.”

“I am studying it now.”

Meanwhile, Music is also frequently mentioned by students as one of the useful subjects. However, in this case, students note that it is useful not for a degree but for

personal development. In a similar way, Drama is also mentioned by eight students as helping them develop self-confidence and so on.

Apart from academic subjects, there are various kinds of social experiences which are mentioned by students as useful. These experiences range widely, such as extra-curricular activities (8), work experiences (5), school events (5), and Duke of Edinburgh's Award Scheme (5), and so on. In any case, most students cite those experiences as useful because they have greatly helped students' personal and social development, such as by working in a group and developing self-confidence. Above all, relationships with friends and teachers are the most frequently noted reason, regardless of students' curriculum area. The following remarks are typical examples:

“The time to talk to other students, friends and the form teacher was very important.”

“Interaction with other pupils and staff was probably most useful.”

“The most useful experiences were the relationships I developed and what I learnt from my teachers and friends.”

It is fair to say that these remarks are closely linked to a finding in question 2.5, figure 89, which asks about relationships with school friends.

In addition, there are a few comments which mention a particular subject teacher. Usually, this type of opinion is noted by students in group EE. For example, one student states that “there were certain teachers who inspired me to do well in certain subjects”. In the similar way as Japanese findings, this finding demonstrates that teacher-pupil relationships are very important to develop an attitude towards academic learning.

Finally, it is interesting to note a few comments from students who have unique backgrounds. One student, who has attended an international school outside the UK,

notes that the experience of moving country and meeting people is useful. Another student says learning languages is very useful for the following reason:

“I was born into a multicultural family, and this [learning languages] helped me enjoy many cultures, and pick the best of each. It also enables me to understand cultural differences, and see the world in a different light.”

Another student also comments about his experience:

“Living in a multicultural world, languages act as a barrier. Speaking three languages helps to get rid of those barriers.”

Although it is impossible for all pupils to have this type of unique experience, it suggests that emphasis on learning foreign languages, and probably school exchanges with other countries can be a great stimulus for pupils to learn about other cultures, which is one of the aims of education for the global age.

Question 5. Which subjects and experiences were the most useless for your present life and why?

Figure 96. The three of most useless subjects and experiences

EE (curriculum area)					
	Maths	Science	English	History	ML*
1	CDT (3)	Languages(11)	CDT (6)	None (5)	Science (12)
2	Art; RE;	RE (6)	Geography;	Maths (4)	RE; PSE (3)
3	Music (2)	Food Technology (2)	Science (3)	CDT (3)	
EO (curriculum area)					
	Maths	Physics	English and related literature	Philosophy	
1	Languages;	RE (9)	Science (12)	Science (3)	
2	CDT;	Languages (7)	Maths (10)	Art; History;	
3	Geography (2)	Art (5)	None (8)	RE (2)	
Altogether (EE + EO)					
1	Science (37)				
2	Languages (33)				
3	RE (30)				
4	CDT (21)				
5	Art (13)				

* = Modern Languages.

Numbers in round brackets indicate the number of the respondents.

Analysis

Figure 96 demonstrates a few interesting and important findings. First, when comparing the findings according to students' curriculum area, it seems clear that students undertaking scientific studies tend to choose Languages as a 'useless' subject.

Meanwhile, students in Art subjects see Science as useless subjects.

Secondly, five of the most useless subjects chosen by all English students in the above figure reflects some issues in education in England. For example, 18.2% of the English students chose Science as a useless subject (see figure 96). This matches a current tendency of English students to have negative attitudes to Science, as one of the teachers who contributed to this study mentions.

In addition, Languages are mentioned by 16.3% of the respondents as useless subjects.

This illustrates English students' lack of interest in learning foreign languages. One possible reason is that English is generally recognised as an international language

throughout the world. Moreover, English people may tacitly believe English is the most important language of all, as a few teachers mentioned in interviews. The above finding indicates that learning a foreign language could be a problematic task for English pupils in education for the global age.

Lastly, 14.8% of all respondents mention Religious Education as a useless subject. Although seven students picked it as the most useful subject in question 4, and a few students were very pleased to study it, several critical opinions about RE are found in question 5.

There are various reasons for students to choose RE as a not useful subject, and the following comments point out the disadvantages of RE in secondary school at the moment.

“I wasn’t taught enough about anything other than Christianity and it would have been far easier to understand other cultures and religions now if I’d had that basic knowledge.”

“RE was not broad enough. I feel I can only identify with a few religions.”

What these remarks reveal is that RE in secondary school in England is generally based on learning about Christianity.

As far as the researcher is concerned, the contents of RE taught in English schools might be enough, if pupils were only learning about one country and one culture. However, in the global age, learning about one specific religion might risk prejudice in many ways. Religion is a very significant and sensitive issue in many countries, since it is deeply relevant to the identity of a country and its culture. Misunderstandings between different religions have caused several wars between countries for centuries. On the whole, RE is a significant, deep, and controversial issue and it is impossible to discuss it in a few words. However, in terms of education for the global age, RE will need to be considered carefully and will be a key issue in the case of English education,

since it could be one of the methods of learning about other cultures and other people.

A Summary of Findings

Before moving on to the following questions, a summary of findings from questions 1 to 5 should be given here. Questions 1 to 5 are about one of the key questions: students' views about their education in secondary school.

The majority of English students (approximately 80%) are satisfied with both academic and social aspects of secondary school education. In addition, approximately 85% of the respondents also feel that what they have learnt and experienced is useful.

In the case of English students, the subjects which students mention as useful are strongly influenced by their background, especially by their curriculum area in the university. For example, students studying Mathematics answer 'Mathematics' as the most useful subject, while Modern Language students say learning languages is the most useful.

What students are satisfied with and feel are useful in secondary school, regardless of their background, are relationships with school friends and teachers, and is the same as the Japanese finding (see chapter 5, section 1.2). This finding may support the idea that social aspects at secondary school level strongly affect children in the period of adolescence. In addition, there are also some comments describing teachers as the main reason for pupils to pursue their study. This finding may suggest relationships between teachers and pupils could be one of the key elements for developing pupils' motivation to study.

On the other hand, the subjects most English students feel as useless in secondary school education are Science, Languages, and RE. This finding indicates at least three significant issues in English secondary school education and leads us to further study. First, it reflects the current tendency of English pupils to have negative attitudes

towards science. Secondly, it shows a difficulty in learning languages. One possible reason is, English is generally recognised as an international language all over the world so it would be reasonable for English pupils to consider learning other languages as less valuable. This could be one of the cultural issues in English education. Finally, some students suggest that RE in English schools is not broad enough, partly because it significantly relates to national identity, culture, and personal belief. As already noted, RE will need to be considered carefully and will be a key issue in the case of English education, since it could be one of the methods to learn about other cultures and other people.

In conclusion, questions 1 to 5 provide many significant findings which should be considered in education for the global age in the case of England. In the following questions, students' views about education for the global age are described.

SECTION 1.3. VIEWS ABOUT EDUCATION FOR THE GLOBAL AGE

Questions 6, 8, 10 and 12 ask about a key research question, views about education for the global age. In the following small parts, findings and analysis are described in accordance with the four aspects of education, which are:

1. **the aims of education;**
2. **curriculum content;**
3. **teaching methods;**
4. **assessment methods.**

Analysis in the following parts uses both qualitative and quantitative methods.

1.3.1. THE AIMS OF EDUCATION

Question 6 asks about students' views about the aims of education for the global age.

The following figures show findings from EE and EO.

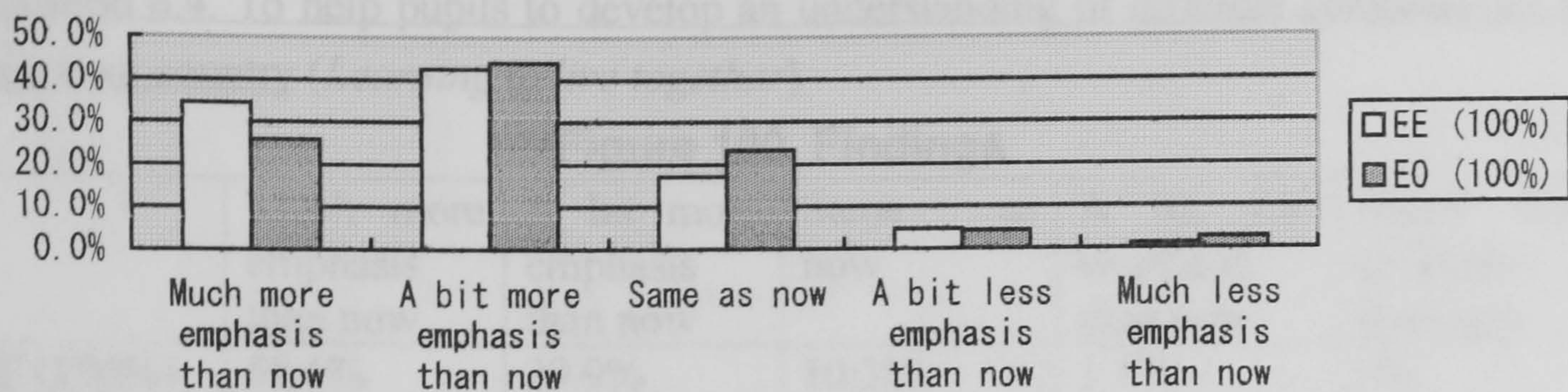
Question 6. How much emphasis do you feel should be given to each of the following aims for the secondary school curriculum in the global age?

Figures 97-103

Question 6.1. To help pupils to acquire the skills needed to get the job they want in adult life. (*Learning to do*)

Figure 97. Findings

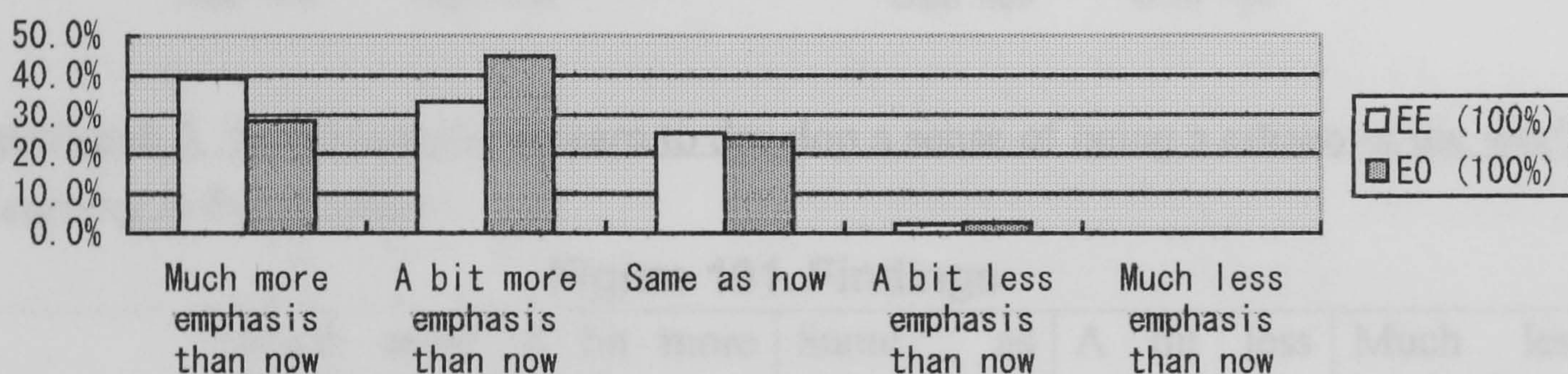
	Much more emphasis than now	A bit more emphasis than now	Same as now	A bit less emphasis than now	Much less emphasis than now
EE (100%)	34.5%	42.5%	17.2%	4.6%	1.1%
EO (100%)	25.9%	44.0%	23.3%	4.3%	2.6%
Altogether	29.6%	43.3%	20.7%	4.4%	2.0%



Question 6.2. To help pupils to acquire a broad general knowledge (*Learning to know*)

Figure 98. Findings

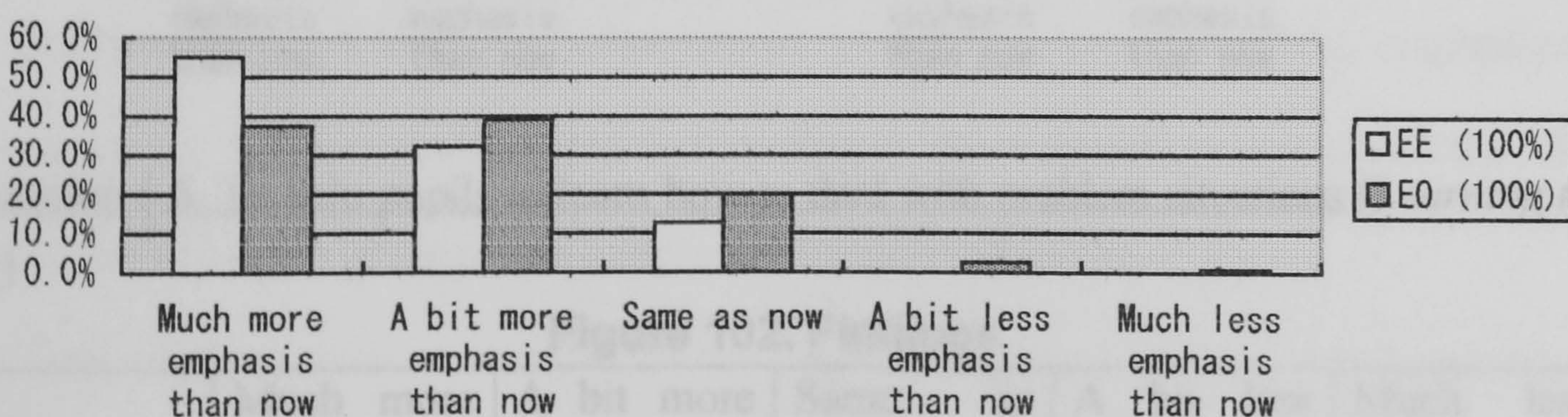
	Much more emphasis than now	A bit more emphasis than now	Same as now	A bit less emphasis than now	Much less emphasis than now
EE (100%)	39.1%	33.3%	25.3%	2.3%	0%
EO (100%)	28.4%	44.8%	24.1%	2.6%	0%
Altogether	33.0%	39.9%	24.6%	2.5%	0%



Question 6.3. To help pupils to develop an understanding of other countries and cultures. (*Learning to live together*)

Figure 99. Findings

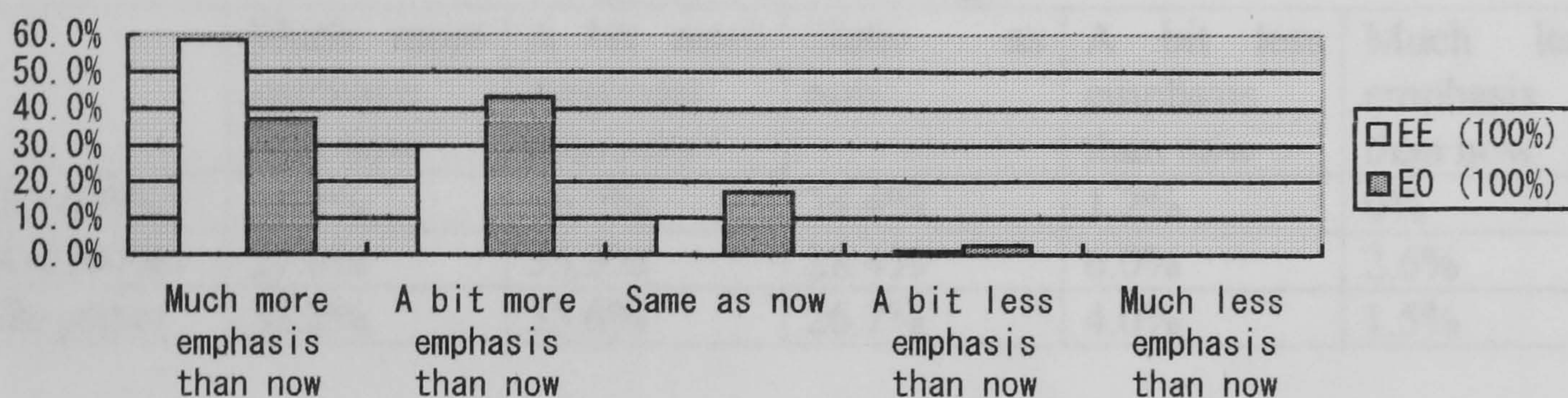
	Much more emphasis than now	A bit more emphasis than now	Same as now	A bit less emphasis than now	Much less emphasis than now
EE (100%)	55.2%	32.2%	12.6%	0%	0%
EO (100%)	37.4%	39.1%	20.0%	2.6%	0.9%
Altogether	45.0%	36.1%	16.8%	1.5%	0.5%



Question 6.4. To help pupils to develop an understanding of different communities in their own country (*Learning to live together*)

Figure 100. Findings

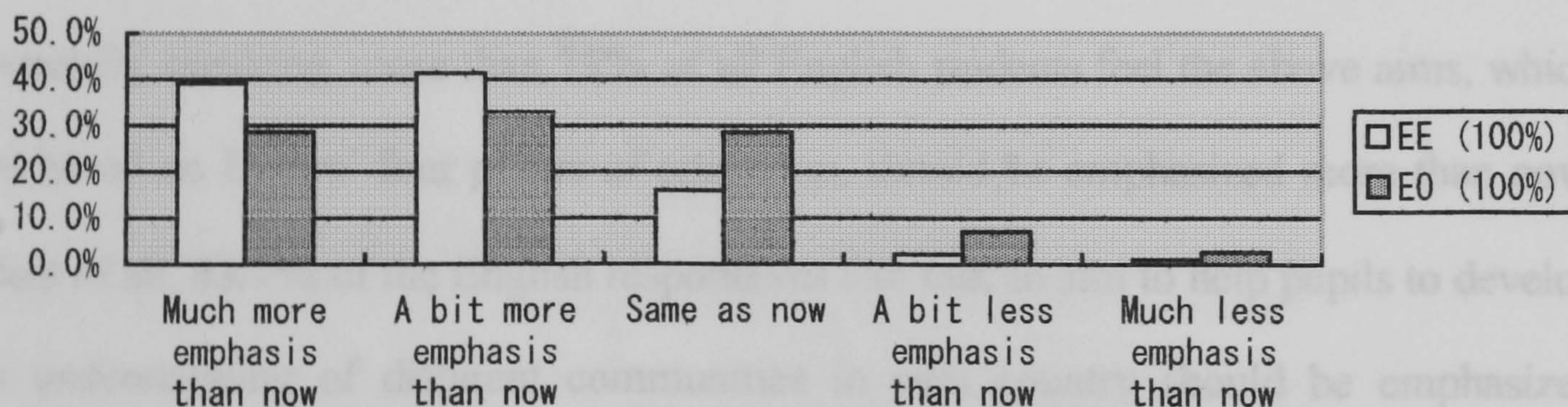
	Much more emphasis than now	A bit more emphasis than now	Same as now	A bit less emphasis than now	Much less emphasis than now
EE (100%)	58.6%	29.9%	10.3%	1.1%	0%
EO (100%)	37.1%	43.1%	17.2%	2.6%	0%
Altogether	46.3%	37.4%	14.3%	2.0%	0%



Question 6.5. To help pupils to learn to develop a sense of being a citizen of the world (*Learning to live together*)

Figure 101. Findings

	Much more emphasis than now	A bit more emphasis than now	Same as now	A bit less emphasis than now	Much less emphasis than now
EE (100%)	39.1%	41.4%	16.1%	2.3%	1.1%
EO (100%)	28.7%	33.0%	28.7%	7.0%	2.6%
Altogether	33.2%	36.6%	23.3%	5.0%	2.0%

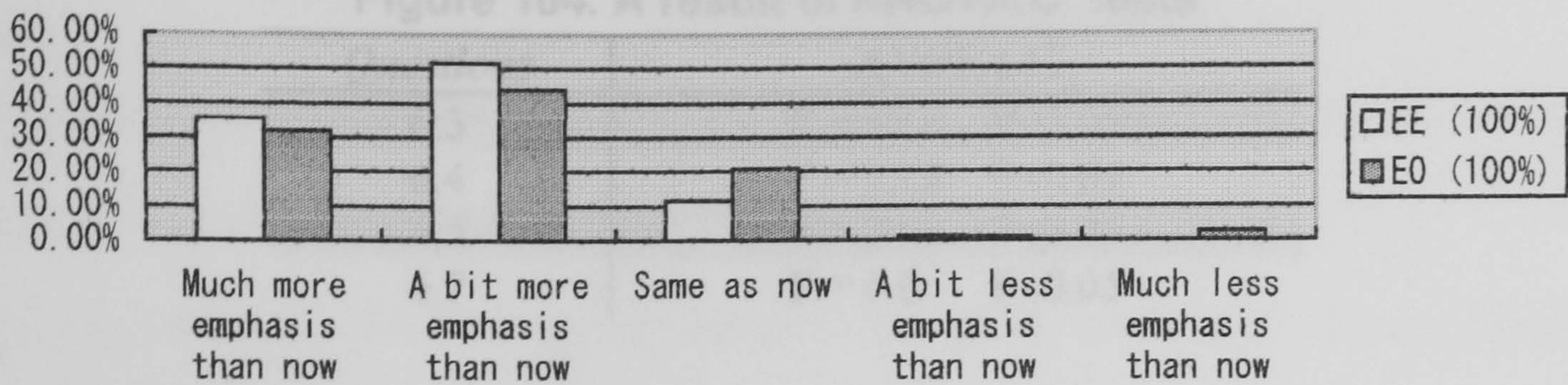


Question 6.6. To help pupils to learn how to deal with problem situations (*Learning to be*)

Figure 102. Findings

	Much more emphasis than now	A bit more emphasis than now	Same as now	A bit less emphasis than now	Much less emphasis than now
EE (100%)	35.6%	51.7%	11.5%	1.1%	0%
EO (100%)	31.9%	44.0%	20.7%	0.9%	2.6%
Altogether	33.5%	47.3%	16.7%	1.0%	1.5%

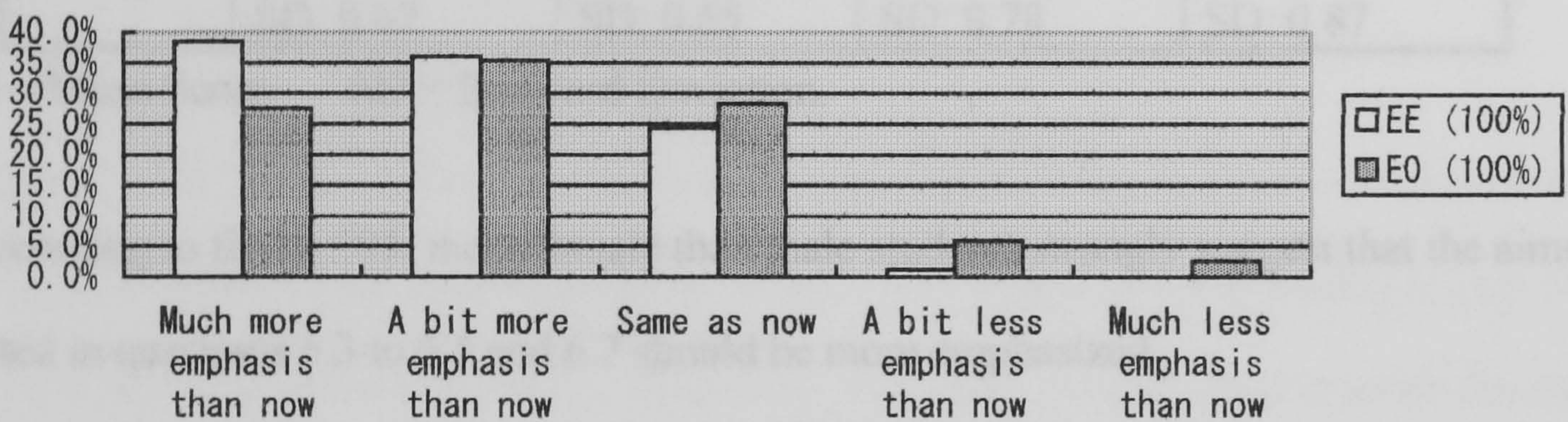
Figure 104. A result of ANOVA.C tests



Question 6.7. To help pupils to exercise greater autonomy (*Learning to be*)

Figure 103. Findings

	Much more emphasis than now	A bit more emphasis than now	Same as now	A bit less emphasis than now	Much less emphasis than now
EE (100%)	38.4%	36.0%	24.4%	1.2%	0%
EO (100%)	27.6%	35.3%	28.4%	6.0%	2.6%
Altogether	32.2%	35.6%	26.7%	4.0%	1.5%



Findings & Analysis

Generally speaking, more than 75% of all English students feel the above aims, which are based on Delors' four pillars of education, should be emphasized more than now. Most of all, 83.7% of the English respondents feel that an aim to help pupils to develop an understanding of different communities in own country should be emphasized (question 6.4, see figure 100). This finding reflects the multicultural society of the UK, and it would be one of the cultural aspects of English education.

In terms of comparison, statistical tests indicate two important findings which are worth mentioning here. First, some ANOVA.C tests reveal a relationship between answers and the respondents' sex as follows:

Figure 104. A result of ANOVA.C. tests

<i>Questions</i>	<i>ANOVA.C.</i>
6.3	F = 19.0 P<0.05
6.4	F = 13.8 P<0.05
6.5	F = 20.3 P<0.05
6.7	F = 6.0 P<0.05

In order to clarify how students' answers for the above questions differ in accordance with sex, the following figure will be helpful.

Figure 105. Mean Scores and Standard Deviation

SEX	Q.6.3	Q.6.4	Q.6.5	Q.6.7
Male	M: 2.03 SD: 0.91	M: 1.94 SD: 0.87	M: 2.40 SD: 1.09	M: 2.25 SD: 0.99
Female	M: 1.55 SD: 0.67	M: 1.54 SD: 0.65	M: 1.81 SD: 0.78	M: 1.93 SD: 0.87

M = Mean Score. SD = Standard Deviation.

According to figure 105, more female than male students strongly suggest that the aims listed in questions 6.3 to 6.5 and 6.7 should be more emphasized.

Meanwhile, there is another statistical test, which finds differences between EE and EO in answers for question 6. The following figures show the result of ANOVA.E tests and mean scores.

Figure 106. A result of ANOVA.E. tests

<i>Questions</i>	<i>ANOVA.C.</i>
6.3	F = 7.86 P<0.05
6.4	F = 7.80 P<0.05
6.5	F = 7.31 P<0.05
6.7	F = 5.72 P<0.05

Figure 107. Mean Scores and Standard Deviation

	Q.6.3	Q.6.4	Q.6.5	Q.6.7
EE	M: 1.57 SD: 0.71	M: 1.54 SD: 0.73	M: 1.85 SD: 0.86	M: 1.88 SD: 0.82
EO	M: 1.89 SD: 0.87	M: 1.84 SD: 0.79	M: 2.22 SD: 1.02	M: 2.20 SD: 1.00

M = Mean Score. SD = Standard Deviation.

The above figures illustrate that more students in group EE than students in group EO feel there should be emphasis on the aims in questions 6.3 to 6.5 and 6.7.

In a way, the above two findings may relate to each other, since there are more female (66.3%) than male students in group EE. However, what we can say from these findings is that students in group EE rather than group EO, and female rather than male students, are keen on emphasizing the aims related to Delors' 'learning to live together' and 'learning to be'.

A Summary of Findings from Question 6

Generally speaking, 75.6% of all English students feel the aims in question 6 should be emphasized more than now. Especially, a finding of question 6.4 provides a cultural insight into English society. In the meantime, statistical tests reveal that more female than male students, and students in group EE rather than group EO are positive in emphasizing some of the aims in question 6.

In the following sub-section, findings of students' views about curriculum contents are shown.

SECTION 1.3.2. CURRICULUM CONTENT

Students' views about the curriculum content of education for the global age are asked about in question 8. There are 11 curriculum content items listed through question 8, and the following figures show findings from the English students.

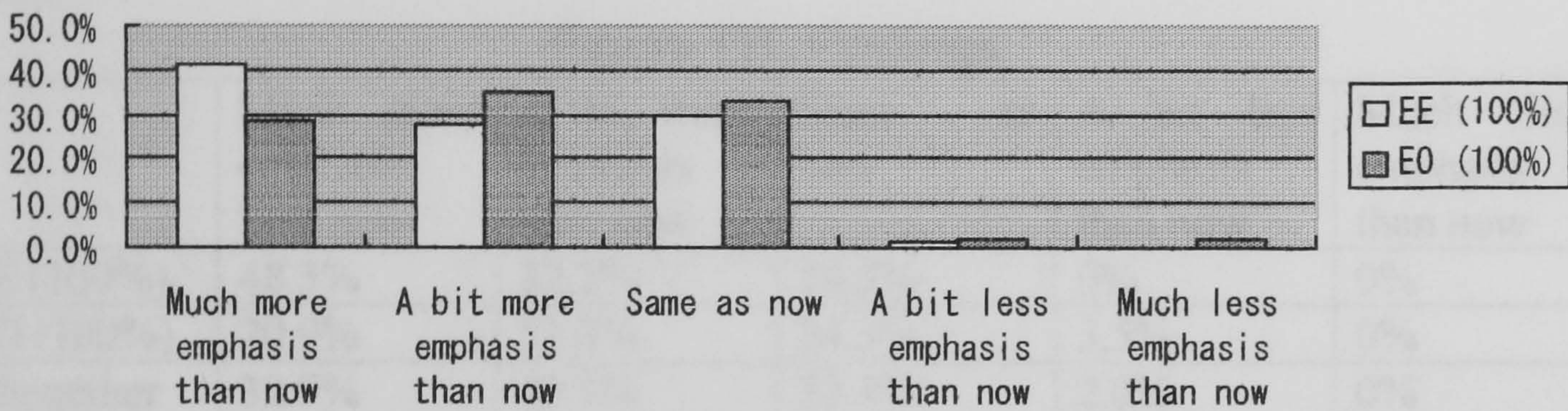
Question 8. How much emphasis do you feel should be given to the following areas of the school curriculum in the global age?

Figures 108-118

Question 8.1. Basic skills (literacy, numeracy) (*Learning to know*)

Figure 108. Findings

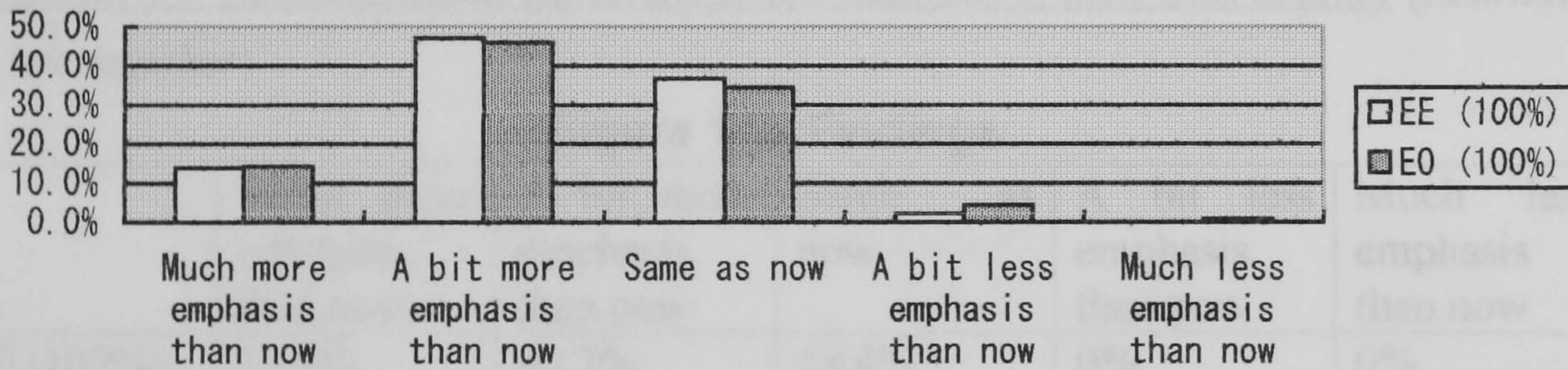
	Much more emphasis than now	A bit more emphasis than now	Same as now	A bit less emphasis than now	Much less emphasis than now
EE (100%)	41.4%	27.6%	29.9%	1.1%	0%
EO (100%)	28.1%	35.1%	33.3%	1.8%	1.8%
Altogether	33.8%	31.8%	31.8%	1.5%	1.0%



Question 8.2. high-level skills / knowledge (*Learning to know*)

Figure 109. Findings

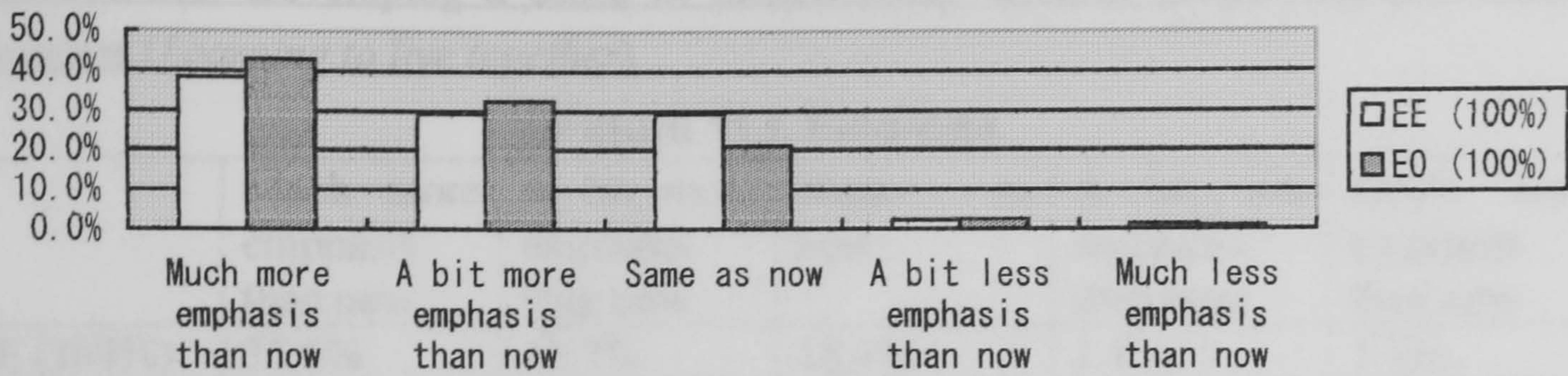
	Much more emphasis than now	A bit more emphasis than now	Same as now	A bit less emphasis than now	Much less emphasis than now
EE (100%)	13.8%	47.1%	36.8%	2.3%	0%
EO (100%)	14.2%	46.0%	34.5%	4.4%	0.9%
Altogether	14.0%	46.5%	35.5%	3.5%	0.5%



Question 8.3. Foreign languages (*Learning to know*)

Figure 110. Findings

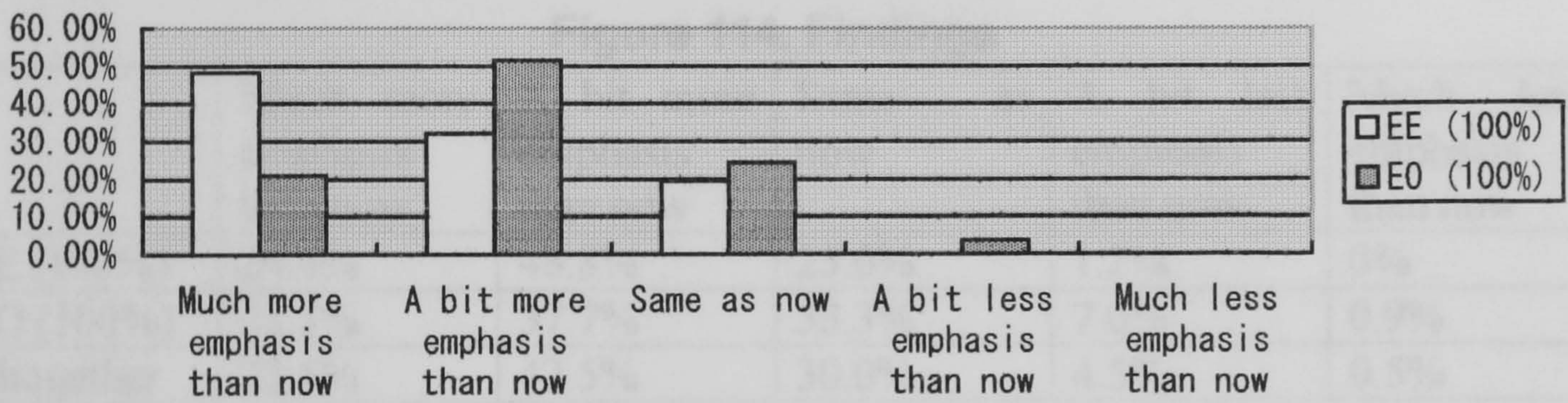
	Much more emphasis than now	A bit more emphasis than now	Same as now	A bit less emphasis than now	Much less emphasis than now
EE (100%)	38.4%	29.1%	29.1%	2.3%	1.2%
EO (100%)	43.0%	32.5%	21.1%	2.6%	0.9%
Altogether	41.0%	31.0%	24.5%	2.5%	1.0%



Question 8.4. Learning about the culture of people in other countries (*Learning to live together*)

Figure 111. Findings

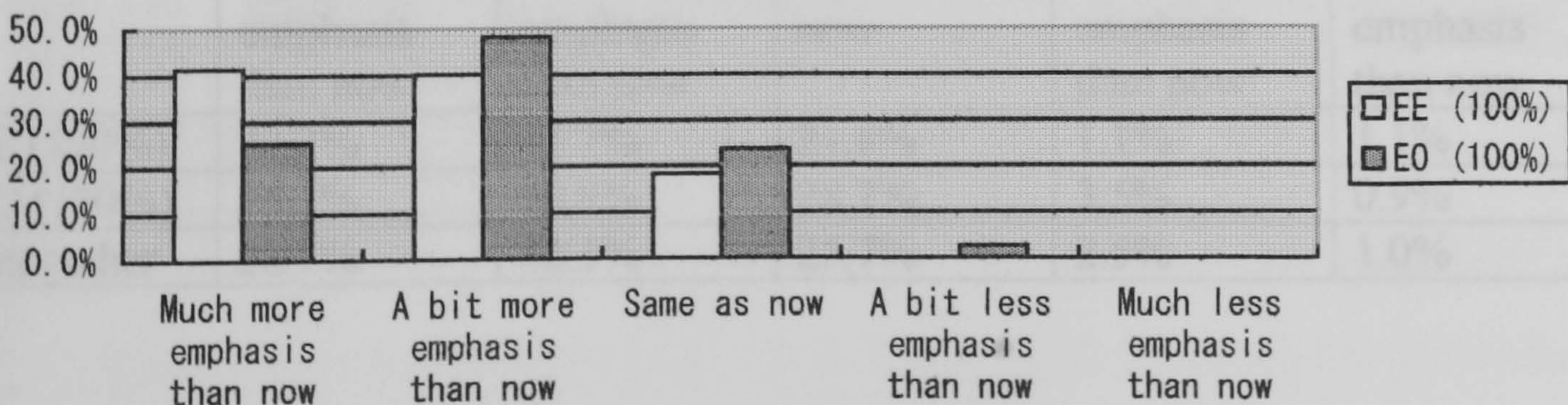
	Much more emphasis than now	A bit more emphasis than now	Same as now	A bit less emphasis than now	Much less emphasis than now
EE (100%)	48.3%	32.2%	19.5%	0%	0%
EO (100%)	20.9%	51.3%	24.3%	3.5%	0%
Altogether	32.7%	43.1%	22.3%	2.0%	0%



Question 8.5. Learning about the different communities in their own country (*Learning to live together*)

Figure 112. Findings

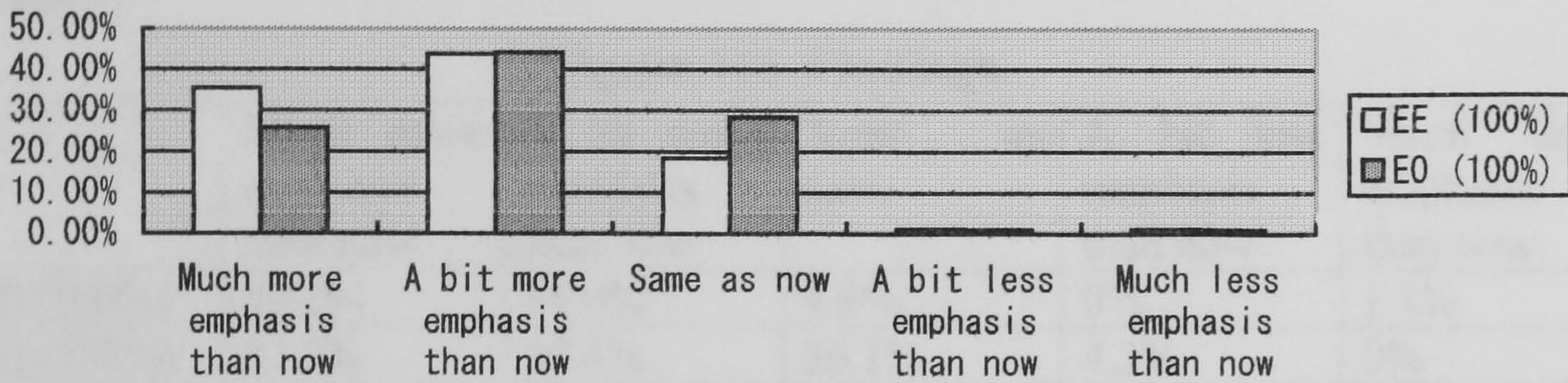
	Much more emphasis than now	A bit more emphasis than now	Same as now	A bit less emphasis than now	Much less emphasis than now
EE (100%)	41.4%	40.2%	18.4%	0%	0%
EO (100%)	25.4%	48.2%	23.7%	2.6%	0%
Altogether	32.3%	44.8%	21.4%	1.5%	0%



Question 8.6. Developing a sense of responsibility towards people living in other countries (*Learning to live together*)

Figure 113. Findings

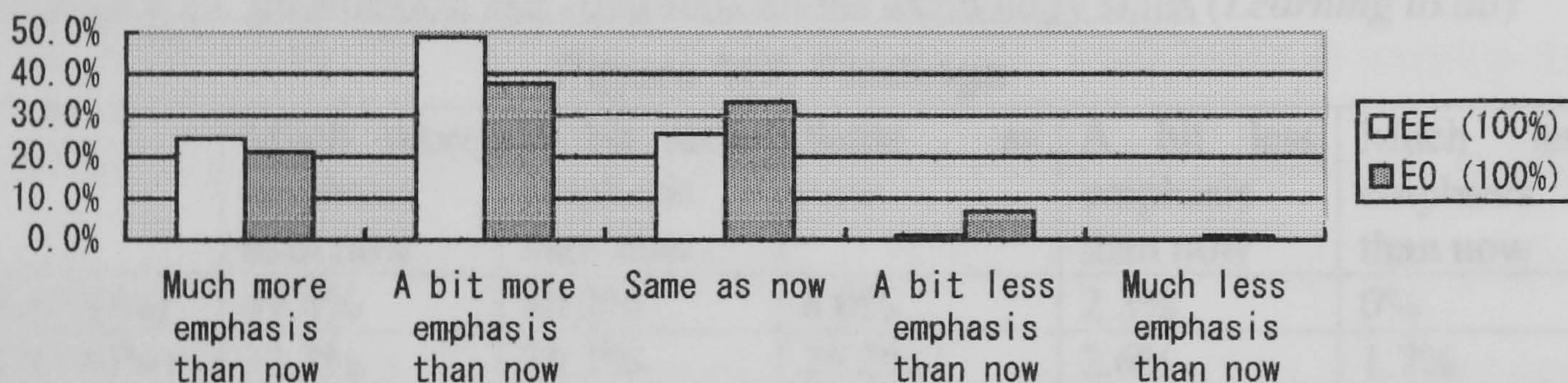
	Much more emphasis than now	A bit more emphasis than now	Same as now	A bit less emphasis than now	Much less emphasis than now
EE (100%)	35.6%	43.7%	18.4%	1.1%	1.1%
EO (100%)	25.7%	44.2%	28.3%	0.9%	0.9%
Altogether	30.0%	44.0%	24.0%	1.0%	1.0%



Question 8.7. Developing a sense of individual empowerment (*Learning to be*)

Figure 114. Findings

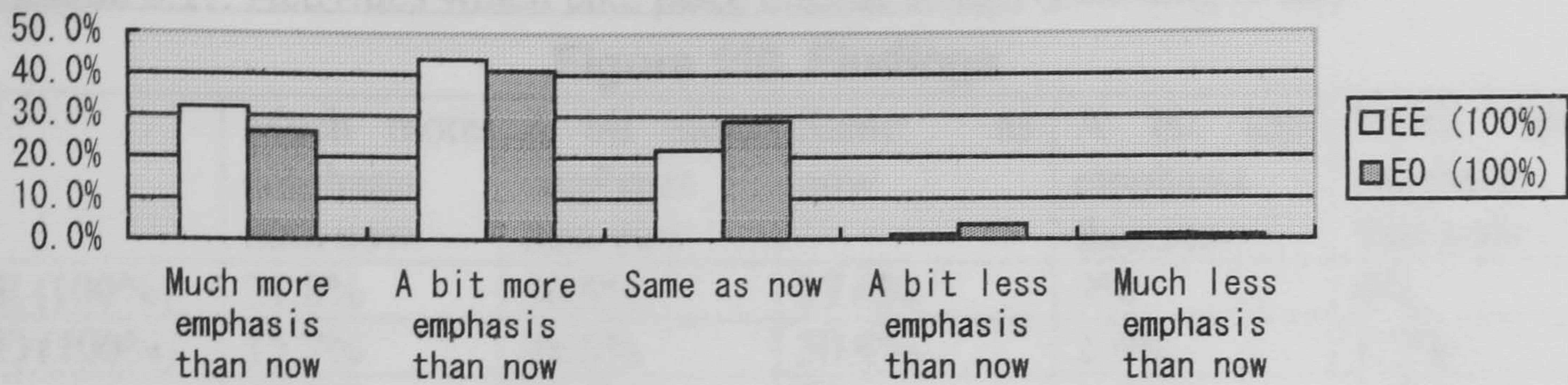
	Much more emphasis than now	A bit more emphasis than now	Same as now	A bit less emphasis than now	Much less emphasis than now
EE (100%)	24.4%	48.8%	25.6%	1.2%	0%
EO (100%)	21.1%	37.7%	33.3%	7.0%	0.9%
Altogether	22.5%	42.5%	30.0%	4.5%	0.5%



Question 8.8. Visiting and living in other countries (*Learning to live together*)

Figure 115. Findings

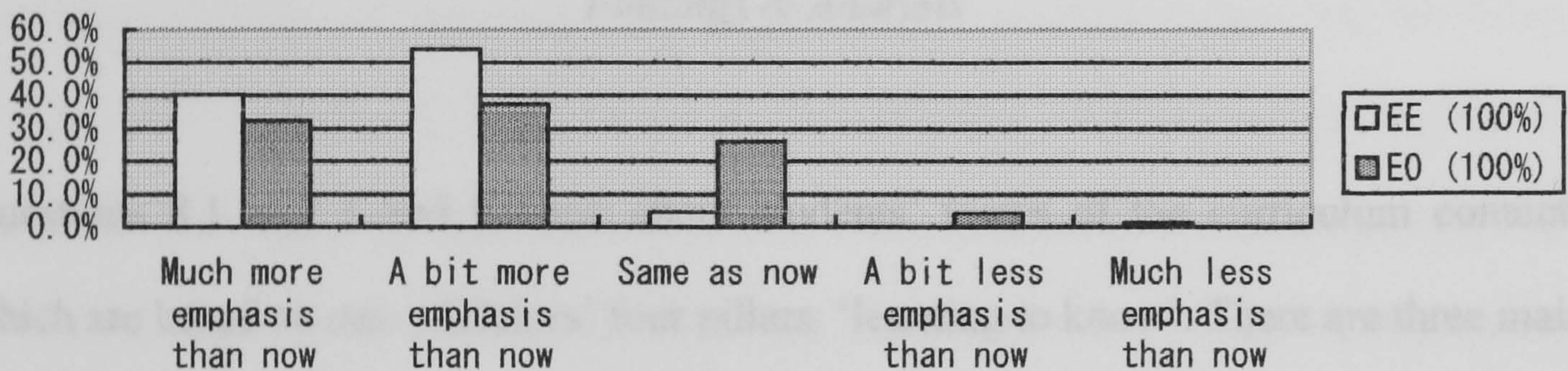
	Much more emphasis than now	A bit more emphasis than now	Same as now	A bit less emphasis than now	Much less emphasis than now
EE (100%)	32.2%	43.7%	21.8%	1.1%	1.1%
EO (100%)	26.1%	40.9%	28.7%	3.5%	0.9%
Altogether	28.7%	42.1%	25.7%	2.5%	1.0%



Question 8.9. World issues (e.g. environment, human rights, war and peace) (*Learning to know*)

Figure 116. Findings.

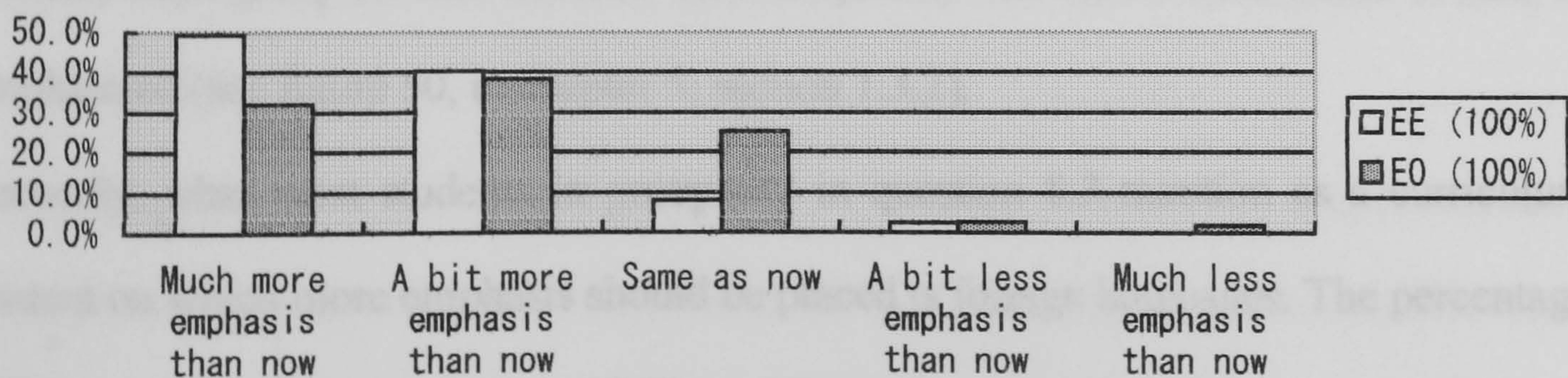
	Much more emphasis than now	A bit more emphasis than now	Same as now	A bit less emphasis than now	Much less emphasis than now
EE (100%)	40.2%	54.0%	4.6%	0%	1.1%
EO (100%)	32.2%	37.4%	26.1%	4.3%	0%
Altogether	35.6%	44.6%	16.8%	2.5%	0.5%



Question 8.10. Information and communications technology skills (*Learning to do*)

Figure 117. Findings

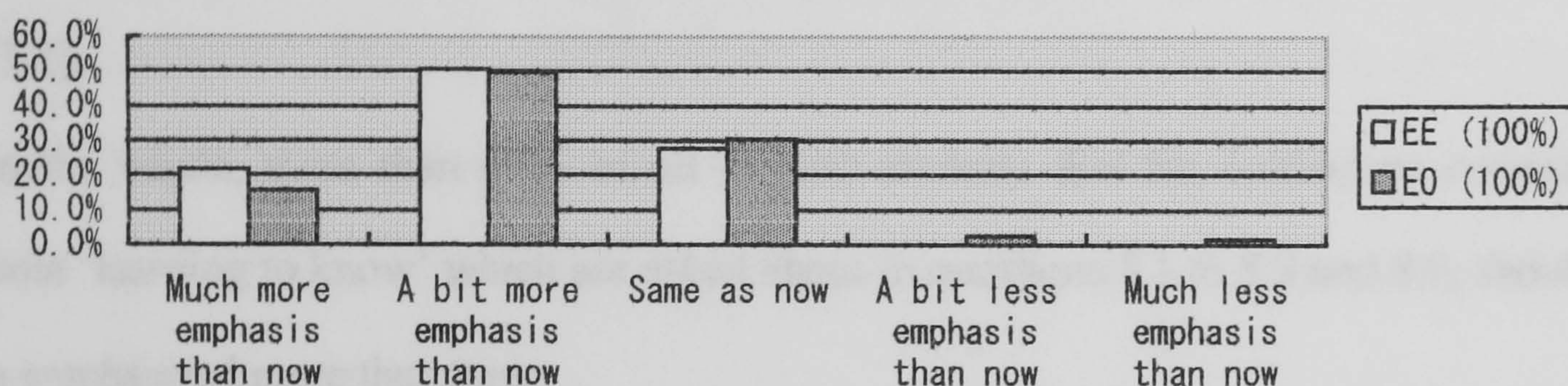
	Much more emphasis than now	A bit more emphasis than now	Same as now	A bit less emphasis than now	Much less emphasis than now
EE (100%)	49.4%	40.2%	8.0%	2.3%	0%
EO (100%)	32.2%	38.3%	25.2%	2.6%	1.7%
Altogether	39.6%	39.1%	17.8%	2.5%	1.0%



Question 8.11. Activities which take place outside school (*Learning to do*)

Figure 118. Findings

	Much more emphasis than now	A bit more emphasis than now	Same as now	A bit less emphasis than now	Much less emphasis than now
EE (100%)	21.8%	50.6%	27.6%	0%	0%
EO (100%)	15.7%	49.6%	30.4%	2.6%	1.7%
Altogether	18.3%	50.0%	29.2%	1.5%	1.0%



Findings & Analysis

Questions 8.1 to 8.3 and 8.9 ask about students' views of the curriculum contents which are based on one of Delors' four pillars: 'learning to know'. There are three main findings which should be noted here from these questions. First, the curriculum content which most students feel should be emphasized is world wide issues in question 8.9. Especially, students in group EE strongly feel it should be emphasized, and the percentage of those students is **94.2%** (see figure 116). Although the detailed comparison of answers between Japanese and English students will be described later, students from group JE also mention most frequently that world wide issues should be emphasized (see figure 50, in chapter 5, section 1.3.2).

Secondly, what most students in group EO in question 8.3 mention as a curriculum content on which more emphasis should be placed is foreign languages. The percentage of those students in group EO is **75.5%**, while students in group EE are not as keen on this curriculum content (see figure 110). Again, it will be worth noting that this finding is quite similar to a finding from group JO for question 8.3 (see figure 44, in chapter 5,

section 1.3.2).

Lastly, the curriculum content which students are least keen on emphasizing is high-level skills / knowledge in question 8.2. Nevertheless, it should be noted that the number of English students who state that high-level skills / knowledge should be emphasized is not as low as Japanese students (see figure 43, in chapter 5, section 1.3.2).

On the whole, more than **60%** of all English students feel the curriculum contents about 'learning to know' which are asked about in questions 8.1 to 8.3 and 8.9, should be emphasized more than now.

Apart from 'learning to know', questions 8.4 to 8.6 and 8.8 are about the curriculum contents which include 'learning to live together'. According to figures 111 to 113 and 115, it may be possible to say that more students in group EE than students in group EO are positive in emphasizing those curriculum contents. However, the mean percentage of those students who answer that these curriculum contents should be emphasized more than now is very high at **74.4%**.

Another finding worth mentioning in the curriculum contents which relate to 'learning to live together' is that English students are very keen on emphasizing learning about the culture of people in their own community (see question 8.5). In total, **77.1%** of all students believe it should be emphasized more. This finding may reflect current English society which consists of different cultures and links with another finding in question 6.4, figure 100.

The next question 8.7 is about 'learning to be'. Although **65.0%** of all English students feel it should be emphasized, another statistical test reveals that there is a difference in answers between EE and EO (ANOVA.E. $F=4.24$, $P<0.05$). This means that students in group EE rather than group EO are keen to emphasize this type of curriculum content. This is the same tendency as the questions which have already been examined.

Lastly, questions 8.10 and 8.11 are about the curriculum contents which include the rather vocational aim of ‘learning to do’. In total, **78.7%** of the respondents feel information and technology skills should be emphasized (see figure 117). This is the second highest percentage of all English students’ concerns. One possible reason for this is that students in the University of York are fully equipped with computer facilities, and acquiring ICT skills are essential for their academic achievements. Moreover, they also may have discovered the great value of the Internet. In addition, they may feel that ICT is one of the key skills for survival in the global age, one of whose constituents is an information oriented society.

In addition, **68.3%** of the respondents answer that activities taken outside school should be emphasized (see figure 118). In the same way as the above questions, more students in group EE than in group EO are positive in emphasizing these curriculum contents.

Before moving to a brief summary of findings from question 8, there are a few findings from other statistical tests which are worth noting here. According to ANOVA.A test, which looks at relationships between answers and students’ curriculum area, students who undertake Physics tend to answer in a different manner compared with other students. The following tables show the detailed findings from ANOVA.A tests and Post Hoc Tests.

Figure 119. Results of ANOVA.A tests

<i>Questions</i>	<i>ANOVA.A</i>
Question 8.2	F=2.32 P<0.05
Question 8.7.	F=2.83 P<0.05
Question 8.9	F=3.22 P<0.05
Question 8.10	F=2.03 P<0.05

Figure 120. Mean scores and Standard Deviation

<i>Questions</i>	<i>Curriculum areas in which a significant difference is found (P: 0.05)</i>	
Q.8.2	Physics (EO)	Mathematics (EO)
	M=2.38, SD=0.83	M= 1.78, SD=0.67
Q.8.7	Physics (EO)	Philosophy (EO)
	M=2.56, SD=0.89	M=1.60, SD=0.69
Q.8.9	Physics (EO)	Modern Languages (EE)
	M=2.33, SD=0.83	M=1.47, SD=0.51
Q.8.10	Physics (EO)	Mathematics (EE)
	M=2.18, SD=1.03	M=1.58, SD=0.99

M = Mean score. (Answers for questions which give five numerical responses are divided in 5 scores. See chapter 5, section 1.2.)

SD = Standard Deviation.

What can be found in the above figures is that students undertaking Physics are not very keen on emphasizing some of the curriculum contents listed in question 8. First, question 8.2 is about high-level skills / knowledge, concerned with ‘learning to know’. As shown in figure 120, students undertaking Physics and Mathematics give different answers for this question even though both sets of students are undertaking scientific studies.

Secondly, question 8.7 is about developing a sense of individual empowerment, and question 8.9 is about world wide issues. Although it is impossible to define why Physics students are less keen on emphasizing the importance of these contents, one possible reason could be that these contents are less relevant to their study. For example, students undertaking Philosophy may be more interested in self-development, because of the nature of their study. In the same way, Modern Languages students could be more sensitive to contents that are concerned with world wide issues. If this hypothesis could be the reason for the above figure, it may be possible to say that Physics students are less concerned with the above issues.

Finally, question 8.10 asks about acquiring information and communications technology skills. Although it can be assumed that Physics students are the very people

who need to have these skills the most, they are not very keen on emphasizing these skills in secondary school education. For one reason, a few students stated that ICT skills taught in secondary school was out-of-date and after all were useless for their present course at university. This note may indicate that students undertaking Physics are rather negative in emphasizing ICT skills in secondary school because of the nature of their own subject, and they may not mean ICT skills could not be a good preparation for the global age.

Apart from this, another statistical test reveals that more female than male students are positive in emphasizing most of the contents asked about in question 8. The following table shows the result of ANOVA.C tests.

Figure 121. The result of ANOVA.C. tests

Questions	ANOVA.C.
8.3	F = 7.94 P<0.05
8.4	F = 7.10 P<0.05
8.5	F = 5.89 P<0.05
8.6	F = 6.99 P<0.05
8.7	F = 10.10 P<0.05
8.8	F = 7.51 P<0.05
8.9	F = 4.87 P<0.05

It may be worth noting this finding, since a relationship between answers and gender is found in several questions so far.

A Brief Summary of Findings from question 8

The following figure shows the three curriculum content items which students mention most frequently.

Figure 122. The 3 curriculum contents noted to be emphasized by English students

	<i>EE</i>	<i>EO</i>	<i>Altogether</i>
1	Q.8.9 (World issues. 94.2%)	Q. 8.3 (Foreign languages. 75.5%)	Q.8.9 (World wide issues. 80.2%)
2	Q.8.10 (ICT skills. 89.6%)	Q.8.5 (Learning about the different community in their own country. 73.6%)	Q.8.10 (ICT skills. 78.7%)
3	Q.8.5 (Learning about the different community in their own country. 81.6%)	Q.8.4 (Learning about the culture of people in other countries. 72.2%)	Q.8.5 (Learning about the different community in their own country. 77.1%)

The curriculum content item mentioned by most students in group EE is world wide issues, while foreign languages is the curriculum content item which students in group EO have mentioned most. Since these two curriculum content items are mentioned in the same way by the Japanese students (see figure 44, in chapter 5), this appears to be an interesting finding which clarifies different attitudes towards educational issues between students who undertake teacher training courses and those who undertake other courses. In addition, it should be noted here that findings show that more students in EE than in EO are positive in emphasizing the importance of curriculum content items asked about in question 8.

In the meantime, English students seem to feel that ICT skills are one of the key skills needed in the global age.

Meanwhile, findings from question 8.5 reflect cultural aspects of English society. Since there exist many different cultures in Britain, this may be a central concern for English students, learning about different communities in their own country.

In conclusion, the average percentage of **71.6%** of all English students clearly demonstrates that positive emphasis should be placed on all curriculum content items asked about in question 8.

SECTION 1.3.3. TEACHING METHODS

Students' views about teaching methods to be used in education for the global age, are asked about in question 10. The following figures show the findings.

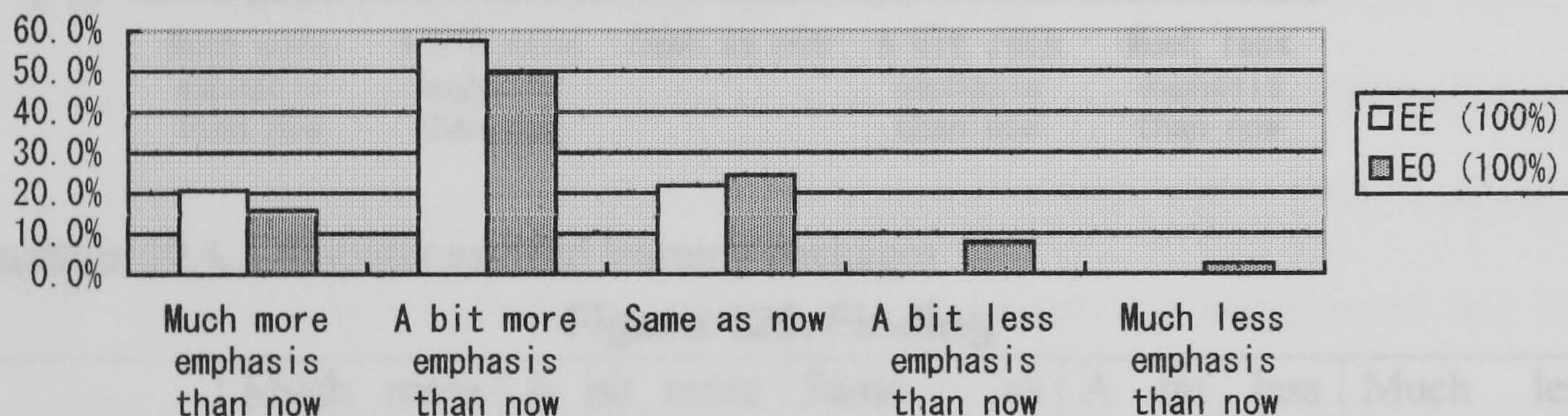
Question 10. How much emphasis do you feel should be given to the use of the following teaching methods in the global age?

Figures 123-127

Question 10.1. Collaborative activities where small groups of pupils have to work together as a team

Figure 123. Finding

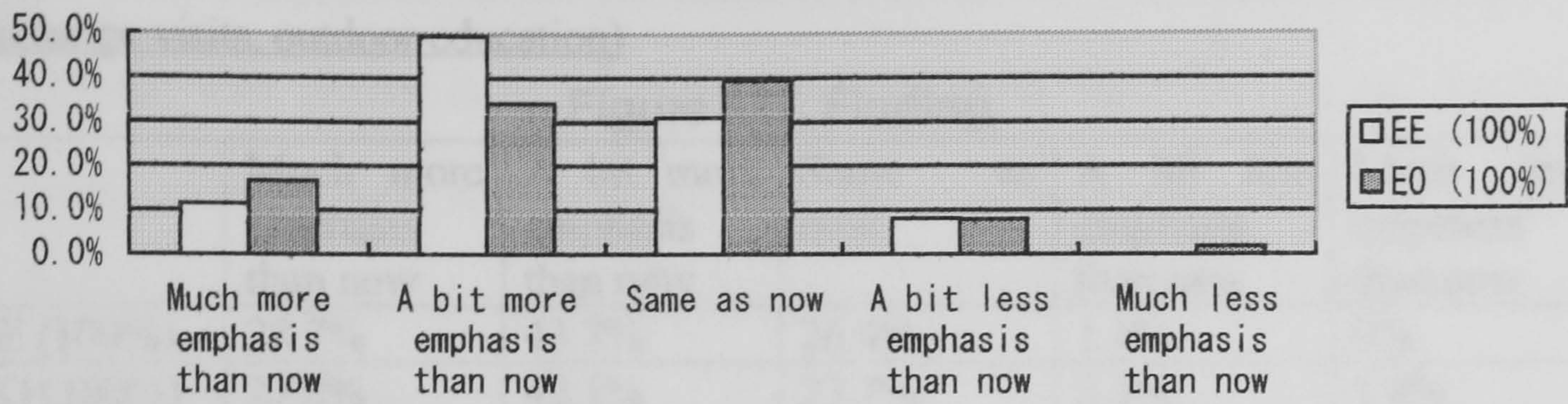
	Much more emphasis than now	A bit more emphasis than now	Same as now	A bit less emphasis than now	Much less emphasis than now
EE (100%)	20.7%	57.5%	21.8%	0%	0%
EO (100%)	15.7%	49.6%	24.3%	7.8%	2.6%
Altogether	17.8%	53.0%	23.3%	4.5%	1.5%



Question 10.2. Individualized programmes of work where each pupil can work alone at his / her own pace

Figure 124. Finding

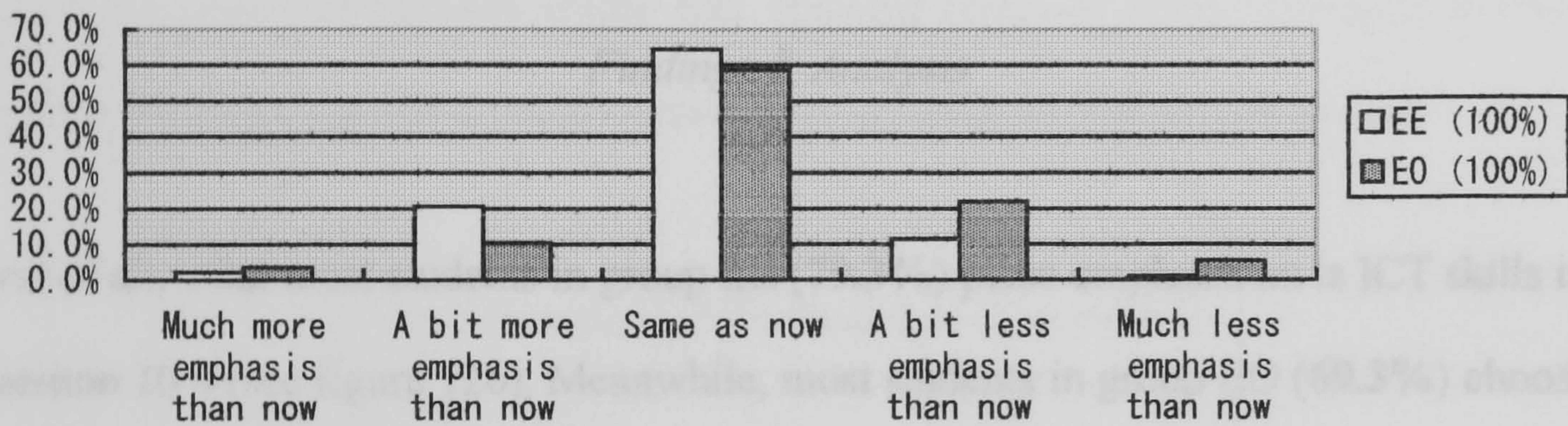
	Much more emphasis than now	A bit more emphasis than now	Same as now	A bit less emphasis than now	Much less emphasis than now
EE (100%)	11.5%	49.4%	31.0%	8.0%	0%
EO (100%)	16.7%	34.2%	39.5%	7.9%	1.8%
Altogether	14.4%	40.8%	35.8%	8.0%	1.0%



Question 10.3. Whole class teaching

Figure 125. Finding

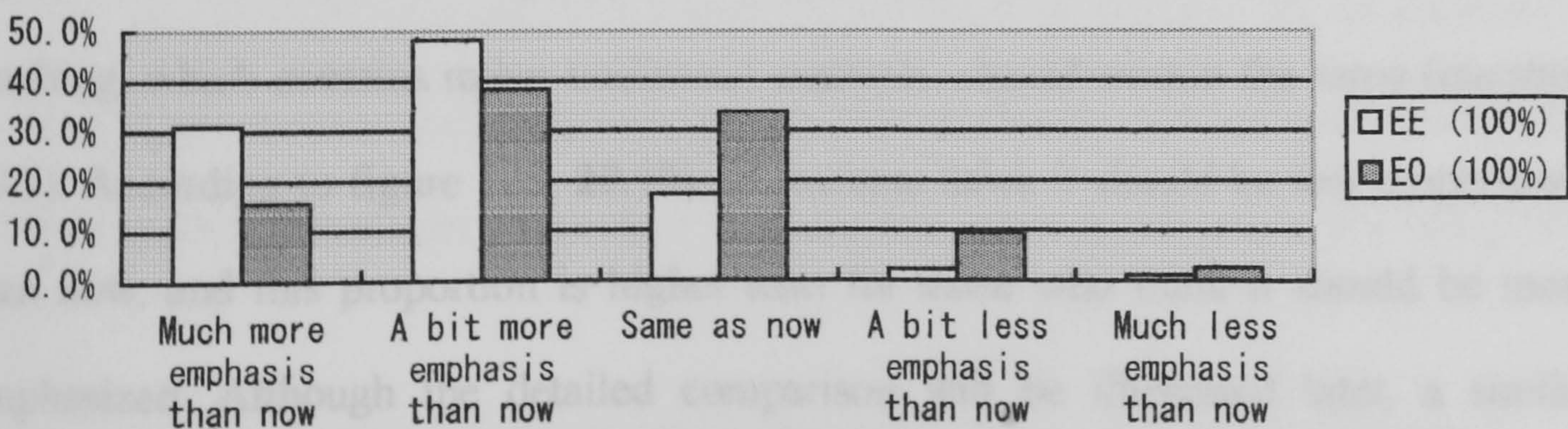
	Much more emphasis than now	A bit more emphasis than now	Same as now	A bit less emphasis than now	Much less emphasis than now
EE (100%)	2.3%	20.7%	64.4%	11.5%	1.1%
EO (100%)	3.5%	10.5%	58.8%	21.9%	5.3%
Altogether	3.0%	14.9%	61.2%	17.4%	3.5%



Question 10.4. Computer assisted learning packages

Figure 126. Finding

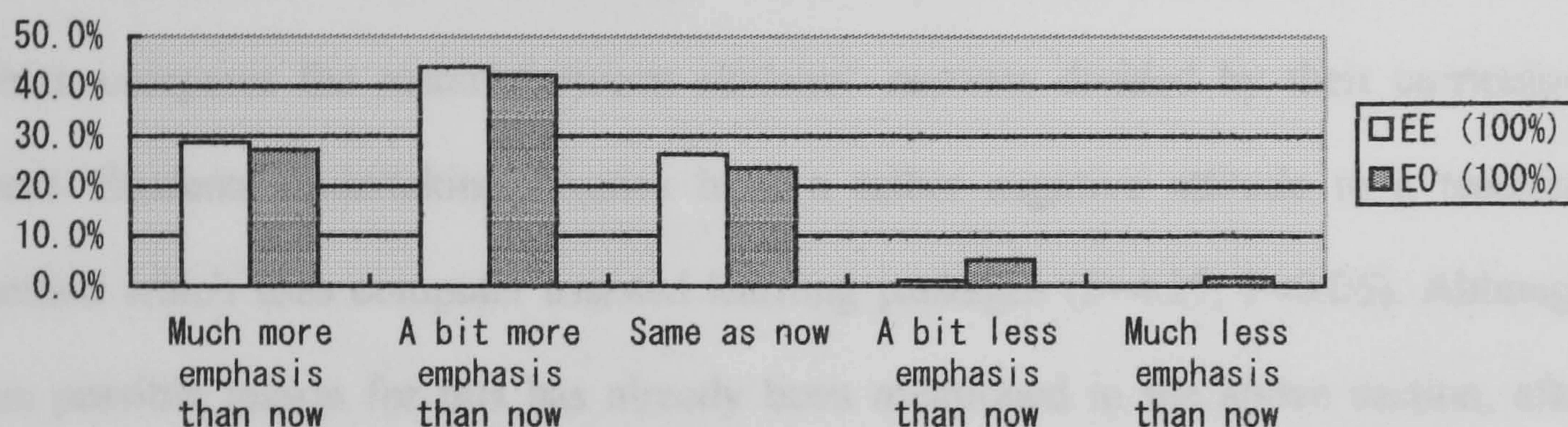
	Much more emphasis than now	A bit more emphasis than now	Same as now	A bit less emphasis than now	Much less emphasis than now
EE (100%)	31.0%	48.3%	17.2%	2.3%	1.1%
EO (100%)	15.7%	38.3%	33.9%	9.6%	2.6%
Altogether	22.3%	42.6%	26.7%	6.4%	2.0%



Question 10.5. Activities which take place outside school (e.g. work experience, exchange visits, outdoor education)

Figure 127. Finding

	Much more emphasis than now	A bit more emphasis than now	Same as now	A bit less emphasis than now	Much less emphasis than now
EE (100%)	28.7%	43.7%	26.4%	1.1%	0%
EO (100%)	27.2%	42.1%	23.7%	5.3%	1.8%
Altogether	27.9%	42.8%	24.9%	3.5%	1.0%



Findings & Analysis

First of all, what most students in group EE (79.3%) place emphasis on is ICT skills in question 10.4 (see figure 126). Meanwhile, most students in group EO (69.3%) choose outside activities as a method which should be emphasized (see figure 127). Altogether, 70.8% of all English students regardless of their educational background feel that collaborative activities where small groups of pupils have to work together as a team should be emphasized (see figure 123). As already seen in question 4, in section 1.2, English students seem to feel that it is worth working in a group for many reasons.

Apart from the above findings, 61.2% of the English students feel that whole class teaching, which contains rather traditional methods, should remain the same (question 10.3). According to figure 125, 20.9% of students think it should be less emphasized than now, and this proportion is higher than for those who think it should be more emphasized. Although the detailed comparison will be illustrated later, a similar opinion can be found in the Japanese research, which has been described in chapter 5, in section 1.3.3.

In terms of comparison within the English respondents, a significant difference in accordance with gender is found in question 10. In the same way as the previous questions, more female than male students are positive to emphasize the teaching methods asked about in questions 10.4 and 10.5 (ANOVA.C: q.10.4: $F=16.89$, $P<0.05$; q.10.5: $F=4.77$, $P<0.05$).

Moreover, another interesting finding is revealed by ANOVA.A test. ANOVA A test, which compares the means between students' answers divided by their curriculum areas. Students undertaking Physics have a rather negative attitude to a teaching method which uses computer assisted learning packages ($F=4.27$, $P<0.05$). Although one possible reason for this has already been mentioned in the above section, after figure 120, this finding may imply that teaching methods using computer assisted learning packages may be a controversial issue in education for the global age.

A Brief Summary of Findings from Question 10

In total, more than half of all English students feel that all the teaching methods asked about in question 10, except for whole class teaching, should be emphasized in the global age. Most of all, the majority of students prefer the teaching method which contains collaborative activities where small groups of pupils have to work together as a team. Meanwhile, a statistical test finds that more female than male students are positive in emphasizing some of the teaching methods in question 10. In addition, a finding from another statistical test shows that teaching methods using computer assisted learning packages could be a controversial issue in education for the global age.

In the following question, students' views about assessment methods are described.

SECTION 1.3.4. ASSESSMENT METHODS

In question 12, students were asked for their views about assessment methods which are suitable to be used in the global age. This is the last multi-choice question.

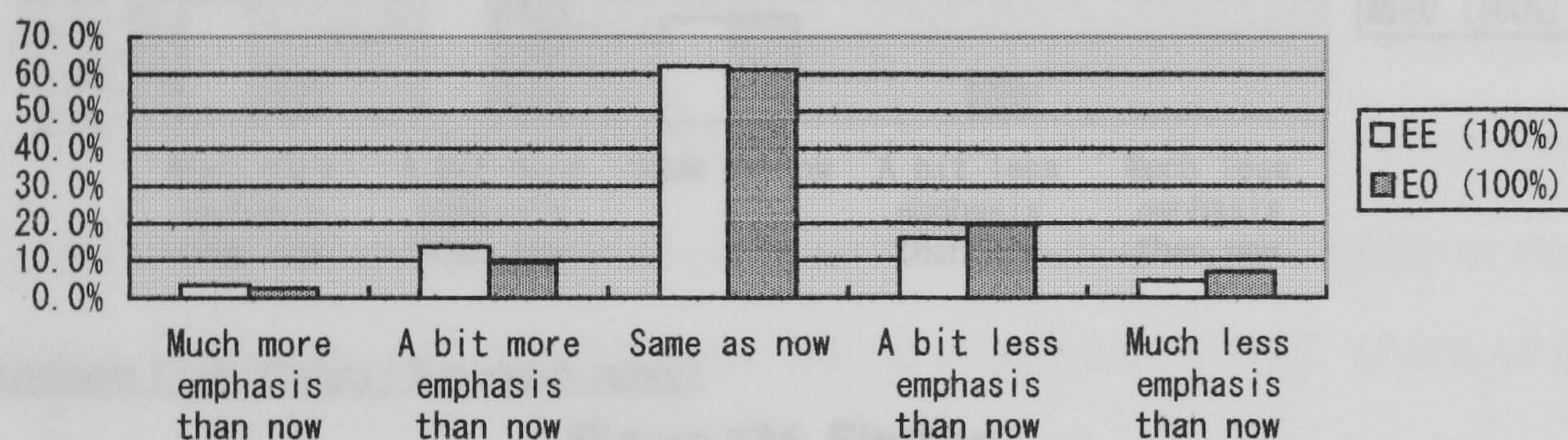
Question 12. How much emphasis do you feel should be given to the use of the following assessment methods in the global age?

Figures 128-132

Question 12.1. Written examination

Figure 128. Finding

	Much more emphasis than now	A bit more emphasis than now	Same as now	A bit less emphasis than now	Much less emphasis than now
EE (100%)	3.4%	13.8%	62.1%	16.1%	4.6%
EO (100%)	2.6%	9.5%	61.2%	19.8%	6.9%
Altogether	3.0%	11.3%	61.6%	18.2%	5.9%

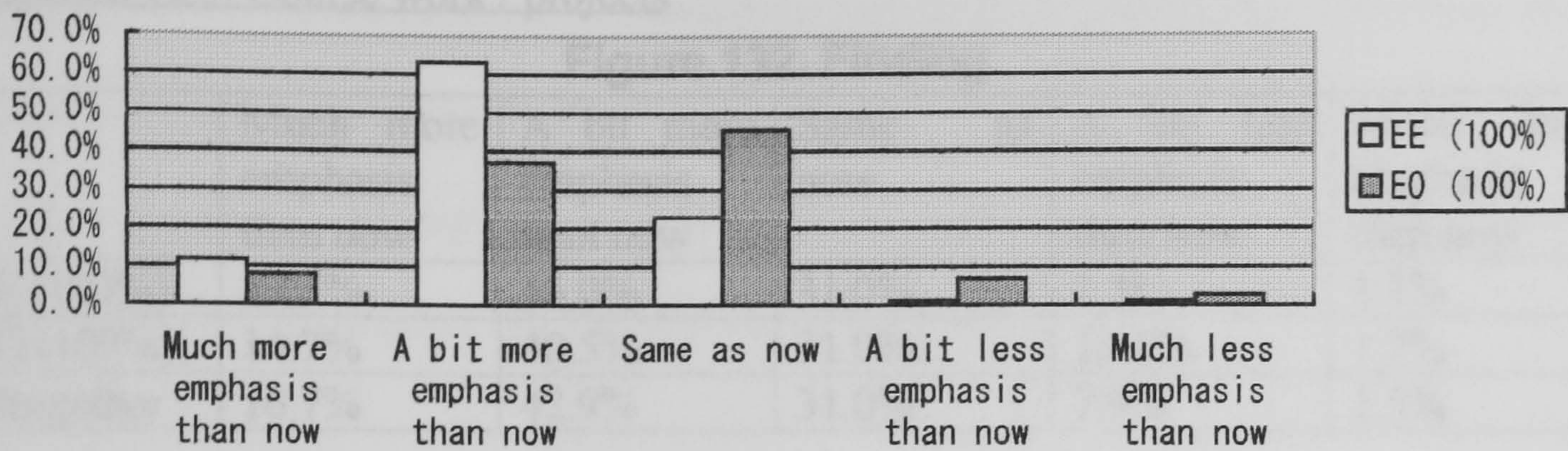


Question 12.2. Oral examination

Figure 129. Finding

	Much more emphasis than now	A bit more emphasis than now	Same as now	A bit less emphasis than now	Much less emphasis than now
EE (100%)	11.5%	63.2%	23.0%	1.1%	1.1%
EO (100%)	7.8%	37.1%	45.7%	6.9%	2.6%
Altogether	9.4%	48.3%	36.0%	4.4%	2.0%

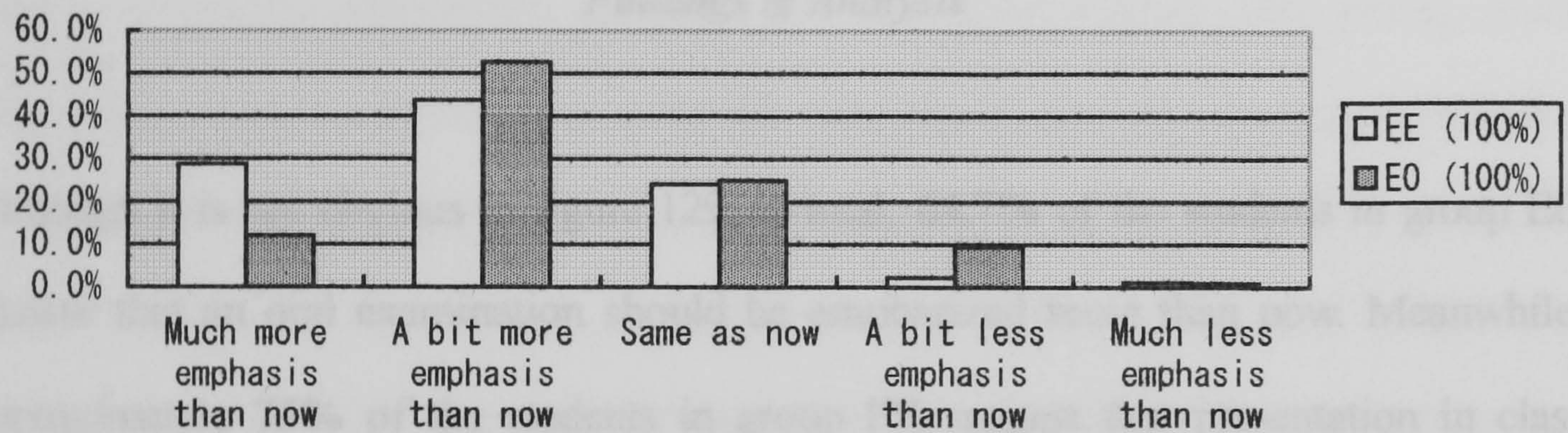
Question 12.5. Course work / projects



Question 12.3. Presentation in a class

Figure 130. Finding

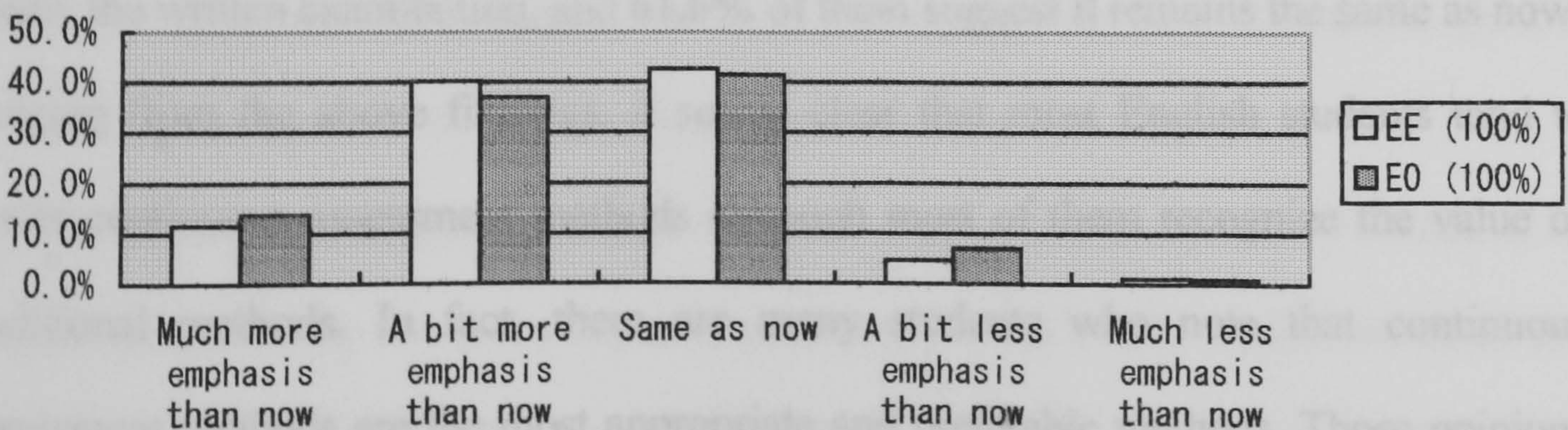
	Much more emphasis than now	A bit more emphasis than now	Same as now	A bit less emphasis than now	Much less emphasis than now
EE (100%)	28.7%	43.7%	24.1%	2.3%	1.1%
EO (100%)	12.1%	52.6%	25.0%	9.5%	0.9%
Altogether	19.2%	48.8%	24.6%	6.4%	1.0%



Question 12.4. Thesis / Research report

Figure 131. Finding

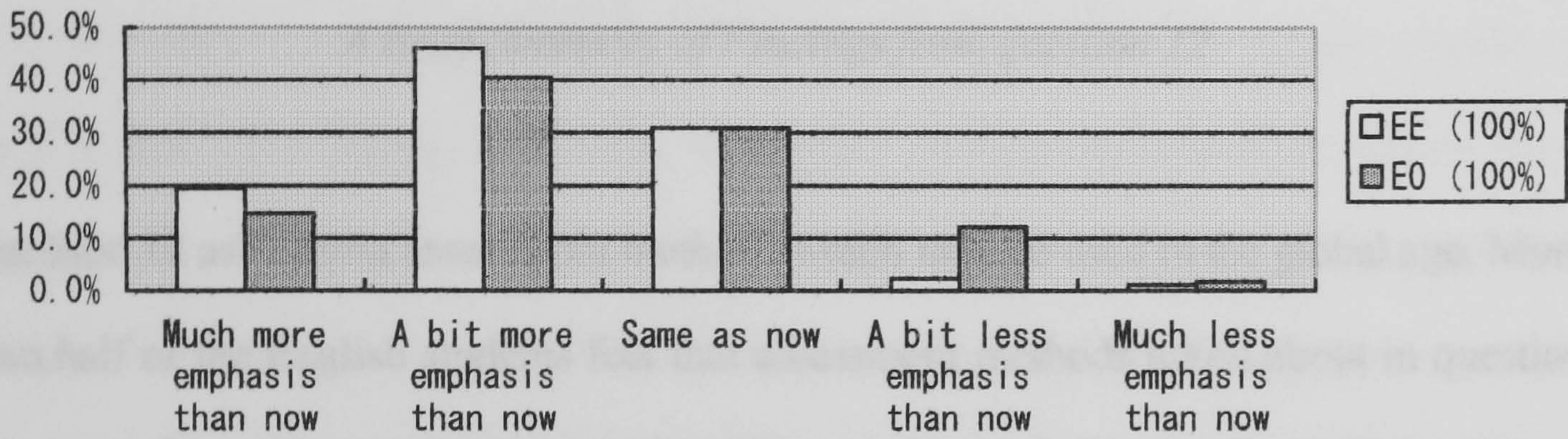
	Much more emphasis than now	A bit more emphasis than now	Same as now	A bit less emphasis than now	Much less emphasis than now
EE (100%)	11.5%	40.2%	42.5%	4.6%	1.1%
EO (100%)	13.8%	37.1%	41.4%	6.9%	0.9%
Altogether	12.8%	38.4%	41.9%	5.9%	1.0%



Question 12.5. Course work / projects

Figure 132. Finding

	Much more emphasis than now	A bit more emphasis than now	Same as now	A bit less emphasis than now	Much less emphasis than now
EE (100%)	19.5%	46.0%	31.0%	2.3%	1.1%
EO (100%)	14.7%	40.5%	31.0%	12.1%	1.7%
Altogether	16.7%	42.9%	31.0%	7.9%	1.5%



Findings & Analysis

Although it is not obvious in figure 129, in total, **64.7%** of the students in group EO answer that an oral examination should be emphasized more than now. Meanwhile, approximately **75%** of the students in group EE suggest that presentation in class should be emphasized as one of the methods of assessment. In total, **68.0%** of all English respondents answer that presentation in a class should be emphasized more than now, followed by **59.5%** of them noting that course work / projects should be emphasized more.

English students are not attracted by one of the traditional assessment methods very much: the written examination, and **61.6%** of them suggest it remains the same as now.

Judging from the above findings, it seems clear that most English students tend to prefer continuous assessment methods although most of them recognize the value of traditional methods. In fact, there are many students who note that continuous assessment methods are the most appropriate and preferable methods. Those opinions will be shown later in depth. This finding reflects the current movement in assessment

methods which values continuous assessment and credit accumulation rather than end-of-course examinations (Beck, 2000)

Lastly, in question 12, significant differences between answers and the respondents' educational background are not found by statistical tests.

A Brief Summary of Findings from question 12

Question 12 asks about assessment methods which may be used in the global age. More than half of the English students feel that assessment methods asked about in question 12 except for written examinations, should be emphasized. Above all, students seem to prefer continuous assessment methods, such as presentations and course work. Meanwhile, 61.6% of English students feel that the written examination, which is a rather traditional method, should remain at the same level.

SECTION 1.3.5. A SUMMARY OF FINDINGS FOR THE KEY QUESTION

One of the key questions, which is about students' views about education for the global age, is asked through questions 6, 8, 10 and 12. In a questionnaire, education for the global age, which is based on Delors' four pillars of education, is divided into the four main aspects of education such as the aims of education; curriculum contents; teaching methods and assessment methods. Before moving to the next section, a general summary of findings for this key question should be noted here.

First, 75.6% of all English students feel the aims listed in question 6 should be emphasized more in the global age. In addition, 71.6% of all English students are positive in emphasizing the curriculum contents listed in question 8. In these two questions, some of the findings reflect English multicultural society, and many English

students feel that emphasizing of learning about different community in their own country is very significant.

As for teaching methods, more than half of all English students answer that the teaching methods listed in question 10, except for whole class teaching, should be emphasized more. Most of all, the majority of students suggest that collaborative activities where small groups of pupils have to work together as a team should be emphasized. This finding is relevant to another finding in question 4, where many students often note that group work is very useful for social and personal development. Meanwhile, students' opinions about a teaching method using computer assisted learning packages suggest that this type of teaching could be controversial.

Lastly, more than half of the English students feel the assessment methods in question 12, except for written examination, should be emphasized. Most of all, many English students note that continuous assessment methods such as presentations and course work should be emphasized, while written examinations should remain at the same level.

On the whole, English students are basically positive in emphasizing the aims and curriculum contents which are based on Delors' four pillars of education. Moreover, students' opinions suggest potential teaching and assessment methods which should be used in the global age.

In terms of comparison, more students in group EE than group EO are often positive in emphasizing educational issues for the global age asked about in questions 6, 8, 10 and 12. In addition, it also becomes clear that more female than male students are keen on emphasizing some curriculum content items. Although it is not a main concern in this study, it might be worth noting that the current Ofsted review reports that there are two gender gaps in performance (Arnot, 2000). The gaps are found in literacy, and achievements in GCSEs. In both cases, it is officially reported that females perform

better than males. Although these gaps remain as inconclusive issues, it can be said that there might be a link between some of the findings from the questionnaire and the gender gaps in achievements in schools which are recently found. In this respect, the findings from this questionnaire, in terms of gender gap, might reflect current cultural aspects in education in England.

In the following section, another key question is examined through findings from English students.

SECTION 1.4. VIEWS ABOUT PROBLEMS OF IMPLEMENTING EDUCATION FOR THE GLOBAL AGE AT SECONDARY SCHOOL HELD BY STUDENTS AND STUDENT TEACHERS

Findings for the above yes-no questions

Findings for a key question asking students' views about problems implementing education for the global age are described in this sub section. In questions 7, 9, 11 and 13, the respondents are asked to write down their own views about possible problems in accordance with the four aspects of education.

Question 7. Do you feel problems will occur if changes in the aims of education are to be implemented?

Question 9. Do you feel problems will occur if changes in the content of the school curriculum are to be implemented?

Question 11. Do you feel problems will occur if changes in teaching methods are to be implemented?

Question 13. Do you feel problems will occur if changes in assessment methods are to be implemented?

Findings for the above yes-no questions

Although significant differences in answers from students in groups EE and EO cannot be identified by statistical tests, it will be important to show findings from the two groups in order to compare results between Japan and England later.

Figure 133. Findings from questions 7, 9, 11 and 13

<i>Questions (The four aspects of education)</i>	<i>EE</i>		<i>EO</i>	
	Yes	No	Yes	No
<i>7. the aims of education</i>	59.5%	40.5%	51.8%	48.2%
<i>9. the content of school curriculum</i>	60.7%	39.3%	50.0%	50.0%
<i>11. teaching methods</i>	46.3%	53.7%	44.3%	55.7%
<i>13. assessment methods</i>	38.6%	61.4%	36.0%	64.0%

According to figure 133, it seems that more students in group EE than in group EO

feel some problems will occur if changes in the four aspects of education are to be implemented. However, it is not as obvious as in the case of Japanese students, whose opinions were shown in chapter five, section 1.4.

In addition to the above yes-no question, the respondents are provided with an opportunity to describe their own views of possible problems as follows:

If your answer is “yes”, please outline what kinds of problems they are.

There are some patterns in problems suggested by English students, and they are divided into five categories in the same way as the Japanese version.

1. Problems for teachers
2. Problems for schools
3. Problems for pupils
4. Problems in the four aspects of education (aims, curriculum contents, teaching methods and assessment methods)
5. Problems in the social and cultural contexts

These problems are shown in the following sub sections, with detailed qualitative analysis.

SECTION 1.4.1. PROBLEMS FOR TEACHERS

English students’ comments on possible problems for teachers are frequently found through questions 7, 9, 11 and 13. The following figure shows some typical comments made by English students, regardless of the education course they are taking.

Figure 134. Findings which are relevant to problems for teachers

Questions	Possible problems*
7. <i>The aims of education</i>	“All teachers must learn new methods and it causes problems.” (10) “Staff need to be re-trained.” (5)
	“Greater workload for already stretched teaching staff.” (4)
9. <i>The content of the school curriculum</i>	“Specialized teachers need to teach specialized areas.” (4) “Teachers will need to be re-trained.” (3)
	“Teachers will not be keen on more changes and the paperwork, which is already excessive.” (3)
11. <i>Teaching methods</i>	“Some ‘traditionalist’ teachers may be reluctant to change. They are resistant to new ideas and approaches.” (4)
	“Huge amount of re-training for teachers would be involved.” (7)
13. <i>Assessment methods</i>	“Different skills will be required to assess the work.” (2)
	“All teachers must learn new methods and it causes problems.” (4)

* The researcher selected typical, representative comments. The number in parenthesis is the number of students who note similar comments.

Analysis

According to students’ opinions in the above figure, teachers will need to be re-trained. In addition, students suggest that excessive workloads for teachers will be expected. There are some students who criticize the current National Curriculum, and so-called league tables which require a vast amount of work for teachers. Although Tony Blair (the prime minister) insists that providing league tables and the inspection of schools is a significant means of raising the standard in education throughout the country (BBC, 2000), it might be true that these policies demand teachers to work excessively long hours. In the end, many students predict that teachers will resist changes because of the increase in their work.

For a solution, a student notes that the number of teachers should be increased in order to cope with the greater workload. Moreover, another student suggests that parents need to take responsibility for some of the aims.

Apart from that, there are some students who mention that some 'traditional', or senior teachers may not like changes. One student implies that changing teachers' attitudes will be a problem.

In conclusion, it is possible to say that some of the opinions about problems for teachers reflect the current severe work situation of teachers to a degree. In actual fact, reducing the overwork of teachers that exists at the moment may need to be considered first. As some students suggest, increasing the number of teachers, or reducing demands from the National Curriculum might be one of the key solutions. Nevertheless, the most important issue will be, according to students' opinions, re-training and changing teachers' attitudes towards education for the global age.

SECTION 1.4.2. PROBLEMS FOR SCHOOL

Students provided various opinions about potential problems for schools if changes are implemented in order to move towards education for the global age. In the following figure, some typical opinions noted by the respondents are shown.

Figure 135. Findings which are relevant to problems for schools

Questions	Possible problems*
7. <i>The aims of education</i>	"It will take time to successfully implement changes." (7)
	"It will cost a lot." (4)
	"Time-tabling problems." (3)
9. <i>The content of the school curriculum</i>	"Money sponsorship." (4)
	"Fitting everything into timetable." (4)
11. <i>Teaching methods</i>	"Paying for re-training of staff." (2) "Costs. Visits and work experience and computer package all cost money." (8)
	"Adequately planning and supervising the activities with classes at 30 in size are needed." (2)
13. <i>Assessment methods</i>	"It takes time." (2)
	"A lot of administrative work would need to be done and the whole system would need to be changed." (2)

* The researcher selected typical, representative comments. The number in

parenthesis is the number of students who note similar comments.

Analysis

According to the above figure, students' main concern seems to be in funding and time management. Many English students feel that changes will take time. In addition, there is a time-tabling problem to adjust to those changes.

As for funding problems, there are many opinions which especially talk about funding for computer resources in schools.

In addition, there are a few students who consider that funding problems will widen the gap between schools. For example, one of those students notes that "resources in poorer schools are low and will need more help to implement changes". In fact, one of the interviewees also mentioned this type of problem and implied how seriously it affects school education. This opinion will be discussed in depth later.

In conclusion, many students consider that problems for schools are mainly in funding and time-tabling. They also suggest that it will take time to implement some changes. As one of the students mentions, "finding the right balance" in many ways might be a key issue in order to consider education for the global age in schools.

SECTION 1.4.3. PROBLEMS FOR PUPILS

English students' opinions about problems for pupils are not very often observed through questions 7, 9, 11 and 13. Nevertheless, some of those views are worth noting here in order to clarify possible problems for pupils as well as to compare these findings with outcomes from Japanese students in the following chapter.

Figure 136 shows some of the opinions noted by English students.

Figure 136. Findings which are relevant to problems for pupils

Questions	Possible problems*
7. <i>The aims of education</i>	“Some children are always left out, or disadvantaged when new aims are implemented no matter how well thought through a plan has been.” (2)
	“Greater problems will occur if students don’t have a sense of belonging to an international society.” (1)
9. <i>The content of the school curriculum</i>	“Could overload pupils.” (1)
	“Younger generations may feel out of depth if too much globalization is forced upon them.” (1)
11. <i>Teaching methods</i>	“Access to technology for individual pupils. It could lead to a lack of uniformity in opportunity.” (1)
13. <i>Assessment methods</i>	“Perhaps pupils will have problems adjusting to methods they have not used to.” (2)
	“Shy pupils suffer in class presentations.” (1)

* The researcher selected typical, representative comments. The number in parenthesis is the number of students who note similar comments.

Analysis

There are a few important findings in the above comments. First, there is a problem in access to technology for individual pupils. As funding problems strike many schools and may cause a widening of the gap between schools, access to technology, such as personal computers, may widen the gap between wealthy pupils and others. According to students’ views, funding for schools and the social background of each pupil seem to be linked closely together. It suggests that the introduction of high technology in education and in schools has to be carefully done with the consideration of equal opportunity for all pupils.

In addition, a student comments that pupils need to have a sense of belonging to an international society. Another student says that if too much stress on globalization is placed in education, it will be beyond pupils’ imagination (see figure 136). These remarks may suggest that it will be important to start to develop pupils’ awareness of an international society, by looking at immediate issues.

In conclusion, there are a few possible problems for pupils raised by the respondents.

Some problems link to social issues, and some are related to pupils' attitudes.

SECTION 1.4.4. PROBLEMS IN THE FOUR ASPECTS OF EDUCATION

There are many critical as well as sympathetic opinions about the four aspects of education for the global age. In this section, problems in the four aspects of education noted by English students are shown.

Figure 137. Findings which are relevant to problems in the four aspects of education for the global age

Questions	Possible problems*
7. <i>The aims of education</i>	"It is impossible to implement such large scale changes over such a broad education system." (4)
	"Although emphasis on 'world culture' is important, it is likely to be seen as not commercially viable. The emphasis in schools at the moment is all about making pupils into moneymakers." (1)
9. <i>The content of the school curriculum</i>	"More time required to learn more subjects." (3)
	"Curriculum doesn't have much space for them. Some subjects may get pushed out." (6)
11. <i>Teaching methods</i>	"Half of them will be impossible to implement in a productive way. Individual work is great but is it practical?" (1)
	"Not as much computer based learning. I know from experience that it is far more efficient to have personal teaching." (1)
	"Collaborative activities need more staff to be constructive. Activities which take place outside school will be especially good placements for year 10/11 pupils who do not want to do A-levels later." (1)
13. <i>Assessment methods</i>	"How to judge oral, presentation, and coursework." (4)
	"Ensuring standards are maintained nation-wide." (7)

* The researcher selected typical, representative comments. The number in parenthesis is the number of students who note similar comments.

Analysis

First, in the aims of education, four students argue that it will be impossible to

implement large scale changes. This may suggest that more slimming down in the aims listed in question 6 needs to be considered.

Another student mentions that some of the aims do not match some of the targets which are set by the current government policy. As previously described in chapter 1, section 2.2 and chapter 3, section 1.3, the government policy emphasizes lifelong learning as vocational training. According to the student's description, this tendency seems to apply not only for adults but also for the young people in secondary schools. This remark reflects the current educational policy in England, and some of the aims in question 6 will face practical difficulties in order to be introduced.

As for the curriculum contents, there are many students who note that the current curriculum has no space for the contents listed in question 8. As students mention, some subjects may need to be abandoned or combined together. For further study, finding the balance between changes and the present situation will be one of the key issues.

Apart from that, there are a few critical comments about some teaching methods listed in question 10, although many students basically support those methods. For instance, one of the respondents, who has experience of working as a teacher, suggests that half of the teaching methods listed in question 10 will be impossible to be implemented in a productive way. Meanwhile, another student tries to find out effective ways in some teaching methods as can be found in figure 137.

Lastly, in assessment methods, a difficulty in oral examination, presentation and coursework is suggested. Comments in the above figure imply that the assessors will have to be careful in order to judge students using those methods. In addition, many English students frequently mention standardization of the assessments among different schools in the country. Although the detailed discussion will be described in another section, which is about the qualification system in England, this remark may reflect one of the educational issues in assessments in England.

In conclusion, English students' comments suggest that more careful considerations are needed in some points in the four aspects of education.

SECTION 1.4.5. PROBLEMS IN SOCIAL AND CULTURAL CONTEXT

Lastly, English students note their views suggesting that problems will arise from their social and cultural context. The following figure shows English students' opinions.

Figure 138. Findings which are relevant to problems in social and cultural context

Questions	Possible problems*
7. <i>The aims of education</i>	“England has a very insular world view, I think that it will be difficult to do a global approach.” (1)
	“Need to be implemented in a sensitive way, for many pupils may be affected by attitudes at home of the older generation.” (1) “Parents may disagree with attitudes such as the world being a common home to us all.” (1)
9. <i>The content of the school curriculum</i>	“Confusion for too many changes.” (3) “People are sick of changes already. Most teachers now view changes with suspicion.” (3)
	“Parents attitudes towards some subjects.” (1)
11. <i>Teaching methods</i>	“Parents would be concerned that their children are not learning the same things as they did.” (1)

* The researcher selected typical, representative comments. The number in parenthesis is the number of students who note similar comments.

Analysis

First of all, one English student sees the problem as existing in their own world view. According to him, English people have very ‘insular’ views, so that it will be difficult to implement education which contains international issues. Another student remarks that “there will be problems in terms of changing teachers’, parents’ etc

attitudes to education. They may not agree with such changes.” Although the detailed information will be discussed later, there are also some teachers who mention that rather insular attitudes may be one of the features of English people. These remarks illustrate that changing English people’s insular views may be one of the social and cultural problems of England to implement education for the global age.

Meanwhile, some students mention that the curriculum contents have been changed too often, hence many people are now skeptical of any changes. In fact, after the 1988 Education Act, small but frequent changes in the curriculum have been introduced, such as the Dearing Report of 1993, and yet another change in the curriculum will be implemented from 2002. When compared with Japanese education, which has experienced few changes since world war two, it may be possible to say those frequent changes in education are closely connected with social and cultural problems in England.

Some educators claim that these frequent changes might cause not only confusion but also excessive social demands to schools and teachers. In fact, schools and teachers have often been held responsible for a wide diversity of issues in Britain, such as falling academic standards and the national economic decline (Beck, 2000; also see chapter 1). As a result, it is said that the image of the teaching profession by the public is damaged. This type of issue seems to be well recognized by English students, and one of the English students who undertakes the PGCE course notes that “the government should do something to make the teaching profession more attractive (salaries and respect)”.

Lastly, throughout questions 7, 9, and 11, many English students mention parents’ attitudes. (The term ‘parents’ can have a wide range of meanings. It can be ‘people’, ‘the public’, ‘nation’, ‘the English’, ‘the majority’, and almost anybody, as meaning those who consist of English society and culture. When it comes to academic analysis, the term ‘parents’ could vary and be difficult to define precisely.)

Although it is only the researcher's hypothesis, students' identification of 'parents' in this section may represent a rather negative part of English society and culture. For example, those 'parents' could have rather negative ideas about the minority groups in their own country, or could have more insular world view. In the above figure, students' opinions may illustrate anxiety to those parents. In this respect, parents' attitudes can cause one of the social and cultural problems in implementing education for the global age.

In conclusion, there are some views which describe problems in social and cultural contexts. These issues can one of the main issues of English society and culture, and should be considered carefully in order to prepare pupils for the global age.

SECTION 1.5. VIEWS ABOUT CURRENT EXAMINATION SYSTEM HELD BY STUDENTS AND STUDENT TEACHERS

In England, there are no "entrance examinations" which are exactly equivalent to Japanese entrance examinations to university, although there are some additional tests prepared for the prestigious universities of Oxford and Cambridge. Nevertheless, in England, there are national qualifications such as GCSE for those who have attended secondary school and GCE A-level for those who continue their education at university. In this study, these qualifications are seen to be comparable with the entrance examinations.

Accordingly, in the questionnaire for English students, questions asking about students' views of GCSE and A-levels were prepared. The detailed interpretation for this arrangement has been addressed in chapter 4, section 2.2.2.

In this section, English students' views about these two examinations are described at the same time. Although they are two independent examinations, it is appropriate to show findings simultaneously in order to grasp the students' general idea about

the examinations system in England, as well as to clarify the differences between England and Japan.

In the questionnaire, students' views about GCSE are asked about in question 14, followed by question 15 which asks students' views about A-levels. First, statistical analysis is shown in the following sub section. The following figure shows findings for these questions noted by students in groups EE and EO.

Question 14. Do you think GCSEs should change in the global age? If your answer is 'yes', please outline how.

Question 15. Do you think A-levels should change in the global age? If your answer is 'yes', please outline how.

Figure 139. Findings

<i>Questions</i>	<i>EE</i>		<i>EO</i>		<i>Altogether</i>	
	Yes	No	Yes	No	Yes	No
<i>14. GCSEs</i>	54.2%	45.8%	47.2%	52.8%	50.3%	49.7%
<i>15. A-Levels</i>	69.0%	31.0%	42.5%	57.5%	54.2%	45.8%

Analysis

According to the above figure, over a half of the English respondents feel both GCSEs and A-levels should change in the global age. Strictly speaking, more students in group EE than in group EO are positive that A-levels should change, and the significant difference between these two groups in question 15 has been found by the chi-square test ($X^2 = 13.35$, $df = 1$, $P < 0.01$).

In the following part of the two questions, students are asked to outline how GCSEs and A-levels should change in the global age. What should be noted here is that students who do not feel GCSEs and A-levels should change also provide their opinions in this part. Accordingly, in the following analysis, those students' opinions

are also mentioned.

In the following qualitative analysis, English students' opinions are basically divided into three categories regardless of each student's background.

1. Opinions which suggest how to change
2. Opinions which do not suggest changing
3. Opinions which mention changes for the global age

Although these categories are slightly different from the ones in Japanese cases shown in chapter 5, section 1.5, they will be appropriate to provide further discussion in a later chapter.

Analysis

First, there are many opinions provided by English students which suggest change to both GCSEs and A-levels. The following figures show some of the typical views noted by the respondents.

Figure 140. The most frequently observed opinions suggesting how to change GCSEs

	OPINIONS*
1	“They should include more course work, research projects.” (15)
2	“All pupils should complete examination from the same examining board, since it's different in places.” (13)
3	“They should become more modular, flexible and relevant.” (9)
4	“Wider choices of subjects and different levels more suited to different abilities.” (5)
5	“More practical, vocational subjects, alongside with traditional ones.” (4)

* The number in parenthesis is the number of students who note similar opinions.

Figure 141. The most frequently observed opinions suggesting how to change A-levels

OPINIONS*	
1	“Students should not specialize quite as much. There is a plenty of time at university to specialize. A broader, more liberal syllabus should be covered. More flexibility, choices.” (30)
2	“A gap between GCSEs and A-levels should be removed.” (7)
3	“Reflect changing usage and knowledge in the world.” (6)
4	“They should be standardized.” (4) “You should have one syllabus for the whole country with one exam, as some boards are more challenging than others. This would put everyone on an equal footing.” (1)
5	“More choices link with industry, business and professions.” (3)

* The number in parenthesis is the number of students who note similar opinions.

First, in the case of GCSEs, 15 students comment on assessment techniques. These students suggest that more assessment should be placed on course work and research projects, which can be categorized as continuous assessment. This finding links with findings from question 12, described in section 1.3.4. In addition, this finding matches with some educators’ opinions which suggest an emphasis on continuous assessment rather than end-of-course examinations (Beck, 2000).

Secondly, 13 students mention the administrative issue: the examination boards. As previously described in chapter 1, there are five examination groups for the GCSE test in England. One of the students says GCSEs can be very “unfair”, since it is different in different places.

Other opinions about GCSEs are basically relevant to the content. Many students suggest that they should be more modular, flexible, give choices and be practical and vocational. In fact, these issues are also supported by many progressive educators, who are called ‘curriculum modernizers’, according to Beck (2000). Those supporters make some suggestions which need to be developed, and the following remark is one of them:

“modular course structures and extended student choice, which enable students themselves (rather than academic ‘experts’) to structure their own curriculum in ways that are personally relevant.” (Beck, 2000, p. 20)

Meanwhile, there are a few students who make detailed suggestions how to change GCSEs and A-levels. One student says “Perhaps make people do five compulsory academic GCSEs. Then choose a non-academic / practical course or a further five academic GCSEs”. As for A-levels, another student remarks “Perhaps rather than only doing three subjects, pupils should have the option of doing more, in shorter formats e.g. five subjects with modules taken at the end of each term”. These suggestions are made by students both in groups EE and EO, and they may be helpful to consider an appropriate format of GCSEs and A-levels in the global age.

Apart from that, students’ opinions about A-levels are provided in figure 141. In the similar way to GCSEs, there are many students who suggest that A-levels should be broader, more flexible, and vocational. There are two students who note that “A-levels should become three/four subjects to six subjects”. These suggestions are also noted by several progressive educators, and Beck (2000) comments that the impact of these suggestions starts to be reflected in A-levels. The detailed information has been addressed in chapter 1, section 2.3.

In addition, there are other practical opinions provided by English students in question 15. First, seven students point out that the gap between GCSEs and A-levels should be removed. This type of opinion may be significant since it represents views of the students who take the examinations, and may not be found by the assessors.

Lastly, students have mentioned another administrative issue. four of them claim that A-levels should be standardized. This type of issue, including the case of GCSEs, could be one of the cultural issues in England, where each county has been under the control of LEAs for a long time.

Before moving to the next category, it is worth noting that there are two students who mention that the A-level is a kind of social issue. One of them describes A-levels as “they are, after all, the gold standard of the middle classes, and used as a filtering system to remove those who shouldn’t go to university”. This remark describes A-levels as not only just an examination but strongly connected with social status, and this can be one of the social issues of English education.

Apart from the above opinions which suggest how to change, there are a few opinions which do not suggest changes to both GCSEs and A-levels, provided by some of the students who answer “no” in the first parts of questions 14 and 15. Some of those opinions are shown in the following figure.

Figure 142. Opinions which do not suggest changes to GCSEs and A-levels

OPINIONS*	
1	“Current system of specializing at A-level should be continued to a certain extent. More depth to each subject.” (4)
2	“A wider range of subjects should be available, but still follow the current structure.” (1)
3	“I think they don’t have to change. I think there is plenty of basis to say that they should function as they are. If basic skills are learnt at GCSE level then specialization should be encouraged.” (1)
4	“Don’t have to change. Three subjects are sufficient.” (1)

* The number in parenthesis is the number of students who note similar opinions.

According to the above figure, those students who believe GCSEs and A-levels should remain the same as now seem to provide very different views from other opinions shown in figures 140 and 141. For one reason, a student remarks “A minimum knowledge of many subjects is helping no one, but an in-depth knowledge of a few subjects creates a confidence in the learner”. In their opinion, specialized knowledge may help probably both academic achievements in university and acquiring specialized jobs, such as engineers and lecturers. In other ways, these opinions lead to further discussion of the balance between what to change and what

not to change.

Lastly, a lot of opinions which mention changes in GCSEs and A-levels to prepare for the global age are noted by English students. The following figure shows some typical ones.

Figure 143. Opinions which mention changes in GCSEs and A-levels for the global age

GCSES*	
<i>1</i>	“More a broad range of subjects, addressing more international issues.” (4)
<i>2</i>	“If International General Certificate of Secondary Education and International Baccalaureate (IB) are introduced, qualifications are standardized globally allowing greater opportunities for work and study in other countries.” (4)
<i>3</i>	“More emphasis on making foreign languages compulsory.” (2)
<i>4</i>	“Probably should incorporate a wider world skills approach, ie. skills that are appropriate to life in a global context, rather than consist of entirely academic material.” (1)
<i>5</i>	“If it is really a truly global age, GCSEs will have to be an equivalent qualification to all other age 16 qualification.” (1)
A-LEVELS*	
<i>1</i>	“Should be slightly less specialized, and give wider range of knowledge, like IB.” (7)

* The number in parenthesis is the number of students who note similar opinions.

According to the above figures, there are many English students who feel both GCSEs and A-levels need to be a globally standardized qualification such as IB. In fact, the current English government proposes a certificate which is closer to the International Baccalaureate as already described in chapter 1, section 2.3. These students’ views well reflect the current movement of English education, and this type of educational movement could be one of the steps to education for the global age.

There are also other opinions which suggest that content including international issues should be included. Compulsory languages are also mentioned as one of the methods to move education towards the global age.

In conclusion, English students provide various opinions about GCSEs and A-levels.

They range from administrative issues to the content which includes international issues. Those opinions not only reflect cultural issues in English education but also provide further discussion for education for the global age. They also may make a good contrast with findings from Japanese students, which will be described in a later chapter.

SECTION 1.6. VIEWS ABOUT HOW SECONDARY SCHOOLS SHOULD CHANGE IN THE GLOBAL AGE HELD BY STUDENTS AND STUDENT TEACHERS

The final question is about English students' views of how secondary schools should change in the global age. In order to compare with Japanese findings, English students' views are categorized in the same way as the Japanese research.

1. Curriculum content
2. Aims of education
3. Assessment methods
4. Teaching methods
5. Teachers
6. Parents
7. Schools
8. Others

First, frequently observed opinions about curriculum content are shown in the following figure.

Figure 144. Opinions about curriculum content

OPINIONS*	
1	“More communication skills, including IT.” (20)
2	“More life skills, such as social and personal skills.” (11)
3	“Broader curriculum subjects.” (6)
4	“Greater emphasis on languages.” (6)
5	“Vocational courses, which have equal value to academic.” (6)

* The number in parenthesis is the number of students who note similar opinions.

Many English students mention an emphasis on communication skills including IT, and foreign languages. For one reason, many students often consider it is needed for international understanding, since pupils will have more opportunities to live and work abroad.

There are also many students who note life skills should be emphasized. In this type of opinion, many students note that more “community” involvement in secondary school education should be provided. Moreover, in this type of opinion the term “community” includes a wide definition, from local to international.

As for vocational courses, six students note that they should be emphasized, and need to be given the same value as the academic courses. In other words, this may indicate that there is a view that less value is placed on vocational courses and qualifications than on academic ones. In fact, this type of opinion is often mentioned by English teachers, and it will be shown later.

Secondly, opinions about the aims of education for the global age are noted as follows:

Figure 145. Opinions about the aims of education

OPINIONS*	
1	“Citizenship education.” (9)
2	“Pupils should be made more globally aware. e.g. pupils should learn more what is around them.” (4) “Pupils should be aware their futures will be far more global than before. So it’s important they see themselves in terms of a member of a large community rather than just individuals. They need a greater knowledge and understanding of other cultures.” (8)
3	“Pupils need to be more aware of the world around them. This is the way to avoid racism.” (2)
4	“While retaining a sense of national cultural identity it should seek to further the understanding of world issues and cultures. Should shift focus from academic skills to joint academic / life skills.” (1)

* The number in parenthesis is the number of students who note similar opinions.

Citizenship education, which could be one of the aims of education for the global age, is strongly supported by nine English students in the survey. In fact, citizenship education will be compulsory after the introduction of the new curriculum in 2000 (see chapter 1).

In other opinions, many students note that pupils should be more globally aware. According to some of those students’ views, global awareness will help to avoid racism. In English society, which is more multicultural than Japanese society, racism may be one of the significant social issues to be considered. Those students’ opinions suggest that the aim of “learning to live together” is one of the significant issues to be emphasized in the global age.

Meanwhile, a few students note their opinions about assessment methods. Four students imply that more emphasis on continuous assessment should be provided. This opinion links with findings from question 12, which are described in section 1.3.4.

As for teaching methods, there are a few students who suggest greater use of technology. One of the students suggests having sessions through high technology and the Internet with another class across the world, which may sound rather

exciting and unrealistic. However, in fact, this type of teaching has already been implemented in some countries, including between England and Japan (MacLeod, 2000). Exchange learning through high technology could be not only implementing the aim of “learning to live together”, but also a replacement of exchange visiting to other countries. Although financial and other problems may remain, some of teachers who have been interviewed for this study comment that this type of teaching and learning will be increasingly popular.

Opinions about teachers and schools are mostly the same as findings from 1.4.1 and 1.4.2. In any case, most students mention flexibility as one of the key issues.

As for opinions about parents, there are a few students who note parents’ understanding for preparing for the global age, especially learning foreign languages, is inevitable. This type of finding is already examined in section 1.4.5.

Lastly, other opinions about secondary school education in the global age should be noted here.

Figure 146. Other opinions

OPINIONS*	
1	“Perhaps by separating religious study from personal development, as many schools currently discuss environmental issues, abortion etc in RE, when a separate lesson might be more helpful.” (1)
2	“Theology / Religion lessons should educate widely and respect the country’s different religions, and discussion of contemporary moral issues helps to make children aware of issues and that those issues affect them. Perhaps a lesson could be incorporated into the curriculum to highlight social, moral, economic and environmental issues – perhaps getting students involved in changing their local community and the world through projects, letter writing and community service.” (1)

* The number in parenthesis is the number of students who note similar opinions.

The above interesting opinions are found in RE. As previously mentioned in section 1.2, RE would be one of the controversial issues in English education. As suggested in the above figure, RE needs to be considered carefully to prepare pupils for the

global age.

In conclusion, findings from English students not only reflect social issues in England but also provide perspectives to better prepare pupils for the global age. In the following section, findings from English teachers at secondary schools are described.

SECTION 2: PRESENTATION AND ANALYSIS OF THE INTERVIEW DATA FROM ENGLISH TEACHERS

In the same way as the research in Japan, interviews with English secondary education teachers (group F) were conducted as follow-up research. Questions asked in interviews are the same as for the Japanese research (see chapter 5, section 2) in order to clarify similarities and differences of teachers' views in the two countries. In the following sub-sections, findings from the teachers are described.

SECTION 2.1. BACKGROUND INFORMATION AND QUESTION 1

As previously described in chapter 4, section 2.3.2, 21 teachers at six secondary schools and one Sixth Form College in York were interviewed from February to July 2000. Figure 147 provides some information about the respondents.

Figure 147. Background information of the respondents

ALTOGETHER: 21	
Gender	Male: 13 (61.9%)
	Female: 8 (38.1%)
Subjects (of which 1 unknown)	English: 1 (5.0%)
	Science: 2 (10.0%)
	Mathematics: 4 (of which 1 teachers ICT either) (20.0%)
	Geography: 3 (15.0%)
	History: 3 (15.0%)
	Languages (including Latin): 4 (20.0%)
	Economics: 1 (5.0%)
	Music: 1 (5.0%)
	Physical education: 1 (5.0%)
The teaching records (years) (of which 1 unknown)	Shortest: 1 year Longest: 37 years Mean: 14 years

Although the interviews were unable to cover all subject teachers, this may not cause difficulties of comparison with findings from the Japanese. In fact, some subjects such as Music and Physical education will make a good contrast with the Japanese findings. In addition, the teaching records of English interviewees range widely, which enabled the researcher to explore influences of teaching experiences.

Question 1. What do you imagine is meant by “a global age”?

English teachers’ images of ‘a global age’ are mainly divided into three aspects. First, almost all English respondents illustrate ‘a global age’ with the word “communication”. Many English teachers believe people will witness increasing communication between nations across the world, with the development of “technology”, “the Internet”, and increased experiences through “travel” in a global age.

Second, five teachers interpret the global age as “a shrinking world” or “a smaller world”, because of the increasing communication between countries, and people will

know other cultures and countries better.

Third, another feature of a global age, according to English teachers, is the emergence of issues at “a global scale”. For such issues, many teachers mention environmental issues and a global economy. Some teachers say, because of increasing awareness of these issues, people will become more interdependent and interactive in a global age.

The following quotation from one Geography teacher generalizes the above three aspects of a global age mentioned by English respondents.

“We have talked about it in Geography for a long time. About the shrinking world, in terms of transport developments, in every way closer and closer, and improving links in that way. I think there’s also the new IT in practice, you know, really the use of the Internet about that. Everybody is a phone call away, the video conferencing, and all aspects of it. And I think it’s also the sort of, like, the consequences, aspects of it. Because, more and more, decisions you take in one country affect the entire globe. So you have got to make global decisions and have global plans, for example, for pollution, for the economic development for trade.”

The conceptions of ‘a global age’ described by the English teachers are basically the same as the researcher’s view described in chapter 2 section 1. Although the following questions are asked based on individual teachers’ images of a global age, it is possible to state that the basic definition of a global age is the same as the researcher’s view.

SECTION 2.2. TEACHERS’ VIEWS ABOUT EDUCATION FOR THE GLOBAL AGE AT SECONDARY SCHOOL

In this section, teachers’ views about education for the global age at secondary school are described. In interviews, questions 2 to 5 are about this key research

question.

2.2.1. THE AIMS OF EDUCATION

Question 2 asks about the aims of education for the global age as follows.

Question 2. Do you think the aims of education for secondary schools should change to better prepare pupils for the global age? If so, how?

In the case of English teachers, many of them see that changes in the aims of education are actually happening to prepare for the global age. In fact, changes which many English teachers have mentioned cover Delors' four pillars of education; learning to know, learning to be, learning to do and learning to live together.

In addition, most teachers are aware of a need for changing aims, because of the global economy. One teacher said "whether or not people want it, we will be forced to do that [change]".

According to teachers' views, the aims are, and will be changing through developing more ICT skills, through emphasis on PSE and RE, through new citizenship subjects.

In practice, in the case of ICT, many schools work hard to provide as many personal computers as possible, although there is a gap in budget between schools.

Among these changes, some teachers mention two main aims which should be strongly emphasized in England. First, pupils should be more knowledgeable about what is going on in the world. A few teachers mention changes in the role of history courses for these types of aims. At the moment, according to one teacher, the content of history courses "still tends to be sort of country centered". These teachers imply that a greater introduction of world history into courses in order to learn about other

countries and cultures is important. Some teachers mention that school exchange programmes will also help pupils to have broader views and to avoid insularity.

Second, many teachers mention that foreign language education should be more emphasized. The following quotation describes a problematic situation of foreign language education in England.

“We are fortunate and unfortunate in the same way living in England, because our students speak English and English is the language globally used. First because of the English Empire, then, of course, because of the American Empire. So English became a common language in commerce and business. And it gives our students an advantage. But it also disadvantages them and it makes them lazy that they will not learn other languages. And I think you learn much more about people, countries, if you speak the language. So in England we have the particular problem that we need to get the message over.”

In fact, the above remark matches findings from English students, which are described in section 1.2, figure 94. In order to prepare pupils for the global age, learning foreign languages is crucial for both understanding of other cultures and the means of communication (see chapter 3, section 1.1). Nevertheless, in England it becomes a more complicated issue, since their native language is spoken in many countries as if it is a global common language. This type of view from teachers reflects educational issues particularly found in England, and the above two issues will be key concerns for education for the global age in the case of England.

Apart from the above changes, there is another opinion which is worth noting here. One teacher, who has taught languages for two years, has rather critical views about education for the global age, mentioning the reality many teachers confront.

“I think at the moment the aim for most secondary schools is just to get pupils through the GCSEs. A lot of the other things are not taken into

consideration, because schools are driven by targets and league tables. So you are not thinking about the wider issues at all, mainly because the government sets so many targets, because of the inspections and everything. So the aims would have to change to prepare pupils better for the global age. In practice, I can't see it's happening at the moment, because of all the other things demanded of schools.”

The above remark reflects one aspect of the reality of secondary school education in England. It should be noted that this type of view is often found in the Japanese research, since most Japanese students and teachers see secondary school education as a preparation for the entrance examinations to university (see chapter 5).

2.2.2. CURRICULUM CONTENT

Question 3. Do you think the curriculum content taught in secondary schools should change to better prepare pupils for the global age? If so, how?

For this question, more than a half of teachers answer “yes”, while some of the others answer “it is actually changing.”

Some teachers believe the curriculum content taught in England is changing with the new National Curriculum to be implemented by September 2000, and this change moves towards the global age.

Under the new national curriculum, students will take a broader range of subjects, and develop broader rather than specific knowledge. A few teachers mention that with citizenship education, pupils will be aware of their role in the nation state and within the European Union. One teacher predicts “Perhaps in 30 years time or towards then you are talking not about citizenship in your own country but global citizenship”.

Apart from the new subject, many teachers expect some changes in subjects such as history and geography. As previously noted, a few teachers criticize those subjects

which concentrate very much on the past developments of England. These teachers believe world history and world geography will be learnt about more.

In addition, there are some teachers who believe more Internet based projects, and more school exchanges should be emphasized.

In any case, most teachers feel the curriculum content is changing to prepare pupils for the global age, although some more consideration will be needed in some subjects.

Meanwhile, there are a few opinions which should be noted here. One teacher believes the entire conception of the curriculum taught in schools needs a radical change as follows:

“In England we are still using a system, we are still using the content that was designed to run an Empire. You know, to produce clerks, people who could keep accounts, and ledgers.I think we need to be looking at ways in which to make our curriculum much more relevant to the needs of the modern youngsters. I think computers need to be a much larger element and not only computers for what it will do in terms of analyzing and recording data, but what it will also do for you in terms of enriching your life in terms of culture and leisure so on. I think we should be looking to enrich people’s lives in those sorts of ways in a social way, rather than in this sort of headlong pursuit, that we seem to have in this country at the moment, of knowledge, for the sake of knowledge. It seems to me to have reached almost the proportion of the pub quiz. You’ve got to know, “who is a king of England in 1142?” It’s petty, and it’s no longer necessary. The curriculum should be looking now to enrich people’s experiences. And therefore should be moving away from the traditional things to giving people a chance to meet together, to talk, to produce a presentation.”

The above rather progressive point of view provides a radical idea for possible education for the global age. On the other hand, another teacher has more practical view and criticizes the interference and demands from the government with the

National Curriculum.

“They [the government] want us to put in citizenship now, don’t they? Nice, good idea! ‘In secondary education, more sport. There isn’t enough sport. There aren’t enough languages.’ How do we do this? I don’t think we can.”

This remark shows, in the case of England, how interference from the government seems a very serious issue for teachers. In addition, it may be possible to say that it illustrates how hard it is to shrink the gap between theory and practice for teachers. This finding also reflects students’ views about teachers, who have excessive workloads with the National Curriculum (see section 1.4.1.).

2.2.3. TEACHING METHODS

Question 4. Do you think the teaching methods in secondary schools should change to better prepare pupils for the global age? If so, how?

As for teaching methods, many teachers answer that this is changing, and evolving. In addition, 14 out of 21 respondents, regardless of their teaching subjects, mention teaching methods using ICT and the Internet.

Some of teachers provide actual examples using the Internet and technology. One geography teacher tries to communicate with people in Australia by e-mail for a research project. Another geography teacher reports he has organized a live video conference with students in Finland. One language teacher refers to a news article about exchange lessons through e-mails between schools in Japan and England, and says interactive learning between countries using high technology like this will be increasingly popular in the global age.

Moreover, some teachers discuss one step further in teaching methods, which is

based upon a usage of high technology. They mention that it will be important to teach how to use the abundant resources provided by the Internet. The following quotations show their opinions:

“I think if there was more technology available, teaching methods would be affected by technology such as interactive learning. And I think if there is a teaching method that allowed children to do more research themselves, and teach them how to research, that would be better. That would lead them in the right direction for the skills they have to have.”

“Instead of everybody writing it down in their exercise books, what you should have is a group of people producing a presentation. You know, where they have to co-operate, where they have to negotiate, where they have to select material and then they produce a presentation and once they’ve done that it goes in the bin, and you move on to the next one. If I want to know any information, what do I do? I press a button on the computer. It tells me, so there is no need for me to remember it now. And I think we need to be moving away from content for the sake of content to methodology. Instead of teaching history from the point of view of we are going to learn a list of dates and list of events; Let’s show people how to do simple research, rather than just teaching content. So I think we’ve got to move away from [that].”

Meanwhile, a few teachers imply that there are certain basic teaching methods which do not need to change. In this case, none of them mention which subject, and at what stage those “certain basic teaching methods” should remain the same.

For one thing, one of the basic teaching methods such as rote learning should be kept in order to develop certain basic knowledge.

In addition, as one teacher who has taught for 18 years says “the most important thing is a relationship between teachers and students”, some traditional teaching styles may not have to change even though computers can be an enhancement.

Nevertheless, even those teachers who imply some teaching methods should remain the same recognize the value of ICT, and the Internet. To sum up, almost all of the

English teachers feel the great impact of high technology and its utility in teaching methods.

2.2.4. ASSESSMENT METHODS

Question 5. Do you think the methods of assessment in secondary schools should change to better prepare pupils for the global age? If so, how?

Teachers' views about assessment methods are mainly divided into three types of opinions. Some teachers believe "they are actually changing", and other teachers answer "they should change", while the rest of them are "not sure" about this question.

One of the teachers who is not sure about changing the methods of assessment sees they won't change at the basic level of education as follows:

"I am not sure, because we assess them on their reading skills and writing skills, so that would probably be the same. Because we check their spelling....we probably still assess them and judge their progress in the same way."

Another teacher who has taught for two years expresses critical opinions about changes in the methods of assessments:

"I don't really know how you could do that. I mean, at the moment the method of assessment is just really the GCSEs. And I think as you go further up the school than you do tests or end of year exams but I don't know how that could change really to prepare them for the global age really. Unless you assess them on different subjects like how well you can use computer, then it's very hard."

In fact, there are some aspects of education which cannot be assessed numerically as

one of the teachers answers as follows:

“There are a lot of things you can’t assess. Citizenship, you can’t really assess. Mathematics, perhaps, “20 times 3 is 60”. Well yes, you can do it. But not “are you a better person by having gone through the question”? It is not quite the same, is it?”

Meanwhile, teachers who believe the methods of assessment need to change suggest some possible ways of changing. First, for some teachers the assessment should be more internationally comparable. Those teachers believe the current assessment methods in England could move towards the International Baccalaureate, which is used in some European countries. Secondly, some other teachers assume that on-line assessment might be increased. Lastly, many teachers feel that assessment should be moving to continual assessment and look at more course work. One teacher who has taught for 31 years questions the fundamental role of assessment. In the following quotation, he criticizes the current assessment method in schools which often depends on written examination. He provides some more practical example for possible ways of changing, and addresses how coursework based assessment could identify individual ability and skills which he believes are genuinely needed in a modern society.

“I am not altogether clear that a two and half hour examination paper, where you have to learn, and regurgitate information for the sake of it, is actually a test of anybody’s ability at all. It is simply a test of whether you have got a good memory or whether you spent half an hour, in the way you learned your tables or whatever. I think that assessment needs to move to more of the coursework type of approach. But also if you want to check that, then you give people a task and you say to them, “right, in three weeks’ time you will be put in a room, with whatever materials you need, and you will then in six hours produce a finished product.” And that’s the way we all behave when we get into work. If, for example, [the

headteacher] wants me to do something, she will say to me, “oh, we want to set up a learning centre, will you go away, and will you come back with a plan in a month’s time”. Then I go away and do the research, I read, and I talk to people and I put something up and alter it. And then I have a finished product. She’s not said to me, “right, in two and half hour’s time, with a piece of paper, and your mind”. You see, I think we need to be much more sophisticated. Particularly as well, with children, probably from the lower socio-economic background, where there is not parental pressure, and there isn’t peer pressure even to necessarily perform well in education. Yet there are some very able kids out there, who, if you give them a practical problem, they will sort it for you. And who even in an academic way, will be able to produce you something that is quite deep and meaningful. Yet if you sit them down for a half an hour, two sentence question they haven’t got a clue. So I think assessment needs to become much more user friendly, rather than assessor friendly. It’s easy to mark. It’s easy to mark an exam question, you know. But I mean to actually sit down and to look at what somebody’s produced over a period of time to analyze the thought process. It’s much more difficult. But I think it would mean that a lot of children who are now condemned to, not meaningless tasks, but thankless tasks, because they are deemed to be ‘thick’ for want of a better word could actually produce, be more productive individuals in a society, if they were helped by the examination.”

As many teachers argue here, the methods of assessment are one of the crucial parts of school education. It is true that there are some subjects which cannot be assessed. Moreover, it may be rather natural that there are some people who eventually conclude that the current assessment method is relatively fair which tends to test the good memory of each pupil. However, it may be also true that continuous assessment based on such methods as course work, could be a suitable way of assessment in the global age. In fact, there are many students who would like to emphasize continuous assessment methods as already shown in section 1.3.4.

Although more consideration is needed here, it will be a matter of balance, if both the current assessment methods and continuous assessment methods are important.

SECTION 2.3. TEACHERS' VIEWS ABOUT THE CURRENT EXAMINATION SYSTEM

Question 6 asks about another key research question: teachers' views about the current examination system.

Question 6. Do you think an entrance examination to university should change to better prepare pupils for the global age? If so, how?

As for the current A-levels, which are basically equivalent to entrance examinations to university, some teachers are skeptical. First it is about subjectivity, and secondly it is about a problem in a system. The following quotation represents this type of view.

“The system of entry is haphazard. For example, two [universities:] Oxford and Cambridge which are supposed to be the two best ones, although that's arguable, the system for entry there is - it changes from college to college. We've had many pupils who applied there, and been turned down, and others who applied, we didn't think to get in, and have got in. It's very haphazard. At other universities it depends on A-level results. But they have to be offered places before their results are known. Do you know about our system? It's crazy...they say, we will offer you a place if you get two As and a B, so they don't know till literally weeks before they go, whether they've managed to achieve their grades or not.”

In fact, some problems related to the above issues happened in A-levels in 2000. One bright girl, who comes from a state school, wanted to read medicine and recorded five As at A-level, was rejected by an Oxford college, and has been offered a place at Harvard University in the USA (Woodward, 2000; Kelly, 2000). Although this is an extreme case and there are many background issues to be considered, it should be noted that a few cases like this are actually happening, as the above remark explains.

On the other hand, an incredible crisis happened because of a failure of the new computer system that the Scottish Qualifications Authorities (SQA) uses. Although the SQA insists this crisis affects only 5% of students, there are a lot of skeptic opinions about this number, and it is quite clear that a lot more than 5% error occurred, according to teachers' version. Since results of thousands of students were delayed, or even worse, might have been incorrect, the number of Scottish school pupils being accepted for places in universities has dropped by 6.6% at the stage of 24 August 2000 (Scott, 2000). Although educational system in Scotland is slightly different from England, if results of A-levels were to come out much earlier, this disastrous situation might be avoided.

There is another teacher who describes the fundamental issue of A-levels as an entrance examination to university. For example, A-levels now incorporate more course work than before, with Key Skills which have become part of the university points system under the decision of UCAS. Accordingly, in theory, A-levels are now taking into account not only written examinations, but also course work and research, and other skills.

Nevertheless, each university and each college can still set their own entrance policies. It is possible for universities to ignore a UCAS decision, and there are also many routes to enter a university, by taking not only A-levels but also GNVQs and even through work experience.

It is possible to say that having a variety of routes to enter university is not a significant issue. Especially when it comes to higher education as lifelong learning, it can be a rather favorable system. However, it can also cause confusion for secondary school teachers, who need to prepare pupils for their further education. This may be one of the issues which can be found especially in England, which has a qualification system but not a common examination to university as in Japan.

Meanwhile, most teachers answer that A-levels are actually changing. In fact, it is

supposed to be broader in terms of the number of subjects to be taken. Although it is still free choice, teachers are encouraging pupils to take at least one A-level which is in different areas to their other subjects. For example, if a pupil takes Science, he or she will also take a language. Therefore, as some teachers describe, it is becoming broader and more like the International Baccalaureate which many English students suggest as one of the possible ways A-levels in which should move.

However, it should be also noted that there are a few teachers who are concerned if this change would be successful with the heavy curriculum content. Moreover, another teacher also mentions that this change which encourages pupils to acquire more, not specific, but broader knowledge could affect the academic level in higher education.

Apart from teachers' views about the current situation of A-levels, some teachers give their views about further changes in A-levels for the global age. First, a few teachers assume that more emphasis on ICT skills will occur in A-levels.

Another teacher, who is not convinced that the current A-level system is the best way, provides his ideas about alternatives in a selection system.

“First of all, I think it should take two or three days, And I think it should take the form of, for example, you should go to an assessment centre, where you are assessed in your social time, where you are assessed in practical tasks, where you are assessed in academic tasks. And then having gone through those sort of processes which are not so much to determine your sociability, but to determine your reactions to given situations, then we should perhaps come to a more formal examination.”

Although the above idea is rather radical and refers to more fundamental issues, it could be one alternative for the current A-levels.

In addition, there are a few teachers who answer that A-levels need to be a common test, which can be recognized internationally. One of the teachers shows his opinion

as follows:

“I think in a sense, probably people will travel more, won't they? Like you've come across to our university. People will go to your university and because of that I think this business of assessment being more able to be compared across different countries will gradually sort of level up.And I think it's inevitable in some ways. I know the English university systems like a lot of overseas students because it brings a lot of revenue into the system. I am sure maybe other countries are the same, you know. They can bring into the country revenue by educating people from other countries so I would have thought there will need to be common exams and common levels.”

In conclusion, many teachers have rather critical views about the current A-level system. In addition, it becomes clear that many teachers believe the new changes in A-levels are, and should be moving towards the International Baccalaureate, which many English students suggest as one of the possible alternative ways for A-levels (see section 1.5, figure 143).

SECTION 2.4. TEACHERS' VIEWS ABOUT PROBLEMS OF IMPLEMENTING EDUCATION FOR THE GLOBAL AGE AT SECONDARY SCHOOL

Question 7. What kind of problems do you think will occur, if changes in the above questions are to be implemented?

English teachers' views about possible problems of implementing education for the global age can be divided into two ideas. First, it is about financial problems, which is a rather practical issue. Secondly, it is about social issues, which involves not only schools but also the whole society.

Opinions about funding problems are raised by almost all English teachers, in the

same way as findings from English students (see section 1.4.2). First, there are a lot of opinions which imply more funding for ICT. One of those teachers mentions that creating more links between schools and business, such as sponsorships, can be one possible way to solve this type of problem.

Although it is not the main argument here, it will be worth mentioning that cooperation with business and higher education has already begun in England, at Cambridge University, for example. Accordingly, it is said that approximately one hundred new businesses based upon IT are established each year at Cambridge (Nihon Keizai Shinbun, 2000a).

Secondly, there are some opinions which insist on more funding in order to increase the number of teachers. As one of the teachers states, “If you’ve got a hundred students taking four A-levels, as opposed to three A-levels, you need an awful lot more teachers”. At the moment, according to teachers, there is no provision for that nor has the government addressed the financial implications.

Thirdly, a lot of teachers mention that there will be a need for more teacher training not only for developing their ICT skills but also for changing their attitudes towards using technology.

The above three issues related to financial issue are practical and significant, and need to be addressed in order to implement changes in education for the global age.

Meanwhile, problems which are relevant to social issues are also mentioned. One teacher points out that there is a problem in political interference in education, which often expands to a debate about social status existing in England.

“We have a lot of discussion about political sort of interference in education. So it depends on which party is in power, what the view of education is. And one party has a lot more sympathy with what we might term ‘working class’, you know, people coming from the lower status of society, trying to get them educated up to the level. And the other party

has more sympathy with people from the higher level and say, they should have private schools, they should be looked after with their own special system, things like that.”

The above remark briefly illustrates how political interference affects education in England, and explains there are many profound issues such as social status to be considered. This teacher insists that it is difficult enough getting agreement in the case of England, and it would be harder when it comes to prepare pupils for the global age on a global scale.

In addition, there is another social issue which is often talked about by teachers. Many English teachers mention that teacher training in terms of changing their attitudes will be inevitable for education for the global age. The following quotation represents many English teachers’ opinions and describes a social issue which affects education in England.

“The main problem as always is changing people’s attitude. You know, not having people entrenched in there. A lot of people dislike change. Because they are frightened of it.because Britain, being a little island, was terribly insular for a while. I mean we in Britain now have this massive debate about the Euro and the currency. Should we all have the same currency. We are really frightened to death. Eventually we are going to lose our identity. I think that’s what worries people. If we get too much like everybody else, nobody will have an identity, obviously.”

The above remark addresses the fact that social and cultural shifts will be needed in order to prepare pupils for the global age, reflecting social issues found in England. This type of opinion is also found in students’ comments, which are described in section 1.4.5.

On the whole, the above remarks show that there are problems in schools which cannot do anything without considering social issues. One teacher believes those

social issues cannot be solved by solely educational debates.

“I don’t think you can make pupils think globally just in schools. I think it’s got to come through other sources as well, such as parents and the media. I think schools can’t do it all on their own, they’ve got to work with other organizations and whatever. It’s just that they can’t do it on their own, and you only have a limited influence on pupils.”

The above opinion illustrates that education should be considered as a social issue not only by teachers and educators, but also many other people.

In conclusion, opinions about problems raised by English teachers are mainly about funding and social and cultural issues. Nevertheless, it should be noted that there are some teachers who believe the above problems could be solved. One teacher provides a positive comment as follows:

“I think ultimately it would improve the quality of the individual’s life. And it would improve the quality of that individual’s contribution to the good of the nation or the globe”.

In the following section, teachers’ opinions about the last key question are described.

SECTION 2.5. TEACHERS’ VIEWS ABOUT HOW SECONDARY SCHOOLS SHOULD CHANGE IN THE GLOBAL AGE

Question 8. Finally, please let me know if there is anything else which should change in education for secondary schools.

For this last question, individual teachers provide their own unique opinions which range widely. Basically, those opinions can be divided into two topics. First, there is criticism of the current secondary school education. In this type of opinion, there are

also views involving social issues in England. Secondly, there are a lot of opinions about what secondary education should do to better prepare pupils for the global age. Main criticisms of the current secondary school education are about excessive pressures to both teachers and pupils. Generally speaking, those pressures that are mentioned by teachers include tests, league tables, and administrative work. In spite of such demanding and excessive work, many teachers feel the status of teachers is not very high. There are many teachers who believe that teachers' value should be appreciated more. As a related problem to this, currently London has one of the worst staff shortages in schools in the world (Dean, 2001).

Moreover, one teacher criticizes those pressures causing another problem in school management. He states "there is an over focus now on bureaucracy and management. Forgetting that the end result is [to] produce a rounded student. And we are moving away from that".

The current government encourages raising standards, so that to investigate school achievement of targets by a form of league table is inevitable. However, it should be noted that there are many teachers who have rather negative opinions about the current school situation, which is created by following the government policy.

Speaking of the government policy, it is worth noting that there are teachers who criticize political interference which makes constant changes and an unstable situation in education.

Moreover, there is another criticism in education which reflects social issues in England. According to teachers, the notion of social classes still strongly affects education in England. The following remark illustrates social issues which are deeply embedded in education in England.

"In this country the academic route and vocational route are still seen as very different and most people have got clear views about which is the,

quote, better and that has to be grasped. All schools are still too much following what had been the grammar school educational pattern and not widening it into other areas and giving them the same kind of value. A major cultural shift is required and there's not too much sign that it has been taken on board. If change is occurring it's very slow and disappointing as well."

Another teacher says this type of traditional, rather conservative notion affects current movements in A-levels as well. He considers "the gold standard of A-levels" will not change so radically even though current change shows A-levels moving towards the International Baccalaureate. It should be noted that this type of opinion is also mentioned by a few students (see section 1.5).

Apart from criticisms of secondary school education shown in the above, there are many opinions about what teachers and schools should do for pupils to better prepare for the global age. They range widely from practical to rather challenging ones.

One teacher, who had visited Singapore for two weeks, says he found a massive difference in facilities between England and Singapore. He insists it would be nice if whole buildings are more modernized. There are other teachers who also mention similar opinions about buildings.

Another teacher, who has taught geography for one year, describes her frustration, since she cannot teach the subject by using computers with a limited budget. Nevertheless, there are many teachers who believe more ICT skills need to be studied in order to prepare for the global age.

Meanwhile, another teacher provides a more precise vision about a school day in the global age as follows.

"I think we should approach a system whereby you start at 8.00am, you work through to 12, and that's academic. And then you perhaps have a couple of hours for lunch. And then, you start again, through till 6, that is for social activities. That is for sports, for drama, for dance, music, or

whatever.”

A teacher who has taught technology for 30 years, believes education as lifelong learning will be increasingly popular.

“I think the main changes are that it will become lifelong. It will be [that] you go to school for a period of time. Then you leave. But you always go into education center. You are always seeking changes for bettering yourself, learning more, changing direction, and it will just become part of life you know. You are always plugged into the education system.”

On the other hand, there are some opinions which insist on a need of awareness for world wide issues. The following opinion, provided by a science teacher, describes how important world wide issues are and how they can be taught in school education.

“I believe that students should actually be much better aware of world issues, global issues and when you think about it, there are so many ways it can be done. I mean, many students study media, and all students at some point study History and Geography. I am not sure any particular curriculum body believes that global issues are important enough. I think it has got to be seen to be an advantage for it to happen.”

Finally, another opinion from a language teacher should be noted here. Although this teacher originally comes from Ireland and may not represent other English teachers’ opinions, it should be worth noting her opinion, which implies more cultural interaction for the global age, and the positive side of effectiveness of education.

“I think we can all learn from other cultures. Again hopefully with IT and access to other countries and how they work, we can take the best things from each culture, and work something out. That will be because every culture has good things, and every culture has things which maybe are not

as useful always. We can all learn from each other, definitely. And of course the future of the world, in general, lies in the hands of young people, children. So if we don't get them access now, or encourage them to communicate in a mutually respectful, helpful way, to learn about each other, then it will be sad. In the future of the world in all senses: the economy, use of resources, everything depends on our children. So how we give them access to this wonderful tool now, this can be used for good: or badly like all scientific discoveries in everything. It can be, can go either way. But hopefully, we use it for good passing of information, passing of good practice, rather than destructive things.”

In conclusion, there are various types of opinions provided by English teachers. Those opinions not only reflect current and social issues in education in England, but also provide positive visions for education for the global age. It may be worth noting that English teachers' opinions are basically rich in variety and individually different, although teachers and students are found to have the same opinions.

In the following chapter, a comparison of findings between English and Japanese respondents is described.

CHAPTER 7 A COMPARISON OF FINDINGS FROM JAPAN AND ENGLAND, AND FURTHER DISCUSSION

This is the last chapter which presents and analyses findings of the research held in England and Japan in 1999 and 2000. This chapter consists of two main parts.

First, a comparison of the findings from the respondents in the two countries. This comparison concerns the last key research question, is described in the same manner as chapters five and six. Accordingly, analysis methods are, a quantitative analysis which uses statistics tests such as ANOVA and chi-square tests; and a qualitative analysis which considers other factors in the findings such as social and cultural issues. The main focus of these analyses is to highlight differences and similarities in the findings from the two countries.

Second, further discussion of education for the global age will take place. The discussion, which will be based on the whole findings of this empirical research, will address the theoretical framework shown in chapters one to three.

Abbreviations for the name of university and groups are used as follows:

JE for the Japanese students undertaking a first degree in a teacher training course (group C).

JO for the Japanese students undertaking a first degree (group D).

EE for the English students undertaking a PGCE course (group A).

EO for the English students undertaking a first degree (group B).

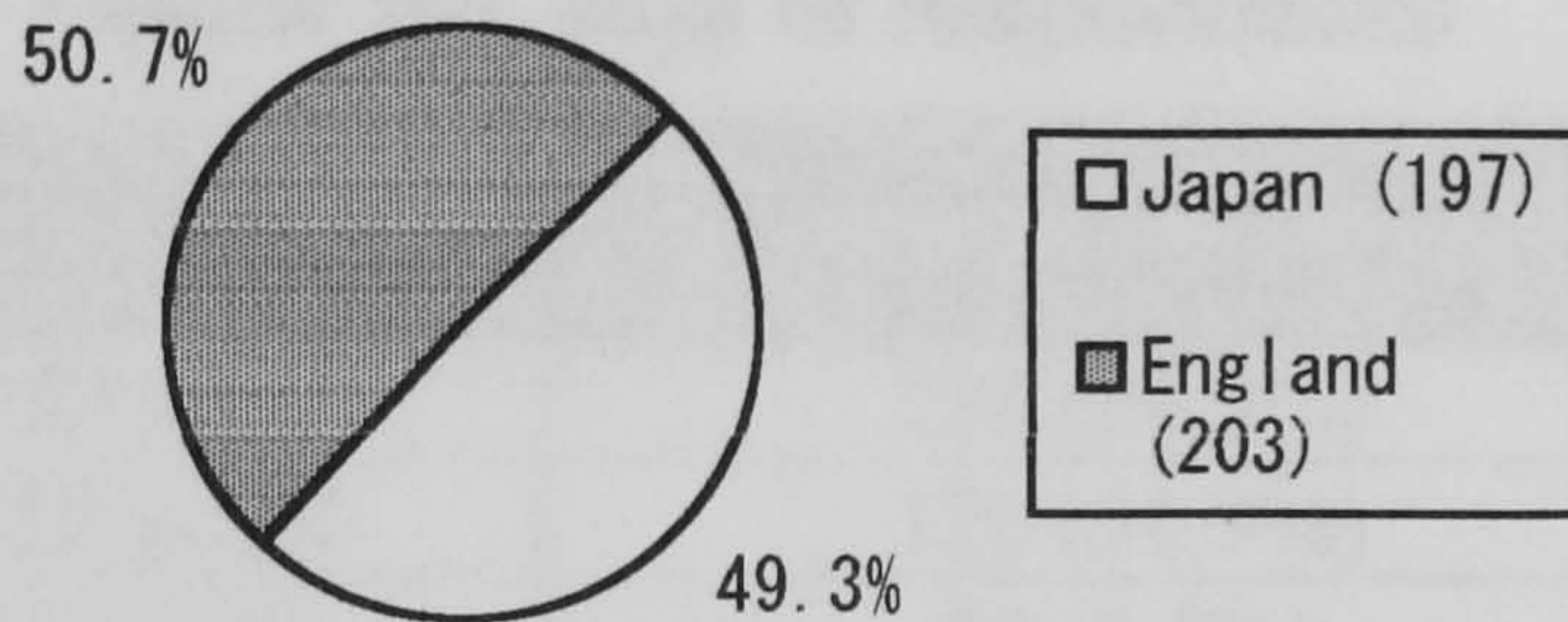
SECTION 1. BACKGROUND INFORMATION

Figure 148. The total respondent population (students)

Although background information of the respondents of the two countries has already been described in chapters 4 to 6, it will be generalised here briefly.

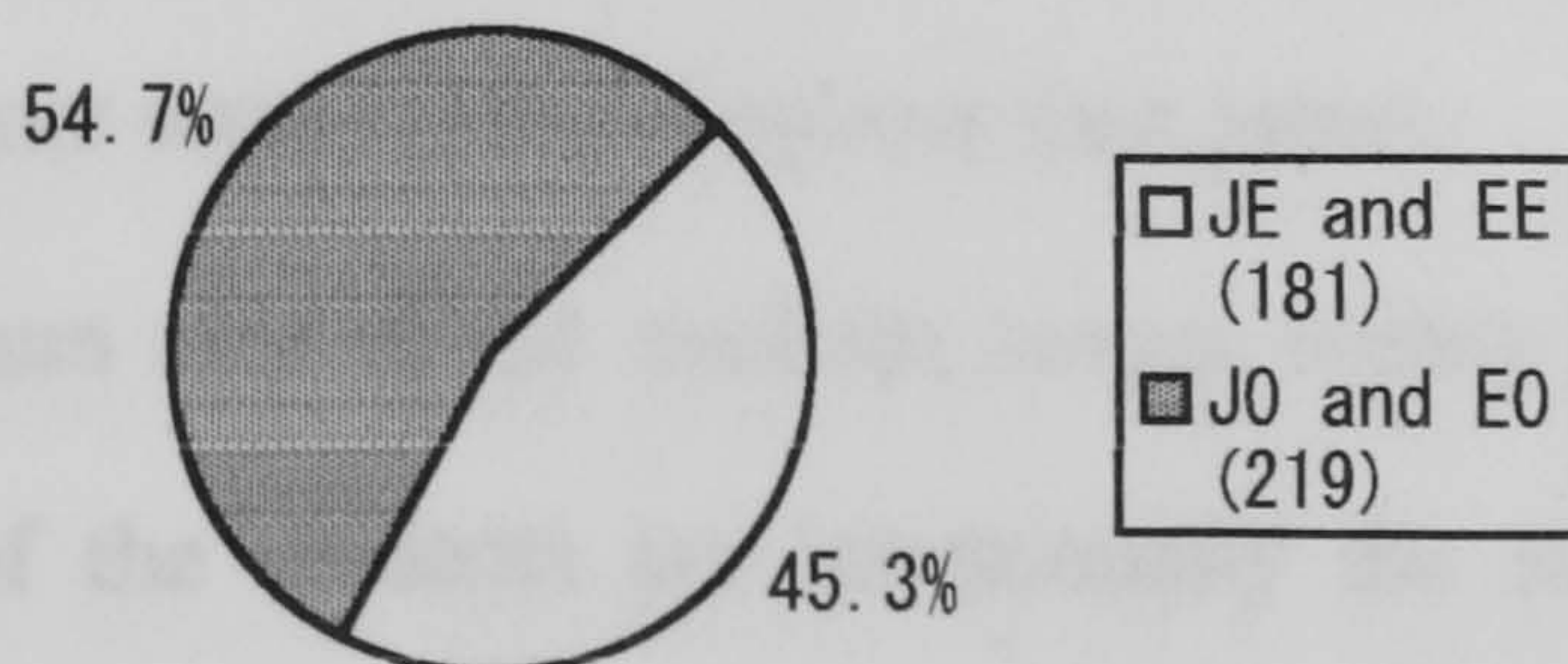
First, the questionnaire was administered to students in four universities in Japan and one university in England. The total respondent population of the students is 400. 197 questionnaires were completed in Japan, and 203 were completed in England.

Figure 148. The total respondent population (students)



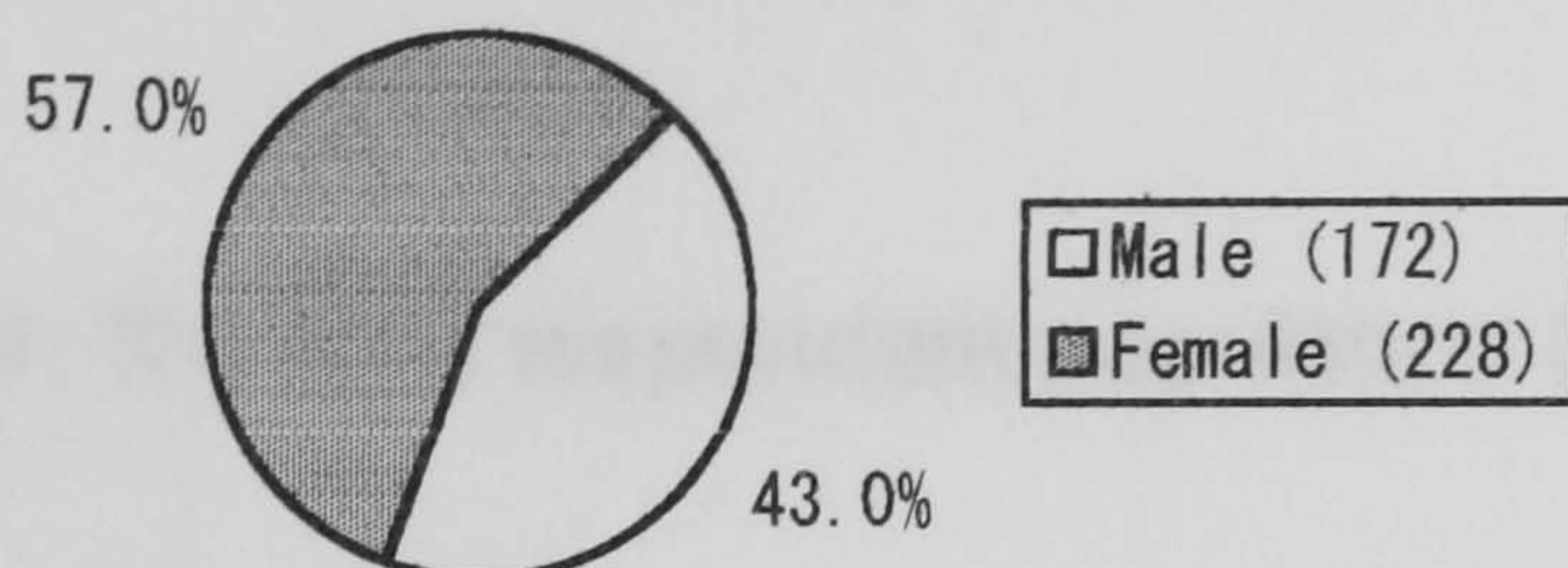
In addition, the number of the students who were undertaking a PGCE course (EE) and a first degree in a teacher training course (JE) is 181, whereas the number of the students who were undertaking a first degree (non-teacher training course: JO and EO) is 219.

Figure 149. The number of the students in groups JE/EE and JO/EO



The respondents consist of 57.2% female and 42.8% male students.

Figure 150. Sex of respondents



The distribution of the age group of the English and Japanese students is shown as follows:

Figure 151. Age of respondents

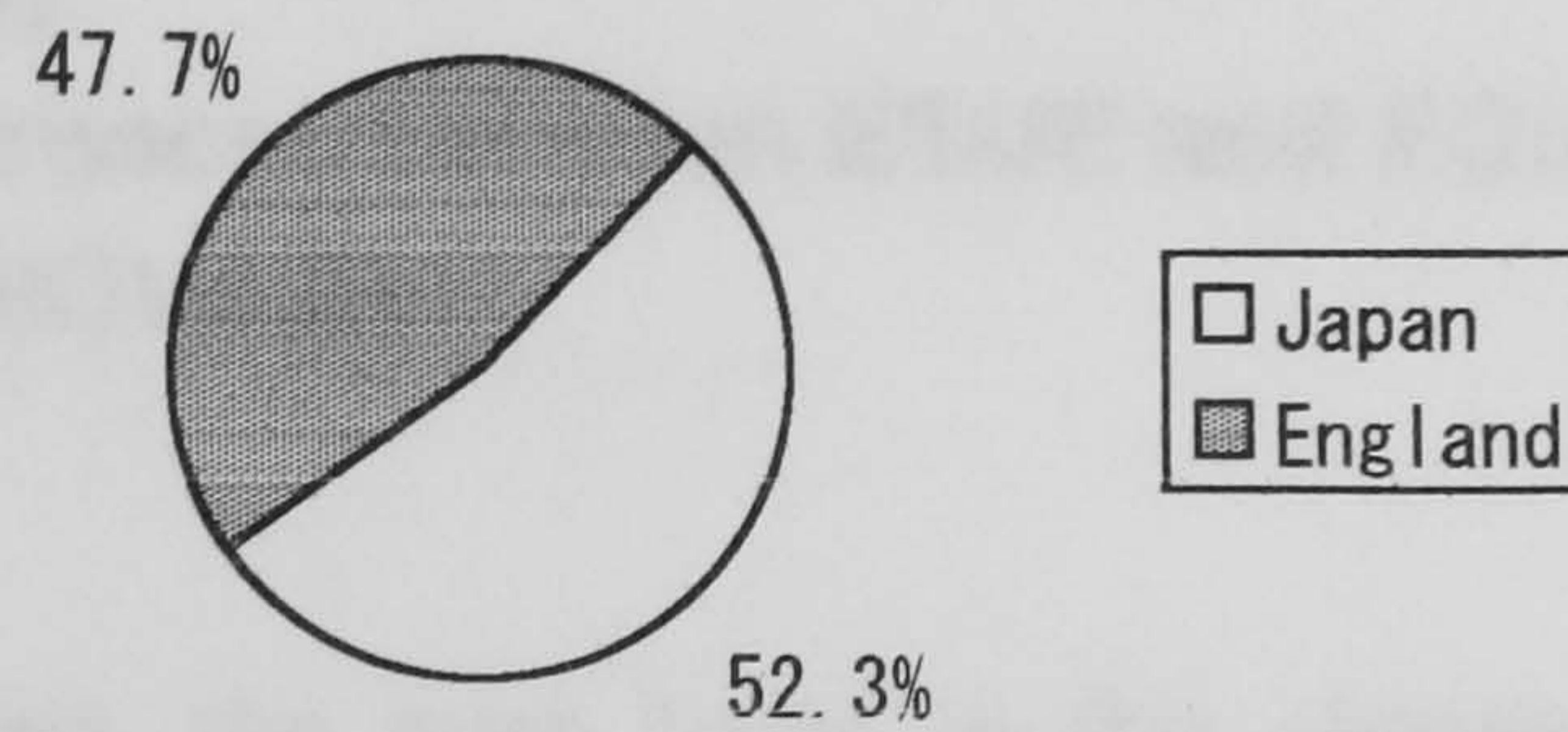
Age groups	English and Japanese Students (100.0%)
18-20 years	233 (59.0%)
21-25 years	126 (31.9%)
26-30 years	24 (6.1%)
31-35 years	7 (1.8%)
36-40 years	3 (0.8%)
40+	2 (0.5%)

In the case of the age groups of the students, data seem to show a cultural difference in higher education between Japan and England. As already described in chapter 5 and 6, section 1, the range of ages of English students is wide, from 18 years to 40+, whereas all of the Japanese students are under 26 years old (see figures 21 and 81). Although this information may not be enough to argue the issue, lifelong learning in higher education seems to be more successful in England than Japan.

In addition, the curriculum area of the students ranges widely from Arts to Science. Many of the courses of the students are intentionally the same between the two countries in order to make a comparison reasonable/suitable. The detailed information has already been described in chapters 5 and 6, figures 22 and 83.

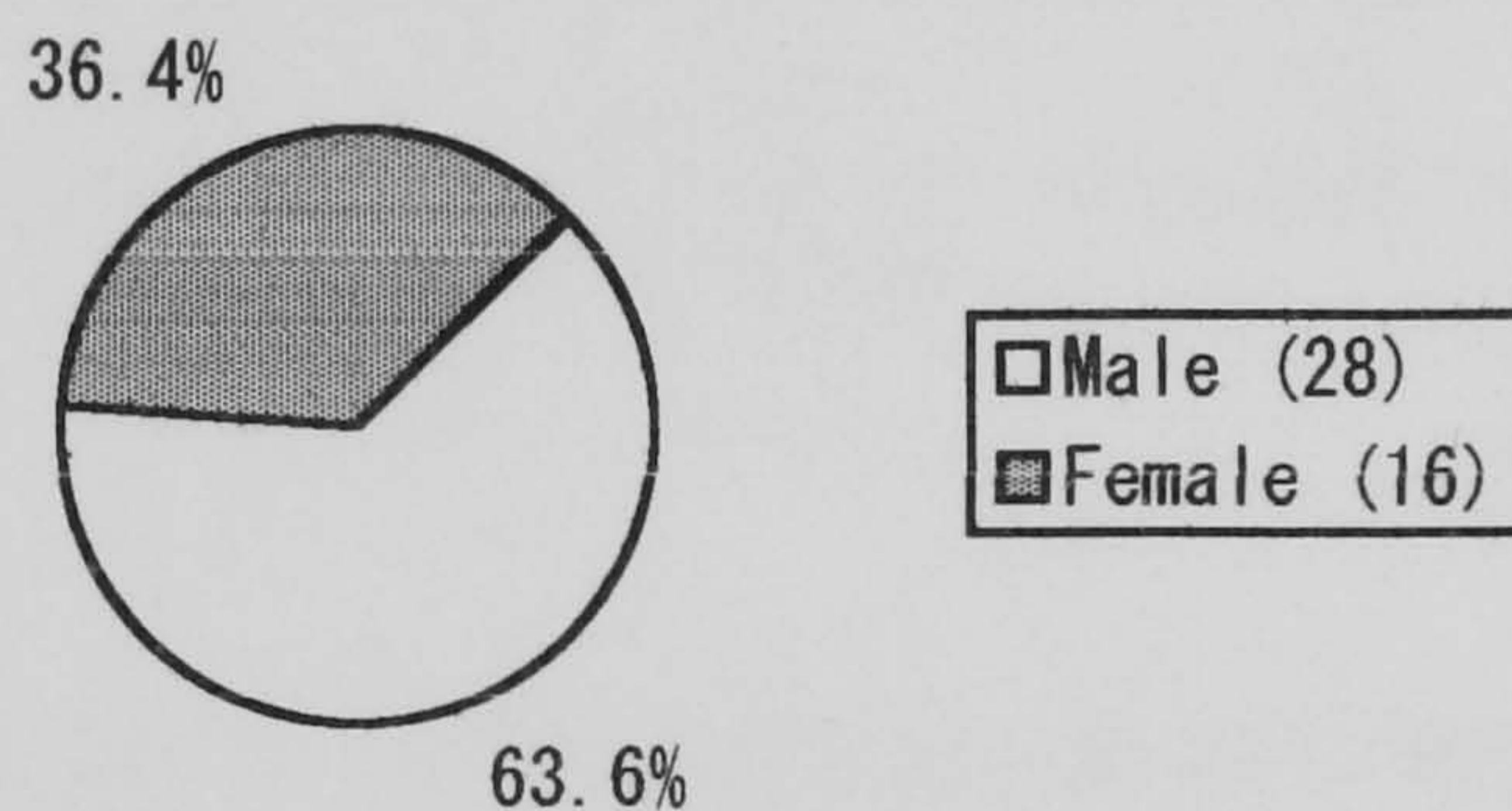
Meanwhile, interviews were conducted with teachers at secondary school level in Japan and England. The total respondent population of the teachers at secondary school level in Japan and England is 44.

Figure 152. The total respondent population (teachers)



In addition, there are 28 male teachers and 16 female teachers altogether.

Figure 153. Sex of respondent teachers



The teaching experience of the teachers ranges from one to 37 years, and the mean experience is 17 years. Moreover, the teaching subjects of the teachers range widely, and the researcher tried to collect comparable teaching subjects as far as possible. For instance, since there was a Music teacher in the Japanese interviews, one English Music teacher was interviewed. In the same way, there are Physics teachers in both Japan and England. The detailed information can be found in figure 78 and 147 in chapters 5 and 6.

In the following sections, findings from the questionnaire and interviews are described

with quantitative and qualitative analysis. For quantitative analysis, which is basically used for the findings from the students, statistical tests such as ANOVA and chi-square will be used. In the case of ANOVA tests, they vary as follows:

A. Curriculum area (ANOVA.A)

B. Age (ANOVA.B)

C. Sex (ANOVA.C)

D. Courses: differences between EE/JE and EO/JO (ANOVA.D)

E. Nationality (ANOVA.E)

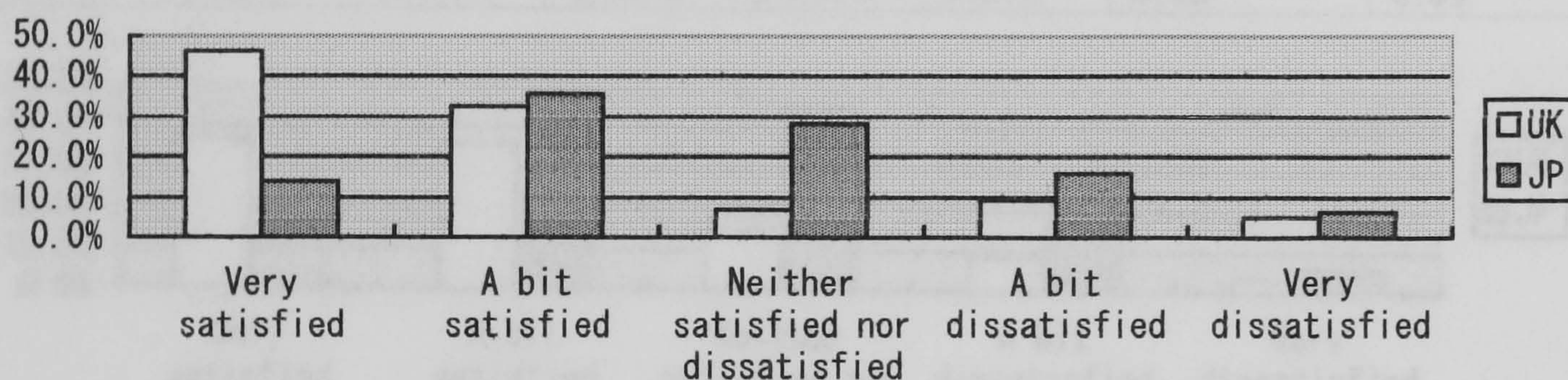
In the above ANOVA tests, the main focus in this chapter is ANOVA.E, which investigates a relationship between answers and nationality of the respondents. Moreover, ANOVA.D test, which looks for any relationship between answers and students' undertaking courses may be interesting to examine.

SECTION 2: VIEWS ABOUT STUDENTS' SECONDARY EDUCATION

In order to clarify the advantages and disadvantages of current education systems and to consider possible ways to evolve secondary school education for the global age, students' views about their received education are investigated through questions 1 to 5 in the questionnaire. First, the degrees of satisfaction of secondary education the respondent has received are asked about in question 1. The following figure shows findings from the two countries.

Figure 154. Question 1. (Satisfaction with secondary school education)

Scores*	1	2	3	4	5	M	SD
UK	46.3%	32.5%	6.9%	9.4%	4.9%	1.94	1.16
JP	13.8%	35.8%	28.2%	15.8%	6.4%	2.65	1.09



*In the questionnaire, 5 degrees of satisfaction are divided into 5 scores as follows: Score 1 = Very satisfied; Score 2 = A bit satisfied; Score 3 = Neither satisfied nor dissatisfied; Score 4 = A bit dissatisfied; Score 5 = Very dissatisfied. More detailed information is in chapter 4 and appendix 2.

M = Mean Score. SD. = Standard deviation.

Findings & analysis

According to figure 154, it appears from the sample that more English than Japanese students are satisfied with their received education at secondary school level. The percentage of English students who are satisfied with their secondary education

(78.8%) is almost twice that of Japanese students (49.6%). In fact, a difference between English and Japanese students in question 1 is revealed by statistical test, ANOVA.E ($F=38.73$, $P<0.05$). This means more English than Japanese students are satisfied with their secondary school education in general.

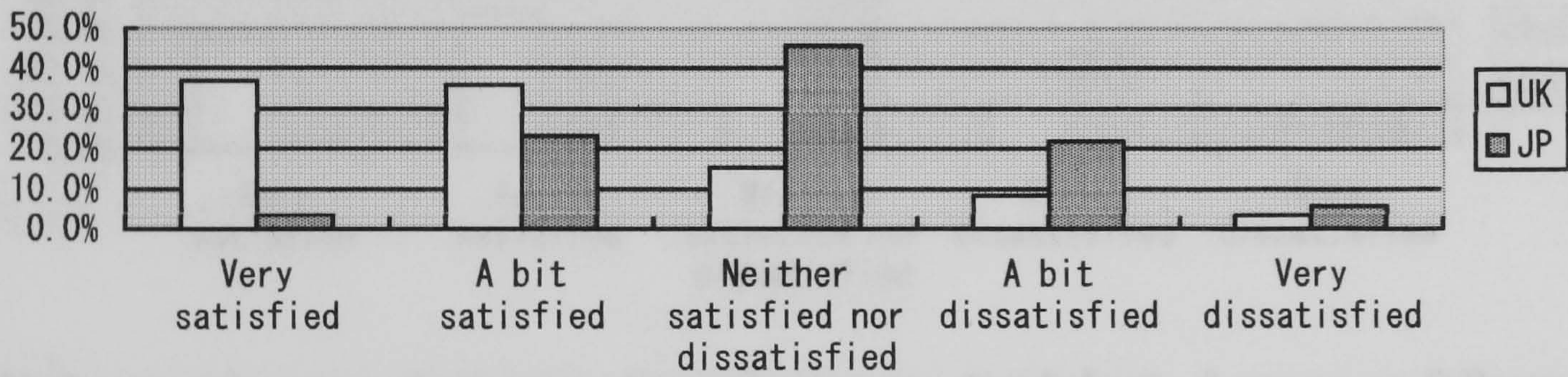
In question 2, four academic issues (q.2.1 to 2.4) and three non-academic issues (q.2.5 to 2.7) in secondary schools are listed and the respondents are asked about their degrees of satisfaction in each issue. First, findings from 2.1 to 2.4 which ask about academic issues are shown.

Figures 155-158

Q.2.1. The content of school subjects

Figure 155.

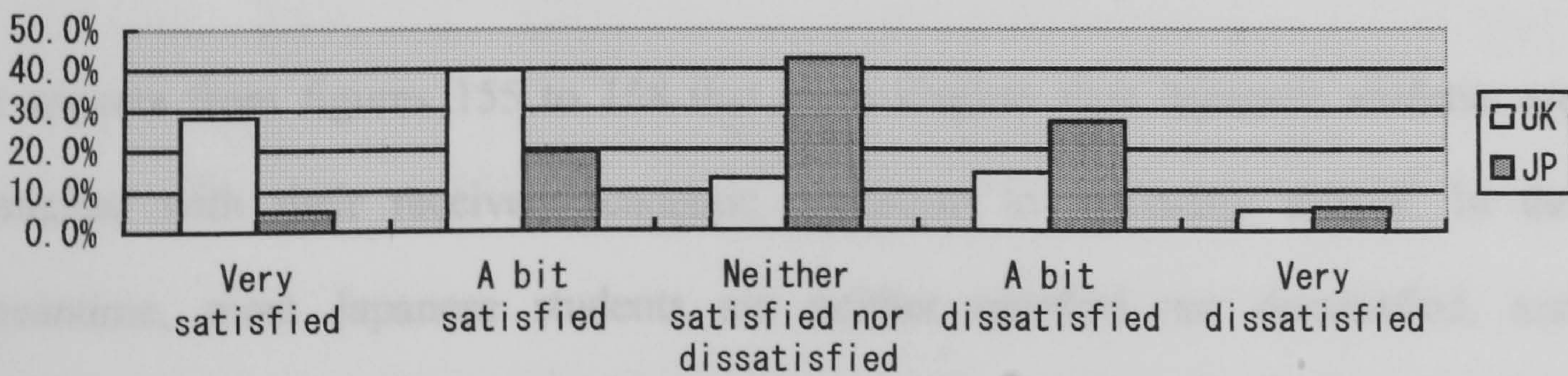
Scores*	1	2	3	4	5	M	SD
UK	36.9%	36.0%	15.3%	8.4%	3.4%	2.05	1.08
JP	3.5%	23.3%	45.6%	21.8%	5.8%	3.02	0.09



Q.2.2. Teaching methods

Figure 156.

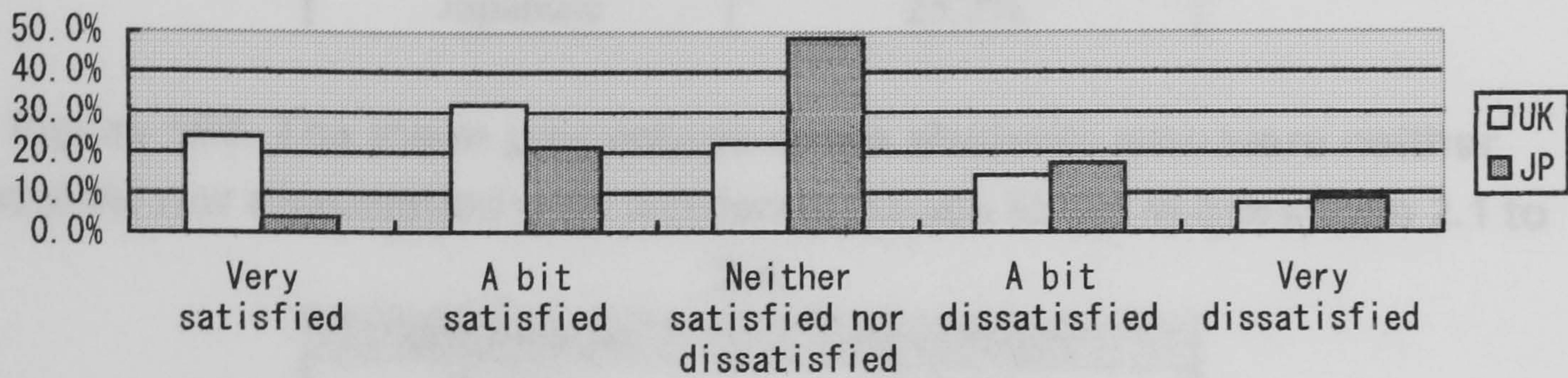
Scores*	1	2	3	4	5	M	SD
UK	28.1%	39.9%	12.8%	14.3%	4.9%	2.28	1.16
JP	5.0%	19.7%	42.6%	26.9%	5.8%	3.08	0.95



Q.2.3. Pace of learning in each subject

Figure 157.

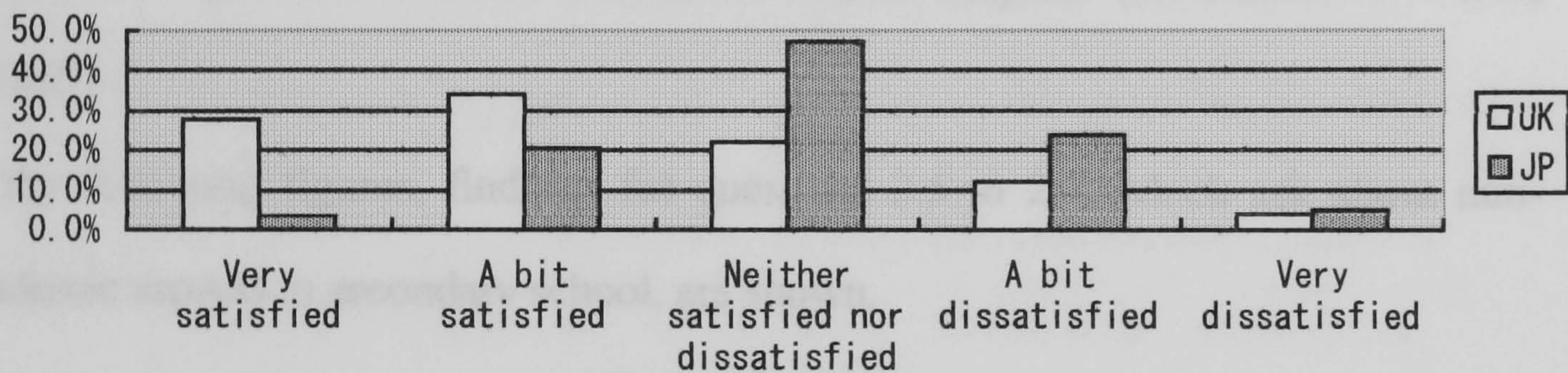
Scores*	1	2	3	4	5	M	SD
UK	24.1%	32.0%	22.2%	14.3%	7.4%	2.49	1.21
JP	4.0%	21.3%	48.7%	17.2%	8.8%	3.04	0.94



Question 2.4. Methods of assessment

Figure 158.

Scores*	1	2	3	4	5	M	SD
UK	27.6%	34.2%	22.1%	12.1%	4.0%	2.30	1.11
JP	3.5%	20.5%	47.2%	23.8%	5.0%	3.06	0.89



*In the questionnaire, 5 degrees of satisfaction are divided into 5 scores as follows: Score 1 = Very satisfied; Score 2 = A bit satisfied; Score 3 = Neither satisfied nor dissatisfied; Score 4 = A bit dissatisfied; Score 5 = Very dissatisfied. More detailed information is in chapter 4 and appendix 2.

M = Mean Score. SD. = Standard deviation.

Findings & Analysis

It appears from figures 155 to 158 that more English than Japanese students are satisfied with their received academic education in secondary school. In the meantime, most Japanese students are neither satisfied nor dissatisfied, and significant differences between Japanese and English students throughout questions 2.1 to 2.4 can be illustrated in the following figures.

Figure 159. The mean percentage of the students who were satisfied with academic issues listed in questions 2.1 to 2.4.

<i>Nationalities</i>	<i>Percentages</i>
English	64.7%
Japanese	25.2%

Figure 160. The mean percentage of the students who were neither satisfied nor dissatisfied with academic issues listed in questions 2.1 to 2.4.

<i>Nationalities</i>	<i>Percentages</i>
English	18.1%
Japanese	45.8%

In addition, significant differences between English and Japanese answers for questions 2.1 to 2.4 are also found by ANOVA.E tests. Most of all, a large difference is found in question 2.1, the content of school subjects (ANOVA.E: $F=94.48$, $P<0.05$).

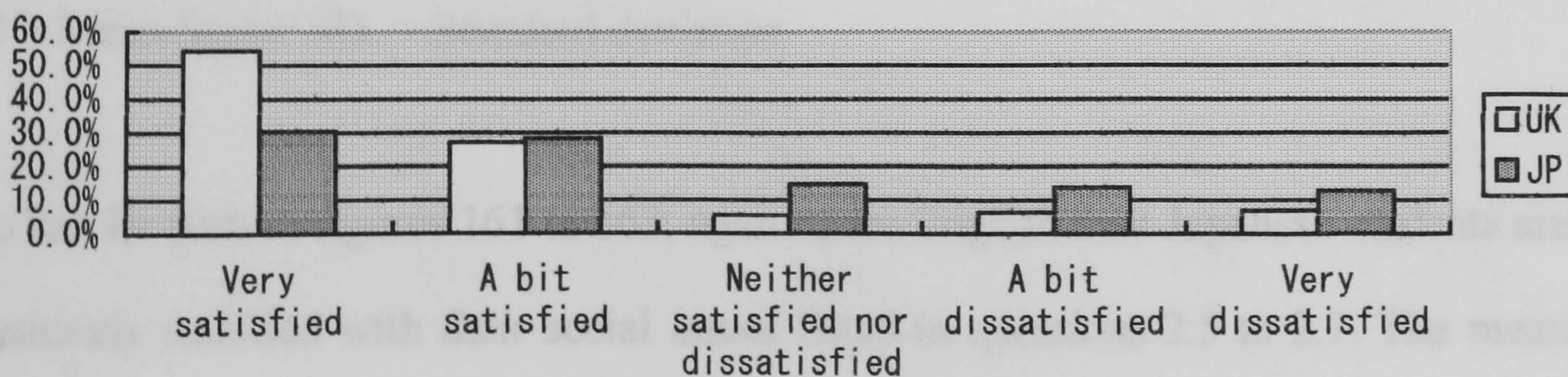
In the following figures, findings for questions 2.5 to 2.7, which ask about non-academic aspects in secondary school, are shown.

Figures 161-163

Q.2.5. Relationships with school friends

Figure 161

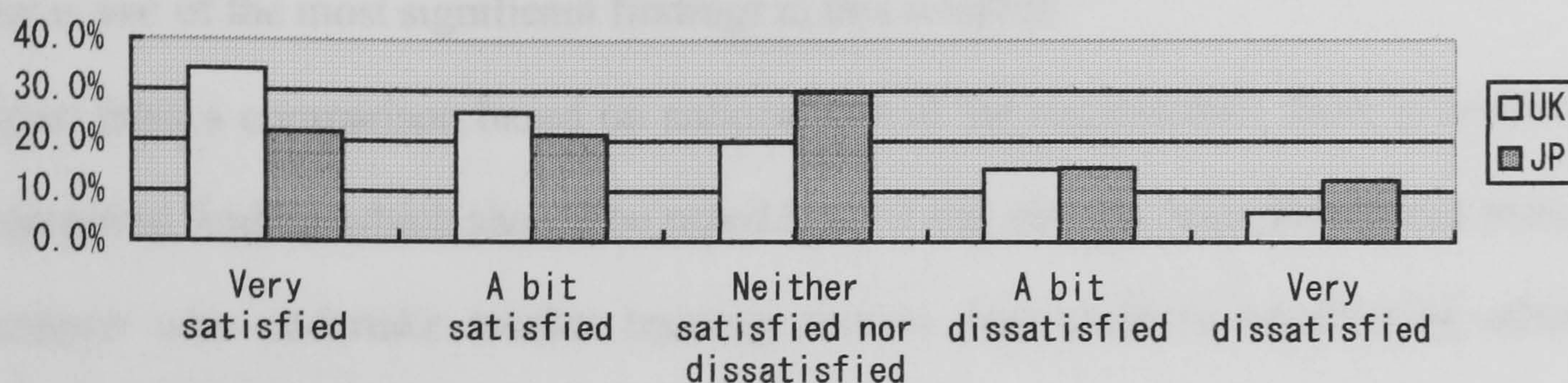
Scores*	1	2	3	4	5	M	SD
UK	54.2%	27.1%	5.4%	6.4%	6.9%	1.84	1.20
JP	30.4%	28.4%	14.7%	13.7%	12.8%	2.49	1.38



Q.2.6. Social activities (clubs, societies)

Figure 162.

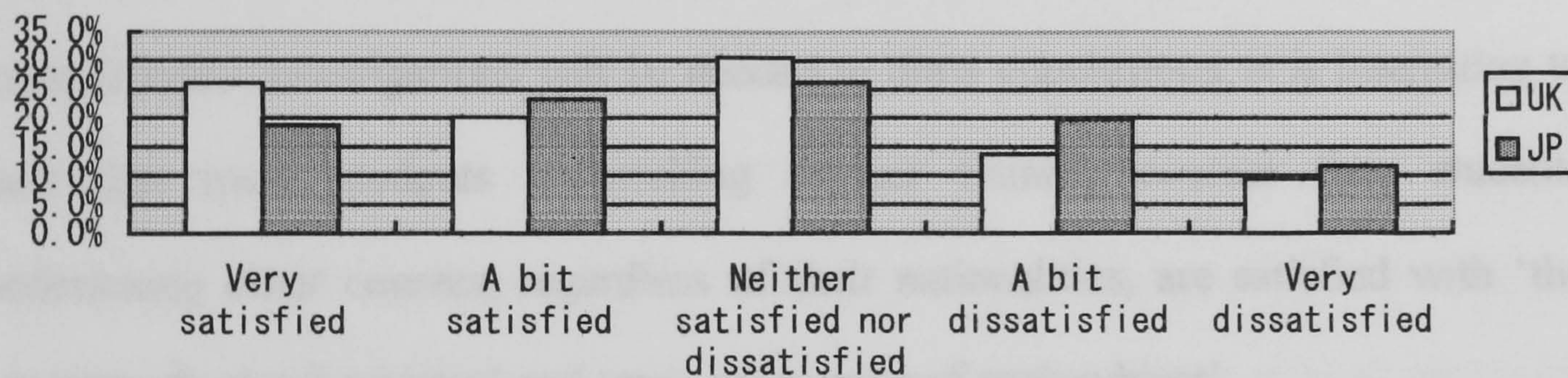
Scores*	1	2	3	4	5	M	SD
UK	34.2%	25.7%	19.8%	14.4%	5.9%	2.32	1.25
JP	21.8%	21.3%	29.9%	14.7%	12.3%	2.74	1.28



Q.2.7. School events

Figure 163.

Scores*	1	2	3	4	5	M	SD
UK	26.1%	20.2%	30.5%	13.8%	9.4%	2.60	1.27
JP	18.7%	23.3%	26.3%	19.7%	11.6%	2.82	1.28



*In the questionnaire, 5 degrees of satisfaction are divided into 5 scores as follows: Score 1 = Very satisfied; Score 2 = A bit satisfied; Score 3 = Neither satisfied nor dissatisfied; Score 4 = A bit dissatisfied; Score 5 = Very dissatisfied. More detailed information is in chapter 4 and appendix 2.

M = Mean Score. SD. = Standard deviation.

As can be seen in figures 161 to 163, again more English than Japanese students are positively satisfied with their social issues listed in questions 2.5 to 2.7. The mean percentages of the students who answer 'very much satisfied' and 'a bit satisfied' are 62.5% of the English, and 47.9% of the Japanese students. ANOVA.E tests find out the mean differences between the two countries in these questions.

Nevertheless, there is a similarity in findings from the two countries which should be

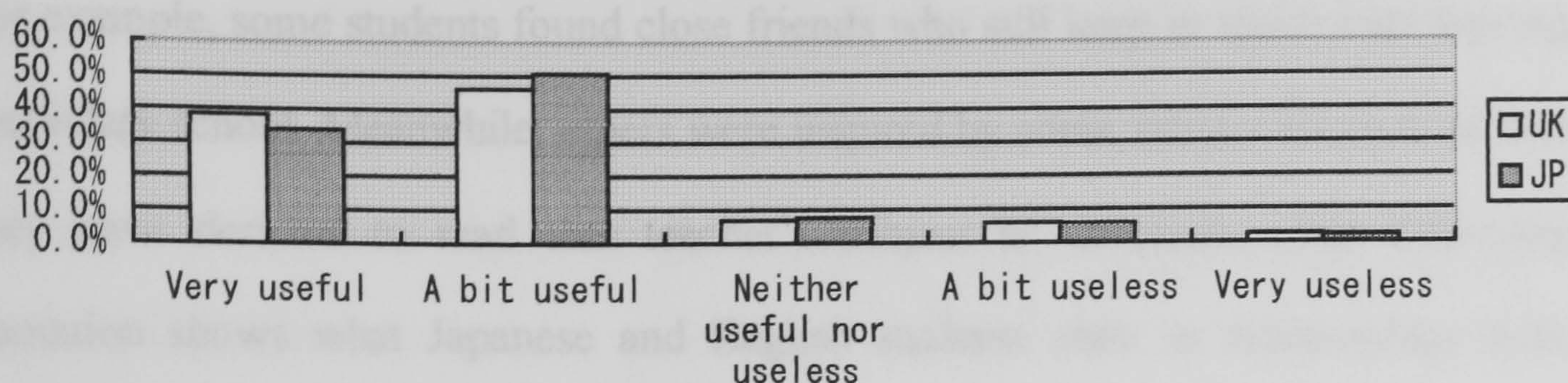
noted here. The most frequently mentioned issue for ‘very satisfied’ and ‘a bit satisfied’ from both countries is “relationships with school friends” (58.8% of Japanese and 81.3% of English students, see figure 161). As will be discussed later, this is one of the most significant findings in this research.

Apart from a comparison based on nationalities of the respondents, there is another interesting finding which should be noted here. It has already been shown that more students who undertake teacher training courses than students undertaking other courses in each country seem to be satisfied with the issues listed in question 2 (see chapter 5, figures 24-30 and chapter 6, figures 85-91). This tendency can be universal regardless of the nationality, since the mean differences between a combined group of JE/EE and the other combined group of JO/EO are found by some ANOVA.D tests (Q.2.1. $F=9.76$, $P<0.05$; Q.2.3. $F=12.9$, $P<0.05$). Although more detailed investigations will be needed to draw conclusions, it is interesting to note that more students undertaking teacher training courses than students undertaking other courses, regardless of their nationalities, are satisfied with ‘the contents of school subjects’ and ‘pace of learning of each subject’.

Added to asking about satisfaction, question 3 asks students about the degrees of usefulness of what they studied and experienced in secondary school and the following figure shows a finding.

Figure 164.

Scores*	1	2	3	4	5	M	SD
UK	38.3%	46.3%	7.0%	6.0%	2.5%	1.88	0.95
JP	33.8%	50.8%	7.7%	5.6%	2.1%	1.91	0.91



*In the questionnaire, 5 degrees of ‘usefulness’ are divided into 5 scores as follows: Score 1 = Very useful; Score 2 = A bit useful; Score 3 = Neither useful nor useless; Score 4 = A bit useless; Score 5 = Very useless. More detailed information is in chapter 4 and appendix 2.

M = Mean Score. SD. = Standard deviation.

According to the above figure, more than 80% of both English and Japanese students feel what they have learnt and experienced is useful. However, findings from questions 4 and 5 reveal that there is a slight difference in selecting subjects as ‘useful’ and ‘useless’ between students from the two countries.

In question 4, the respondents picked up the subjects / experiences which they feel are ‘useful’ in their present life. The subjects which English students selected are recognizably influenced by their curriculum area that they are reading at university (see figure 95, in chapter 6). On the other hand, most Japanese students regardless of their educational background stated that their social experiences, especially relationships with school friends are ‘useful’ (see figure 33, in chapter 5).

Nevertheless, it should be mentioned here that the English students state the most ‘useful’ experiences except for academic subjects are relationships with school friends and teachers. In total, there are 25 English students (12.3%) and 68 Japanese students (34.5%) who mention that “relationships with school friends and teachers” are ‘useful’ experiences at secondary school. Although there is a difference in the number between the two countries, this social experience in non-academic education at secondary school becomes the top valuable issue for the present lives of the respondents in many ways.

For example, some students found close friends who still keep in touch after leaving secondary school. Meanwhile, others were inspired by some subject teachers so that they have decided to read that teacher's subject at university. The following quotation shows what Japanese and English students state in relationships with school friends and teachers.

Some quotations from the English students:

“The most useful experiences were the relationships I developed and what I learnt from my teachers and friends.”

“There were certain teachers who inspired me to do well in certain subjects.”

Some quotations from the Japanese students:

“I had wonderful friends in secondary school. I still keep in touch with them, and sometimes talk about what I can't tell even parents.”

“I came to like Social Studies because of a subject teacher.”

This finding from both Japanese and English research indicates at least two points which can be universally important. First, developing relationships with school friends is a very significant issue in secondary school education. It is also found in question 2.5, in which most Japanese and English students mention as satisfied issue at secondary school.

Second, a relationship with teachers is also a significant part of secondary school education. The above remarks from the two countries indicate that a relationship between teachers and students can be highly important for pupils' motivation and attitude towards subjects.

In interviews, there are also some teachers who believe the most important issue in secondary school education is to develop a good relationship between teachers and pupils. This type of opinion was found in both English and Japanese interviewees, especially those who were well-experienced teachers (see chapter 5, section 2.2.4,

chapter 6, section 2.2.3).

In conclusion, it is possible to say that “relationships between school friends and teachers” is the most significant non-academic issue in secondary education, regardless of country.

Apart from question 4, question 5 asks about academic subjects / experiences in secondary school which students do not feel useful in their present lives. Findings for question 5 strongly reflect educational issues in each country. The following figure shows findings from the two countries.

Figure 165. The five most useless subjects and experiences

	<i>Japanese</i>	<i>English</i>
1	Mathematics (19.3%*)	Science (18.2%)
2	All academic subjects (8.1%)	Languages (16.3%)
3	Science (5.0%)	RE (14.8%)
4	Social activities (4.6%)	CDT (10.3%)
5	Studying for entrance examinations to university (4.0%)	Art (6.4%)

* The number in parenthesis is the percentage of the students who select the subject.

First, a current tendency of English students is to have rather negative attitudes towards Science and Languages, and it can be found in the above figure. Several teachers who answered in interviews also often mentioned this issue (see chapter 6, section 2.2.1). In addition, RE is also often mentioned in education in England, which comprises a multicultural society with several minority groups who have different religions from Christianity. Those subjects raise difficult issues in English secondary education and require further consideration for education for the global age in England.

Meanwhile, Mathematics and Science are often regarded as the principal difficulty with competitive examinations in Japan. Figure 165 illustrates that there are many students who have negative attitudes towards those subjects. Some of the Japanese

students even dislike all academic subjects, while others believe academic subjects in secondary education are only a tool for entrance examination to university. The findings from Japanese respondents reflect not only problematic issues in Japanese secondary school education but also the Japanese competitive academic society (see chapter 1, section 1.2).

In both cases, findings for question 5 indicate current problematic issues in secondary school education for each country and provide some key issues for education for the global age.

A Summary of Findings

Questions 1 to 5 ask about students' views of their education at secondary school level. The similarities and differences of findings from the Japanese and English research should be generalized here.

First, it is obvious that more English than Japanese students are satisfied with their education at secondary school, in both academic and non-academic aspects. The most significant difference in degrees of satisfaction between the two countries is found in question 2.5: the content of academic subjects. Generally speaking, English students are equally satisfied with both academic and social aspects of secondary education. Meanwhile, it becomes clear that the Japanese students value social aspects of education rather than academic subjects taught in secondary school. In addition, question 5 seeks more information about current problematic issues of education which each country has. Those problematic issues also match with findings from teachers in each country.

In the meantime, there are a few similarities in findings from the two countries. First, both English and Japanese students select "relationships with school friends" as the issue over which they have experienced most satisfaction in their secondary school.

In addition, question 4 reveals that a good relationship with teachers is a very significant issue for academic achievement of students regardless of their country.

Further Discussion

Findings for views of students' secondary education show that developing good relationships with people is a very significant issue in secondary education. Relationships with school friends provide changes for the social, personal development of each pupil, and opportunities to learn how to be a member in a society. In addition, the relationship between pupils and teachers seems to be a key issue for pupils' academic achievements. It may be possible to say that learning to have a good relationship with people is a key issue for pupils at secondary school level.

In consideration of education for the global age, this type of learning should be valued and might be an important issue in secondary school education in any country. Learning to develop good relationships with people lies on the Delors' four pillars of education: "learning to know"; "learning to be"; "learning to do" and "learning to live together". It could motivate pupils to pursue their academic achievements, it may help them to learn how to live as a member of a society, it can be a key skill to success in a work place, and it may help to understand differences and how to work together with people in other countries. Whenever and wherever we live, learning to develop a good relationship with people may depend on the basis of pedagogical arguments.

Meanwhile, although the ideas of the global age pointed out by English and Japanese teachers are almost the same and 'the world is shrinking' as they say, school education still strongly reflects the social and cultural issues of each country. For instance, problematic issues which are found in question 5 illustrate educational

issues which both Japan and England have, and those issues should be considered in each country.

In terms of education for the global age, foreign language education will be a very problematic issue for education in England. Although people in the world speak English as an internationally recognized language, English people may still need to achieve foreign language skills. For one reason, as one of the interviewees pointed out, languages are deeply related with cultures, and learning about a language can mean learning about that culture, hence it may help to understand different people. It greatly helps to work together, and it certainly is significant in the global age when people need to consider world-wide issues.

Moreover, it may be worth mentioning that many people feel that native English speakers see them as intellectually underdeveloped, since they do not speak English (Fukuda, 1996). In fact, one of the researcher's Japanese friends criticized English people who treated him as if he is not academically intellectual because of his faltering English, even though he graduated from one of the prestigious universities in Japan. As one of the teacher respondents said, it will be also important to change people's attitudes for language education in the case of England.

In addition, RE is another issue for English education. Religion is also profoundly related to national identity, culture, and personal belief. In such a multicultural society as Britain, RE should be regarded as a more sensitive issue. As some student respondents note, one possible way might be to study more religions. This means not only concentrating on Christianity but also providing knowledge about other religions without prejudice. It might be very difficult to implement, since it requires treating religion not as belief but as an academic subject. Although religion is a very sensitive and difficult issue to discuss in a few words, RE cannot be ignored in a multicultural society such as Britain.

Meanwhile, findings from the Japanese respondents reveal that academic education

at Japanese secondary school seems to acquire a negative reputation. For one reason, there are competitive entrance examinations to university, which are sometimes called 'examination hell', and secondary education is often regarded as a preparation for that. Secondly, Japanese society values academic achievements rather than individual's personal and social development.

However, the world is changing. After the economic crisis in Asia in the 1990s, it may be no longer the case. Although the notion still exists in Japanese society, entering a prestigious university cannot guarantee the potential for success in a work place nor that a job is safe for life. In addition, the number of the young in the population is decreasing dramatically, and it is said that there will be no 'examination hell' in the near future. Moreover, in the global age when people work abroad, graduating from a prestigious university with a vast amount of academic knowledge may no longer be enough. For the global job market, knowledge of, and skills in working with, different people from different cultures, as well as having thinking skills for problem situations, will be more important.

As one of the interviewees describes, people may no longer need the vast amount of knowledge, thanks to new technology. Although there still need to be young people who have specific knowledge for more technological developments, the content of education may need to shift from the knowledge-based to thinking skills-based curriculum. What is required in the global age may not be knowledge, but skills to fully utilize knowledge in various situations. In this sense, the Japanese educational reform in recent years which tries to reduce the content of the academic subjects and value social developments more (see chapter 1) should be encouraged, although there are many difficulties and criticisms to be considered. In further discussion, to find the balance between academic and social education will be the main point in Japanese education for the global age.

In conclusion, findings for the key question of views of students' received education

indicate universal issue and problems which reflect each country's social and cultural aspects. In the following section, more comparative analyses will be described.

SECTION 3. VIEWS ABOUT EDUCATION FOR THE GLOBAL AGE

Findings for another key research question, which is to examine views about education for the global age at secondary school, are compared. They are asked about through questions 6, 8, 10 and 12 in the questionnaire to the students and questions 2 to 5 in the interviews with the teachers.

In the same manner as previous chapters, findings are divided into the four aspects of education: the aim of education; curriculum contents; teaching methods and assessment methods.

3.1. THE AIMS OF EDUCATION

First, findings from question 6 in the questionnaire for the English and the Japanese students are shown.

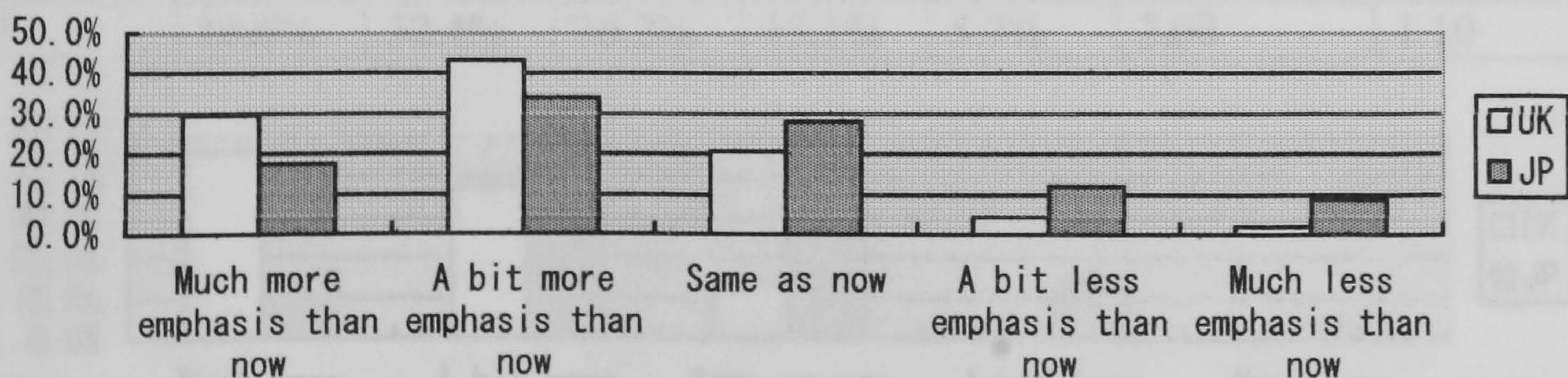
Question 6. How much emphasis do you feel should be given to each of the following aims for the secondary school curriculum in the global age?

Figures 166-172

Question 6.1. To help pupils to acquire the skills needed to get the job they want in adult life (*Learning to do*)

Figure 166.

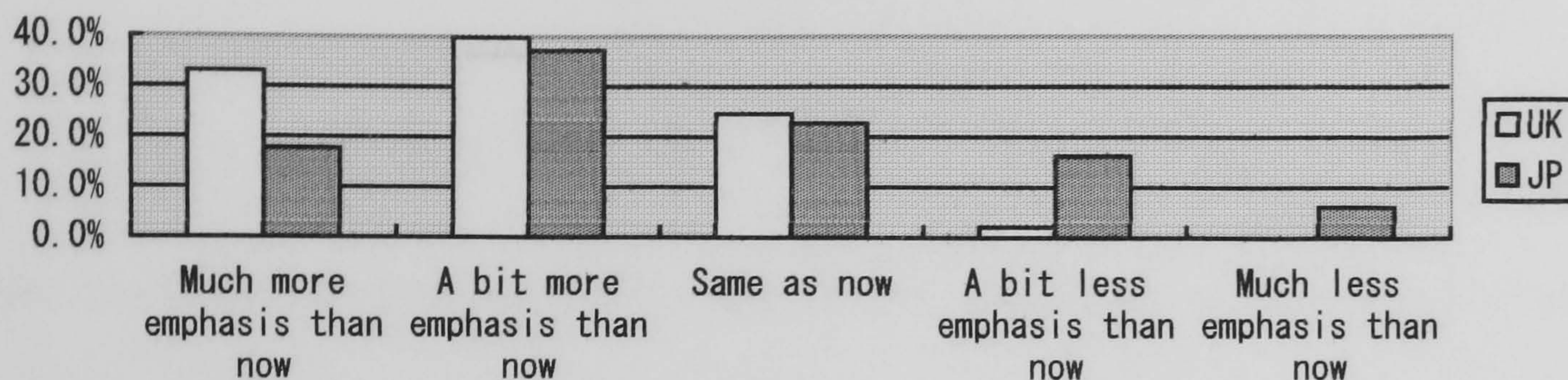
Scores*	1	2	3	4	5	M	SD
UK	29.6%	43.3%	20.7%	4.4%	2.0%	2.06	0.93
JP	17.4%	34.0%	27.9%	11.9%	8.8%	2.58	1.14



Question 6.2. To help pupils to acquire a broad general knowledge (*learning to know*) (*learning to live together*)

Figure 167.

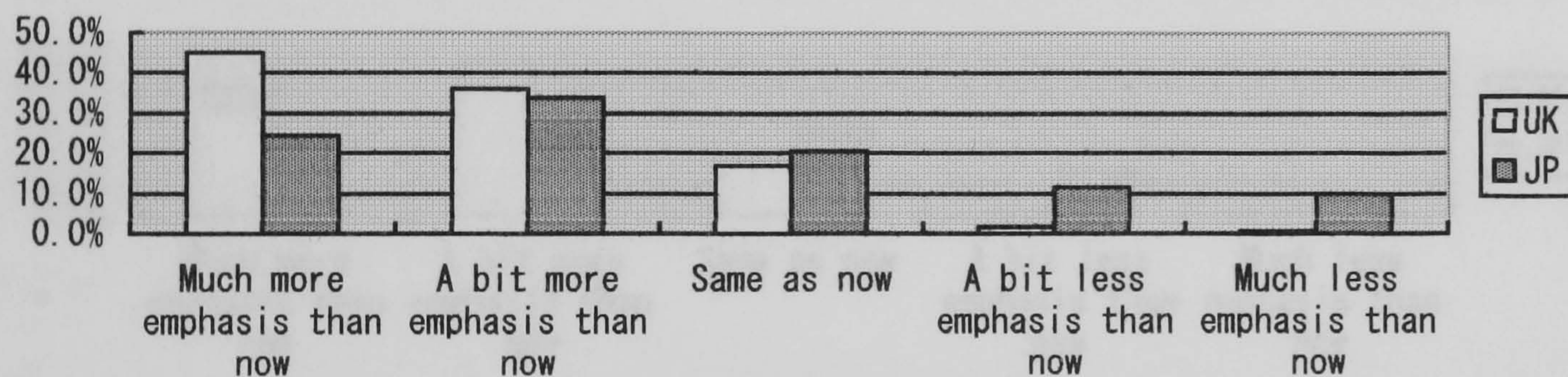
Scores*	1	2	3	4	5	M	SD
UK	33.0%	39.9%	24.6%	2.5%	0%	1.97	0.82
JP	17.7%	37.2%	22.7%	16.2%	6.2%	2.55	1.12



Question 6.3. To help pupils to develop an understanding of other countries and cultures. (*learning to live together*)

Figure 168.

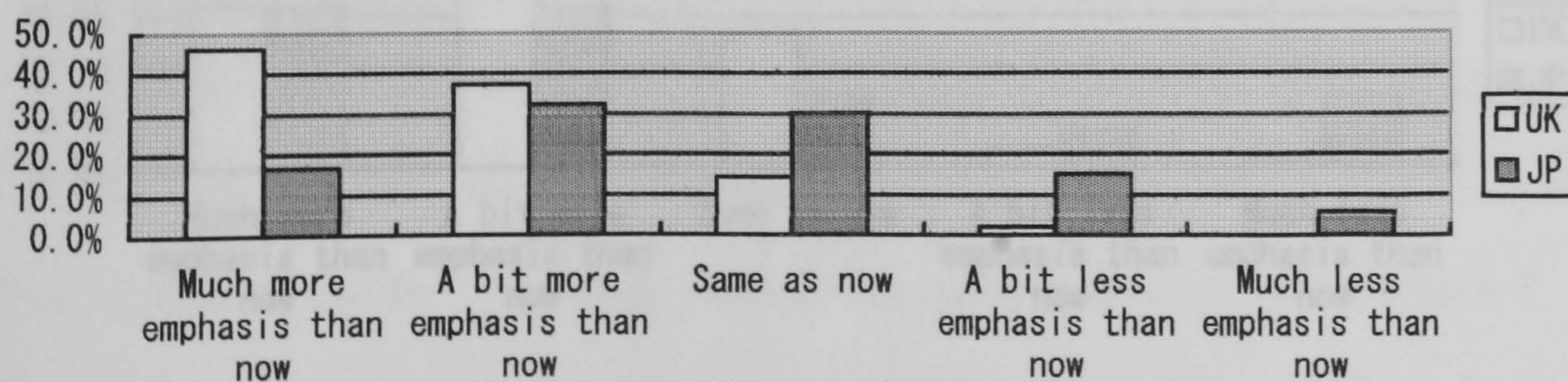
Scores*	1	2	3	4	5	M	SD
UK	45.0%	36.1%	16.8%	1.5%	0.5%	1.76	0.82
JP	24.5%	33.9%	21.4%	11.5%	8.9%	2.46	1.22



Question 6.4. To help pupils to develop an understanding of different communities in their own country. (*learning to live together*)

Figure 169.

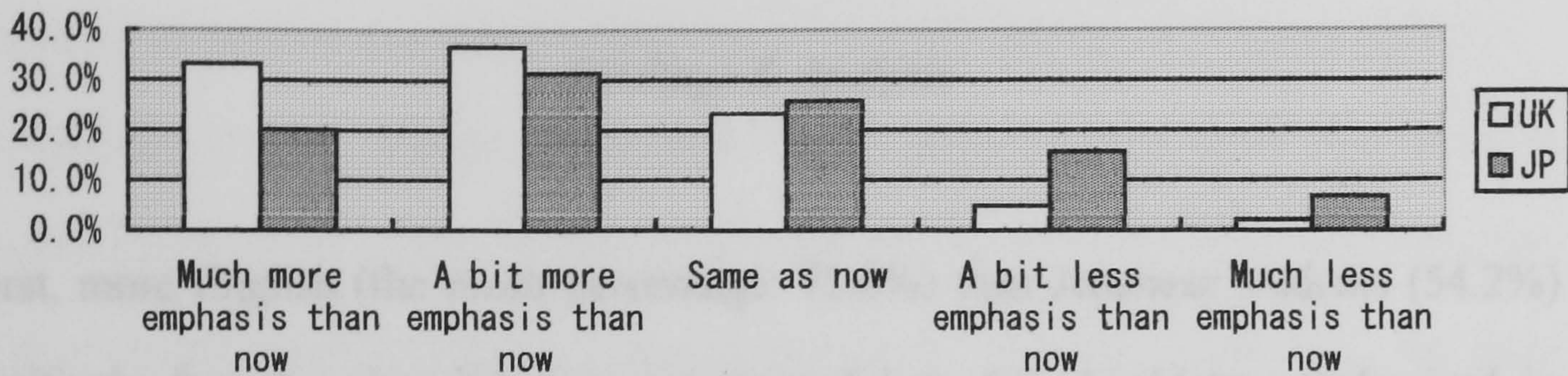
Scores*	1	2	3	4	5	M	SD
UK	46.3%	37.4%	14.3%	2.0%	0%	1.72	0.78
JP	16.6%	32.4%	30.2%	15.1%	5.7%	2.60	1.10



Question 6.5. To help pupils to learn to develop a sense of being a citizen of the world. (*learning to live together*)

Figure 170.

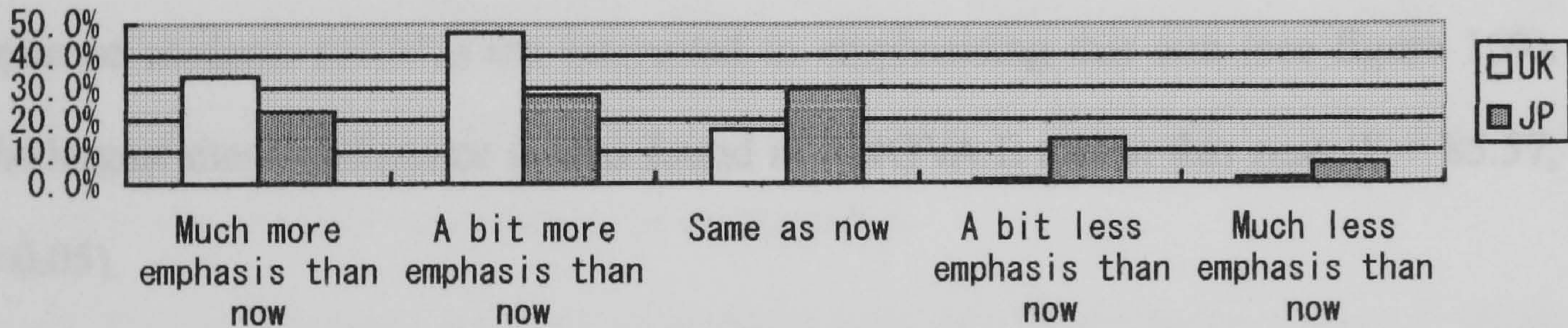
Scores*	1	2	3	4	5	M	SD
UK	33.2%	36.6%	23.3%	5.0%	2.0%	2.05	0.97
JP	20.2%	31.4%	25.9%	15.7%	6.8%	2.58	1.17



Question 6.6. To help pupils to learn how to deal with problem situations (*learning to be*)

Figure 171.

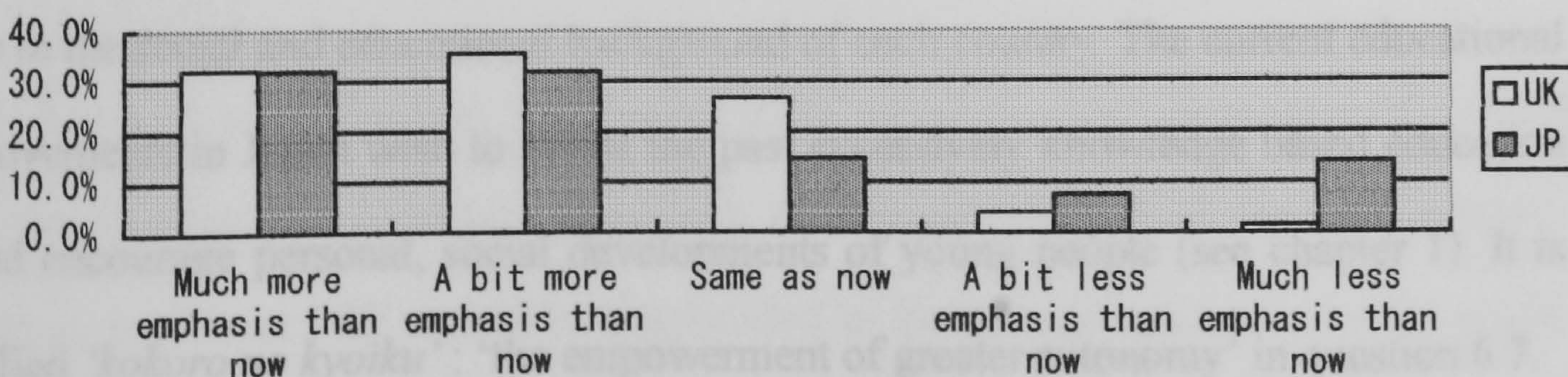
Scores*	1	2	3	4	5	M	SD
UK	33.5%	47.3%	16.7%	1.0%	1.5%	1.89	0.82
JP	22.5%	27.8%	29.8%	13.7%	6.2%	2.54	1.17



Question 6.7. To help pupils to exercise greater autonomy (*learning to be*)

Figure 172.

Scores*	1	2	3	4	5	M	SD
UK	32.2%	35.6%	26.7%	4.0%	1.5%	2.07	0.94
JP	32.1%	31.9%	14.6%	7.4%	14.0%	2.39	1.37



*In the questionnaire, 5 degrees of emphasis are divided into 5 scores as follows: Score 1 = Much more emphasis than now; Score 2 = A bit more emphasis than now; Score 3 = Same as now; Score 4 = A bit less emphasis than now; Score 5 = Much less emphasis than now. More detailed information is in chapter 4 and appendix 2.

M = Mean Score. SD. = Standard deviation.

Findings & Analysis

First, more English (the mean percentage: 75.6%) than Japanese students (54.2%) positively feel the aims listed in questions 6.1 to 6.7 should be emphasized in education in the global age.

The interesting finding in question 6 is that some outcomes from the two countries are in striking contrast. The aim which most English students (83.7%) feel should be emphasized is ‘to help pupils to develop an understanding of different communities in their own country’, in question 6.4. On the contrary, there are smallest group of Japanese students (49.0%) are interested in emphasising this aim (see figure 169). The largest mean difference is also found in ANOVA.E test in this case ($F = 85.57$, $P < 0.05$).

Meanwhile, most Japanese students (64.0%) feel the aim ‘to help pupils to exercise greater autonomy’ in question 6.7 should be emphasized. However, English students are least interested in emphasising this aim (ANOVA.E, $F = 7.75$, $P < 0.05$, see figure 172).

One possible reason for those contrasting outcomes between the two countries will be in the social and educational background of each country. The current educational movements in Japan wish to revise the past excessively knowledge based education and encourage personal, social developments of young people (see chapter 1). It is called ‘*kokoro no kyoiku*’: ‘the empowerment of greater autonomy’ in question 6.7.

This educational movement also affects opinions from the Japanese teachers. In the

interviews with the Japanese teachers, the most frequently observed opinion about the aims of education for the global age is about personal and social development and whole person education, which belongs to Delors' "learning to be" (see chapter 5, section 2.2.1). In the same way as the Japanese teachers, the findings from the Japanese students in question 6 reflect the current educational movements in Japan.

Meanwhile, English society has always been multicultural. It seems very hard to distinguish between purely English people and others, since there are many English people whose ancestors originally came from other countries. Especially, the large number of Asian and West Indian immigrants in the 1950s and 1960s, who do not share the cultural and religious identities of European people, had a confusing impact on English society. Nevertheless, misunderstandings between ethnic minority groups still exist and crimes based on racial discrimination often happen in the UK.

After consideration of this social background of England, it may be rather natural to find that the most understandable aim in Delors' "learning to live together" for English students is 'to help pupils to develop an understanding of different communities in their own country' in question 6.4.

On the contrary, it may be also interesting to note that the Japanese society is rather mono-racial, although there are a few small minority groups (see chapter 1). One of the Japanese teachers honestly explained his confused feeling which occurred whenever he met foreigners in Japan (see chapter 5, section 2.2.1). In this social background, it is reasonable that the Japanese students are least interested in the aim in question 6.4.

(Before moving to the next sub-section, other opinions which have been mentioned by the teachers should be described here. As already stated, most Japanese teachers answer that more PSE should be emphasized as the aims of education for the global age. Meanwhile, most English teachers mention that the aims are 'evolving' and moving towards to the global age through ICT, PSE/RE, and the new Citizenship

subject.)

3.2. CURRICULUM CONTENT

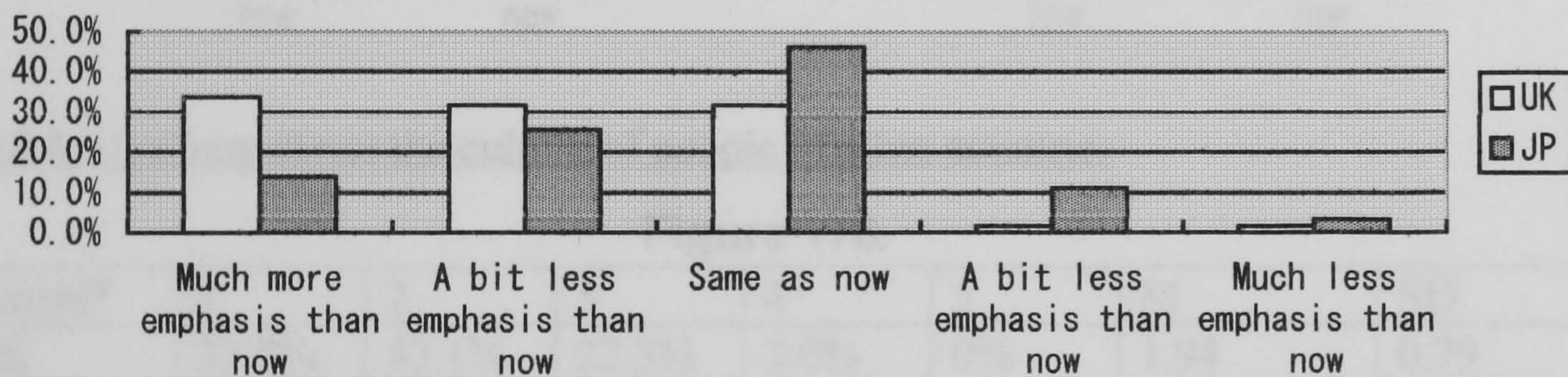
In the questionnaire, question 8 asks about the curriculum content of education for the global age. The findings from the English and Japanese students are as follows:

Figures 173-183

Q.8.1. Basic Skills (literacy, numeracy)

Figure 173.

Scores*	1	2	3	4	5	M	SD
UK	33.8%	31.8%	31.8%	1.5%	1.5%	2.04	0.89
JP	13.8%	25.4%	46.6%	11.1%	3.1%	2.64	0.96



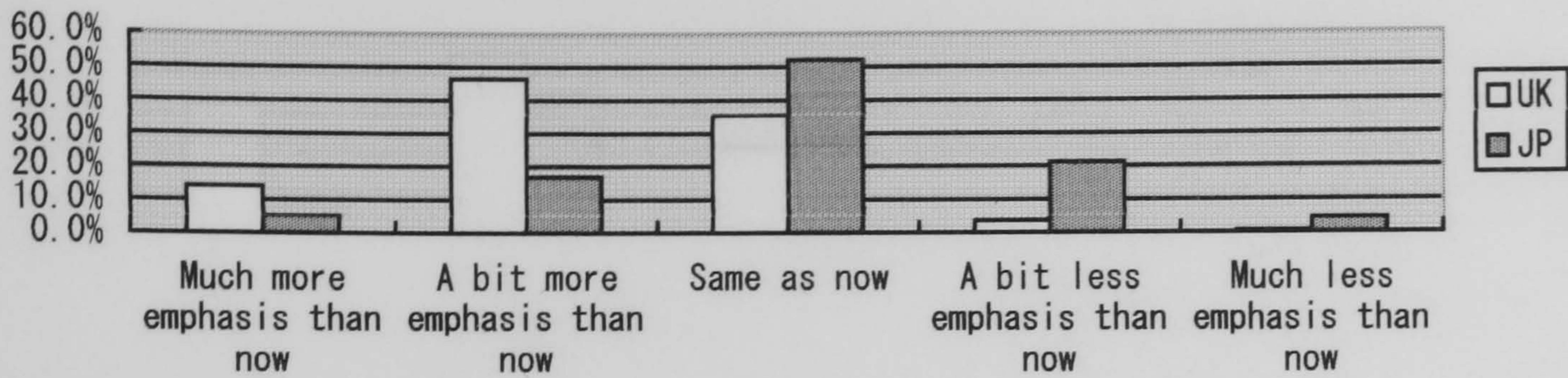
*In the questionnaire, 5 degrees of emphasis are divided into 5 scores as follows: Score 1 = Much more emphasis than now; Score 2 = A bit more emphasis than now; Score 3 = Same as now; Score 4 = A bit less emphasis than now; Score 5 = Much less emphasis than now. More detailed information is in chapter 4 and appendix 2.

M = Mean Score. SD. = Standard deviation.

Q.8.2. High-skills / knowledge

Figure 174.

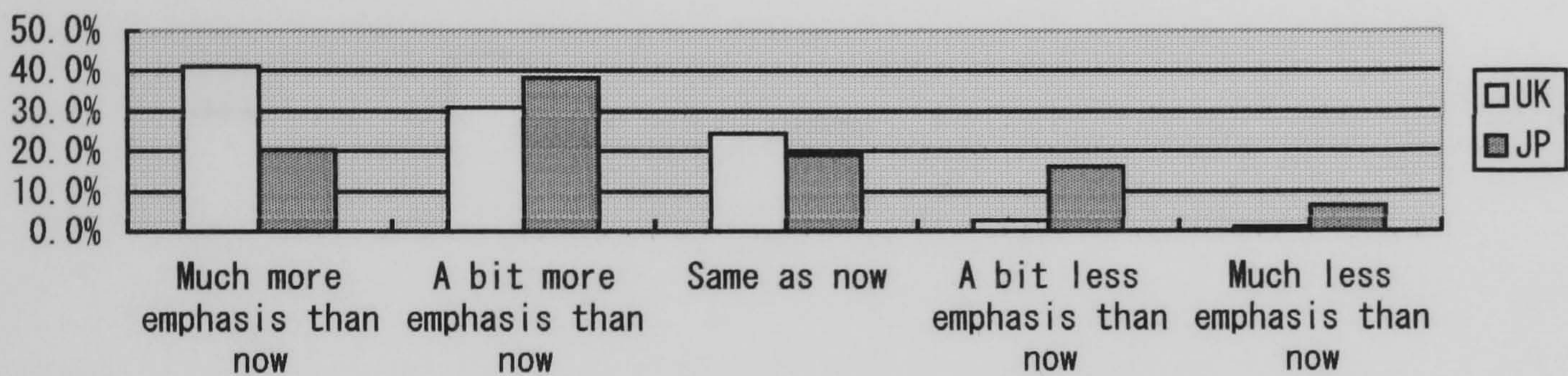
Scores*	1	2	3	4	5	M	SD
UK	14.0%	46.5%	35.5%	3.5%	0.5%	2.30	0.77
JP	5.3%	17.0%	52.1%	21.3%	4.3%	3.02	0.87



Q.8.3. Foreign Languages

Figure 175.

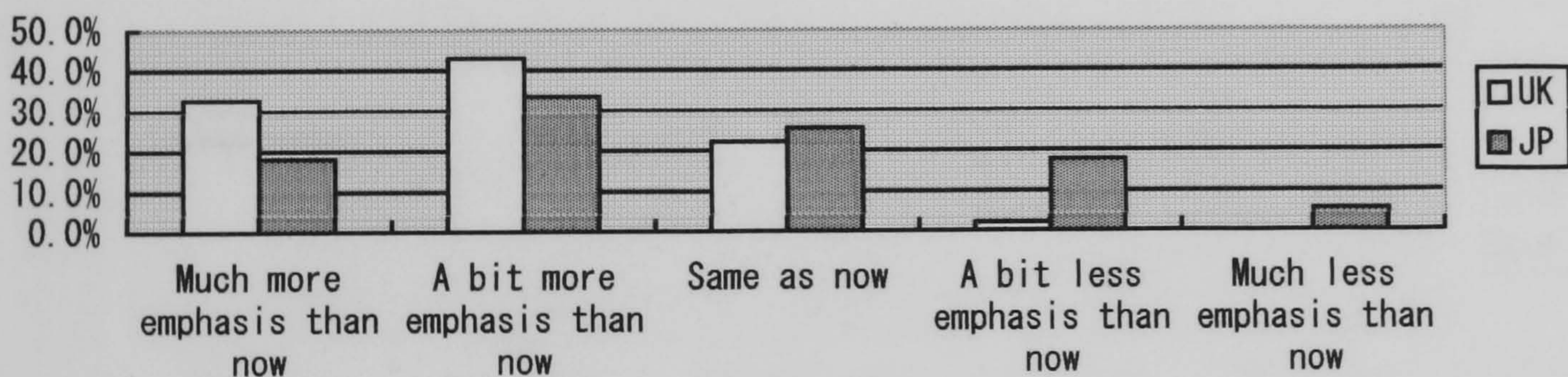
Scores*	1	2	3	4	5	M	SD
UK	41.0%	31.0%	24.5%	2.5%	1.0%	1.92	0.92
JP	20.1%	38.6%	19.0%	15.9%	6.4%	2.50	1.17



Q.8.4. Learning about the culture of people in other countries

Figure 176.

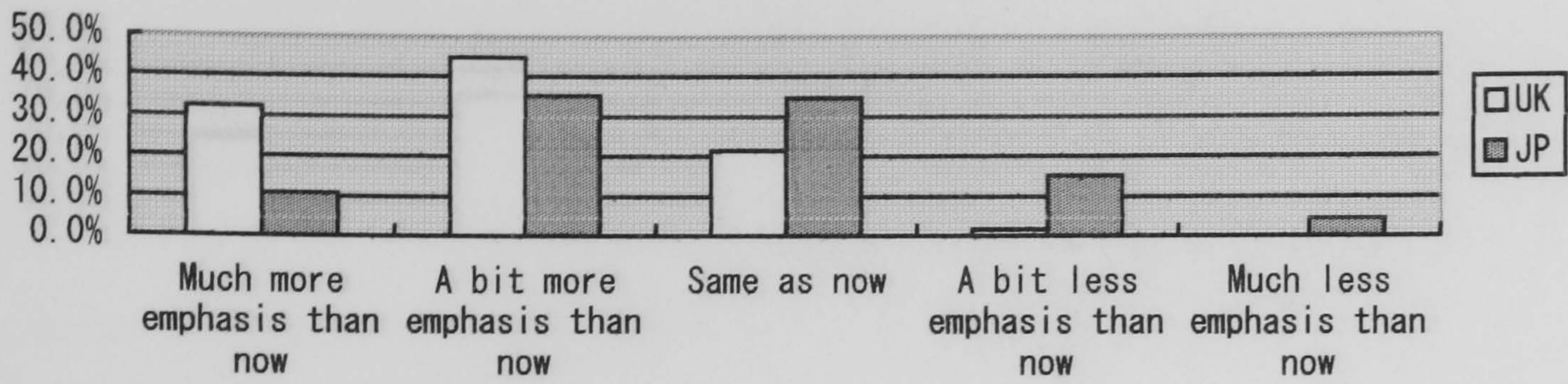
Scores*	1	2	3	4	5	M	SD
UK	32.7%	43.1%	22.3%	2.0%	0%	1.94	0.79
JP	18.7%	32.9%	25.5%	17.6%	5.3%	2.58	1.13



Q.8.5. Learning about the different communities in their own country

Figure 177.

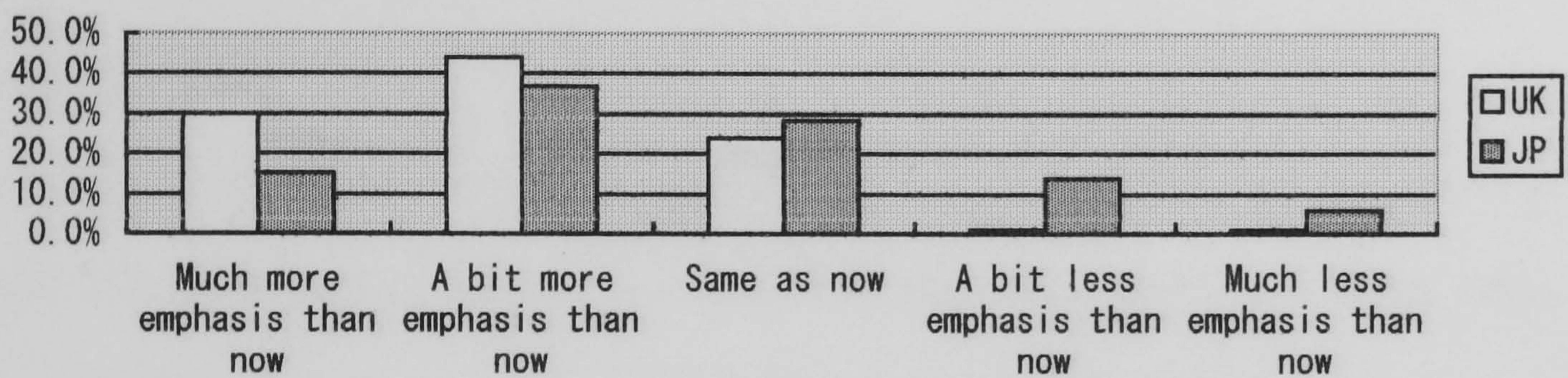
Scores*	1	2	3	4	5	M	SD
UK	32.3%	44.8%	21.4%	1.5%	0.0%	1.92	0.77
JP	10.6%	35.4%	34.9%	14.8%	4.3%	2.67	0.99



Q.8.6. Developing a sense of responsibility towards people living in other countries

Figure 178.

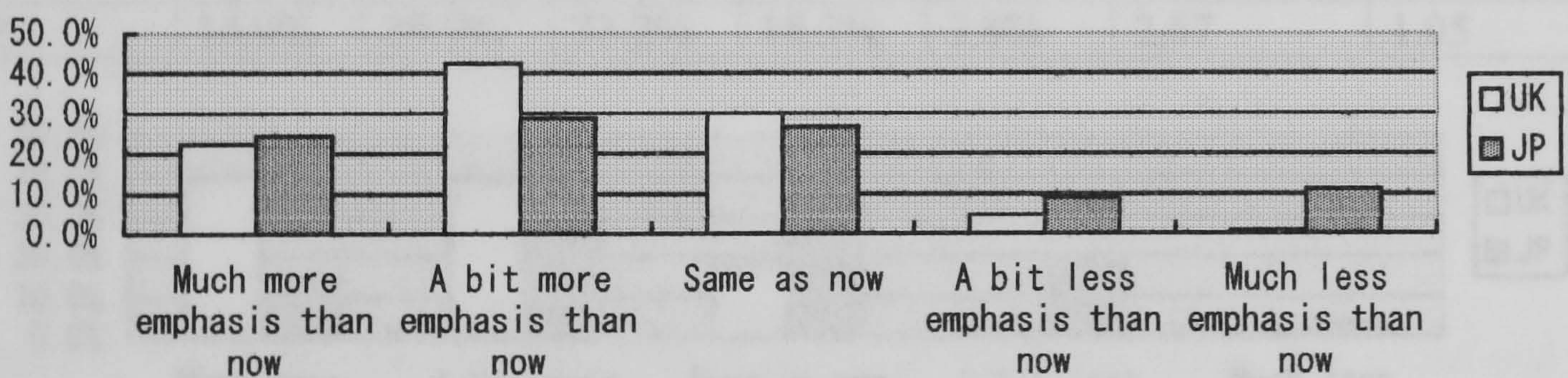
Scores*	1	2	3	4	5	M	SD
UK	30.0%	44.0%	24.0%	1.0%	1.0%	1.99	0.82
JP	14.9%	37.8%	28.2%	13.7%	5.4%	2.59	1.09



Q.8.7. Developing a sense of individual empowerment

Figure 179.

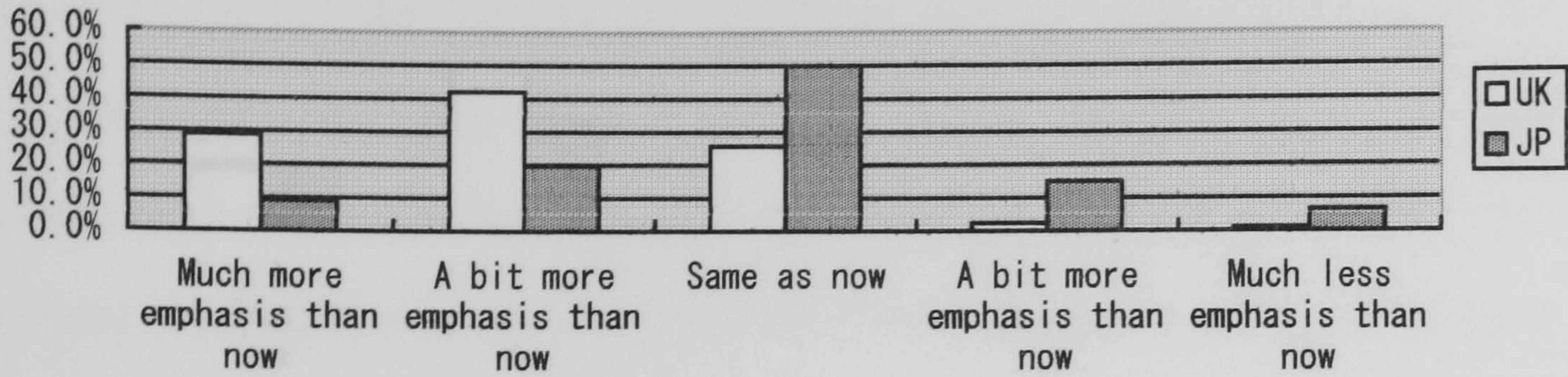
Scores*	1	2	3	4	5	M	SD
UK	22.5%	42.5%	30.0%	4.5%	0.5%	2.18	0.85
JP	23.4%	29.8%	26.6%	9.0%	11.2%	2.54	1.26



Q.8.8. Visiting and living in other countries

Figure 180.

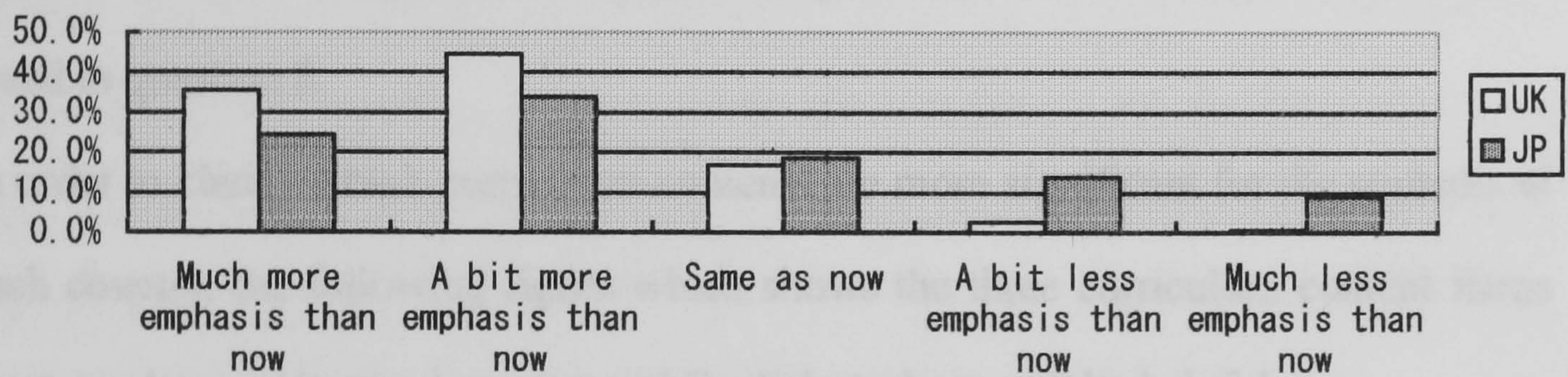
Scores*	1	2	3	4	5	M	SD
UK	28.7%	42.1%	25.7%	2.5%	1.0%	2.05	0.86
JP	9.0%	19.7%	50.0%	14.9%	6.4%	2.89	0.99



Q.8.9. World issues (e.g. environment, human rights, war and peace)

Figure 181.

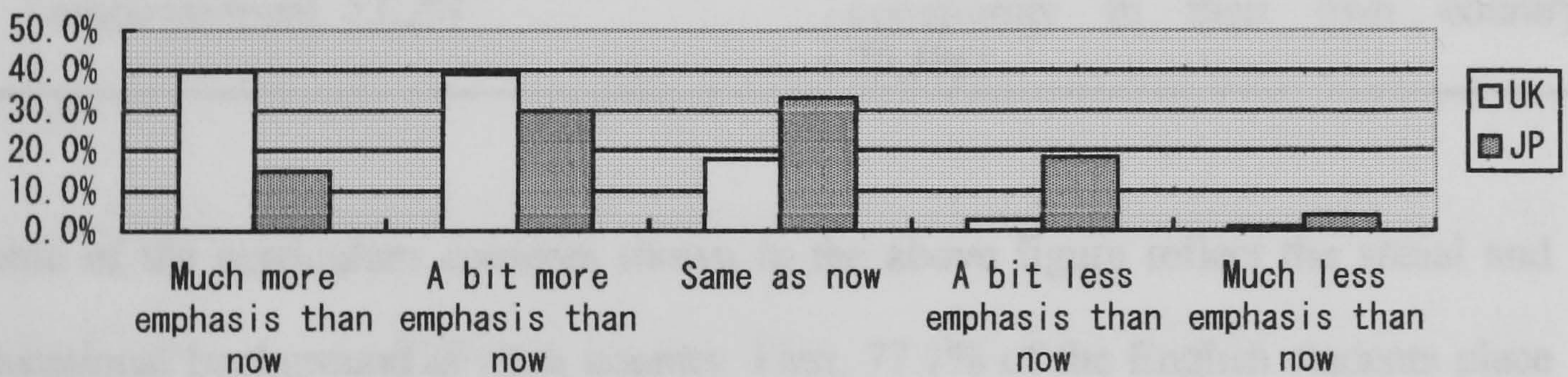
Scores*	1	2	3	4	5	M	SD
UK	35.6%	44.6%	16.8%	2.5%	0.5%	1.88	0.81
JP	24.5%	34.0%	18.6%	13.8%	9.1%	2.47	1.25



Q.8.10. Information and communications technology skills

Figure 182.

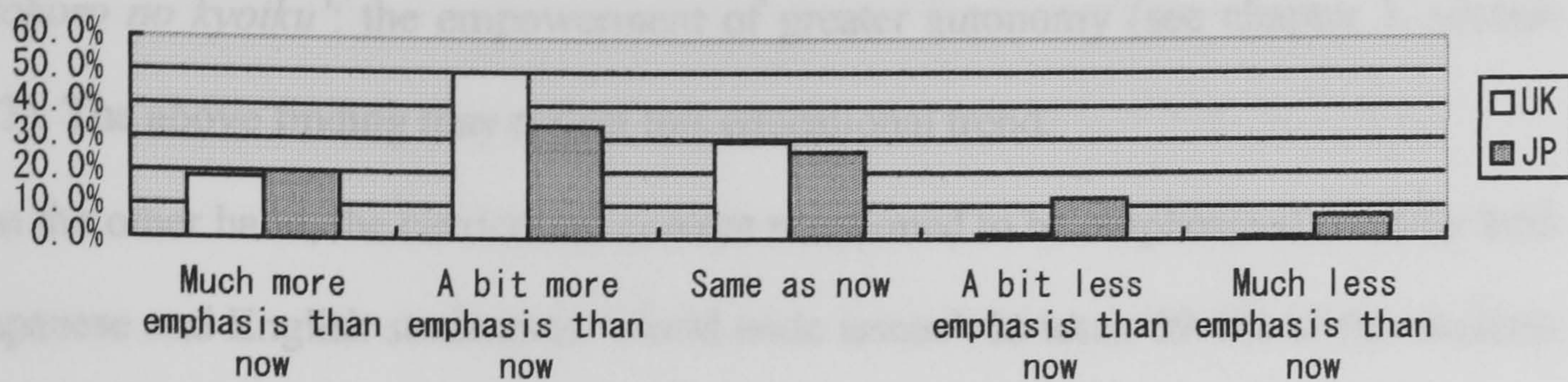
Scores*	1	2	3	4	5	M	SD
UK	39.6%	39.1%	17.8%	2.5%	1.0%	1.86	0.86
JP	14.9%	29.9%	33.2%	18.2%	3.8%	2.67	1.05



Q.8.11. Activities which take place outside school

Figure 183.

Scores*	1	2	3	4	5	M	SD
UK	18.3%	50.0%	29.2%	1.5%	1.0%	2.17	0.77
JP	19.8%	32.6%	26.7%	12.8%	8.1%	2.54	1.16



In a comparison of the mean percentages, more English (71.6%) than Japanese students (46.2%) are positive in emphasising the eleven curriculum content items listed in question 8.

In order to clarify which curriculum contents are more significant for the students of each country, the following figure which shows the three curriculum content items most emphasized by the Japanese and English students will be helpful.

Figure 184. The three curriculum content items noted to be emphasized by the English and Japanese students in question 8

	<i>Japanese students</i>	<i>English students</i>
1	Q.8.3. Foreign languages. 58.7%	Q.8.9. World wide issues. 80.2%
2	Q.8.9. World wide issues. 58.5%	Q.8.10. ICT skills. 78.7%
3	Q.8.6. Developing a sense of individual empowerment. 53.2%	Q.8.5. Learning about the different community in their own country. 77.1%

Some of the curriculum contents shown in the above figure reflect the social and educational background of each country. First, 77.1% of the English students place ‘learning about the different communities in their own country’ in the category ‘much more emphasis’. This finding links to another finding from question 6, and reflects the English multicultural society. Meanwhile, 53.2% of the Japanese students feel ‘developing a sense of individual empowerment’ should be more emphasised. As previously mentioned, the current Japanese educational reform encourages

'kokoro no kyoiku': the empowerment of greater autonomy (see chapter 1, section 1.3). The above finding may reflect this educational trend.

On the other hand, the curriculum content mentioned to be emphasized most by both Japanese and English students is 'world wide issues'. In total, 69.4% of the students from the two countries feel it should be more emphasized (see figure 181).

In interviews, both Japanese and English teachers also frequently mentioned more emphasis on world wide issues in the curriculum contents. Nevertheless, in terms of methodology, findings from the teachers show different views. For instance, English teachers tend to stress more world wide issues in certain subjects such as history and geography, which are often taught in an English centred way. In the meantime, most Japanese teachers seem to believe it would be possible to include more world wide issues in every subject.

Although both students and teachers, regardless of their nationality, are positive in emphasising world wide issues, the above opinions from teachers as practitioners may suggest that the method of introduction of world wide issues in the curriculum content could be slightly different in the two countries.

Apart from that, the curriculum content which both Japanese and English students are least interested to emphasise is 'high-level skills / knowledge' in question 8.2 (see figure 174).

Figure 174 shows that 43.8% of all students of the two countries feel it should be the same as now. In the case of Japanese students, this finding may reflect criticisms about excessively knowledge-based education (see chapter 1, section 1.2). In the case of English students, there are many opinions which insist on not specialised but broader knowledge education which has already been seen in question 6.2. In both cases, this finding may indicate that 'high-level skills / knowledge' in the curriculum content may not need to be emphasized in education for the global age.

There is another interesting finding which should be noted here. In statistical tests,

the largest mean difference between Japanese and English findings through question 8 is about 'visiting and living in other countries' (ANOVA.E. $F = 82.4$, $P < 0.05$).

As we can see in figure 180, more English than Japanese students are strongly positive to emphasise 'visiting and living in other countries'. For one reason, school excursions are part of the Japanese school curriculum, and it is getting popular to visit foreign countries within the programmes (see chapter 5, section 1.3.2). It is possible to say that the above curriculum content item has already been implemented regularly in Japanese secondary schools so that many Japanese students feel it should remain the same as now. Compared with this, there are fewer opportunities for English pupils to visit and live in other countries on school programme for many reasons. Although there are many chances for English young people to visit other countries in many ways, this does not seem to be the case for all pupils as in Japanese schools.

The above finding may indicate that school visiting programmes to different countries are successful in many Japanese secondary schools, and may suggest English secondary schools should encourage more of this type of programme.

In conclusion, the findings from the English and Japanese students for question 8 indicate that the curriculum content including 'world wide issues' should be emphasized more, and 'high-level skills / knowledge' should remain the same as now in both Japanese and English secondary schools.

3.3. TEACHING METHODS

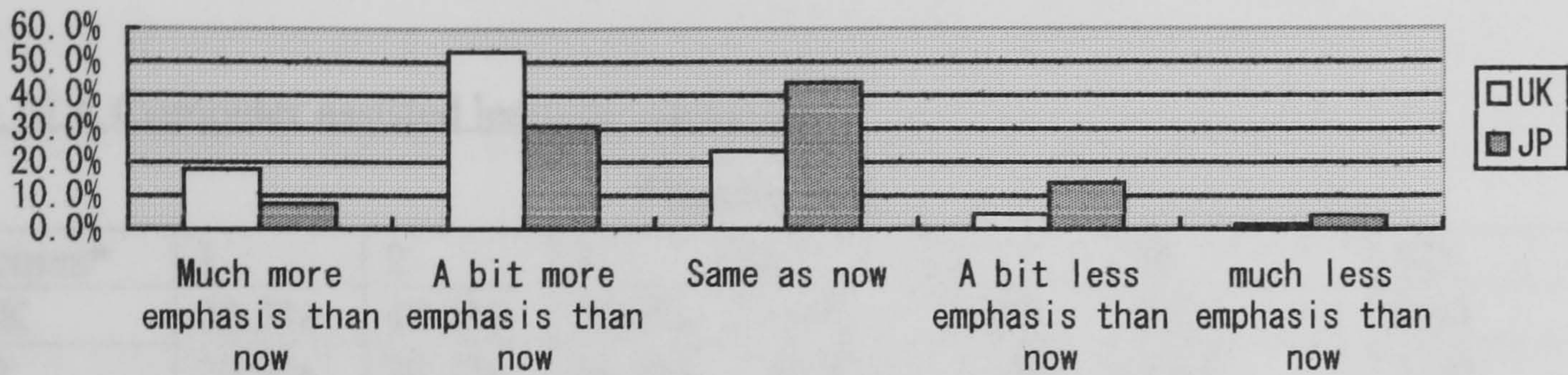
In the questionnaire, question 10 asks about students' views of teaching methods in the global age and lists five teaching methods. The following figures show findings.

Figures 185-189

Q.10.1. Collaborative activities where small groups of pupils have to work together as a team

Figure 185.

Scores*	1	2	3	4	5	M	SD
UK	17.8%	53.0%	23.3%	4.5%	1.5%	2.19	0.83
JP	7.6%	31.4%	43.8%	13.0%	4.2%	2.77	0.93

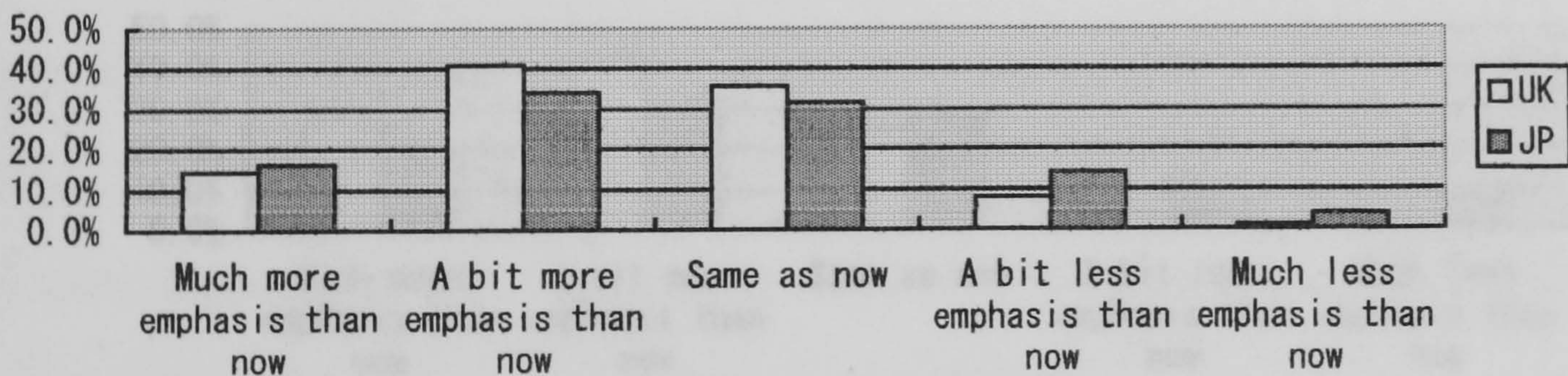


*In the questionnaire, 5 degrees of emphasis are divided into 5 scores as follows: Score 1 = Much more emphasis than now; Score 2 = A bit more emphasis than now; Score 3 = Same as now; Score 4 = A bit less emphasis than now; Score 5 = Much less emphasis than now. More detailed information is in chapter 4 and appendix 2.
M = Mean Score. SD. = Standard deviation.

Q.10.2. Individualised programmes of work where each pupil can work alone at his/her own pace

Figure 186.

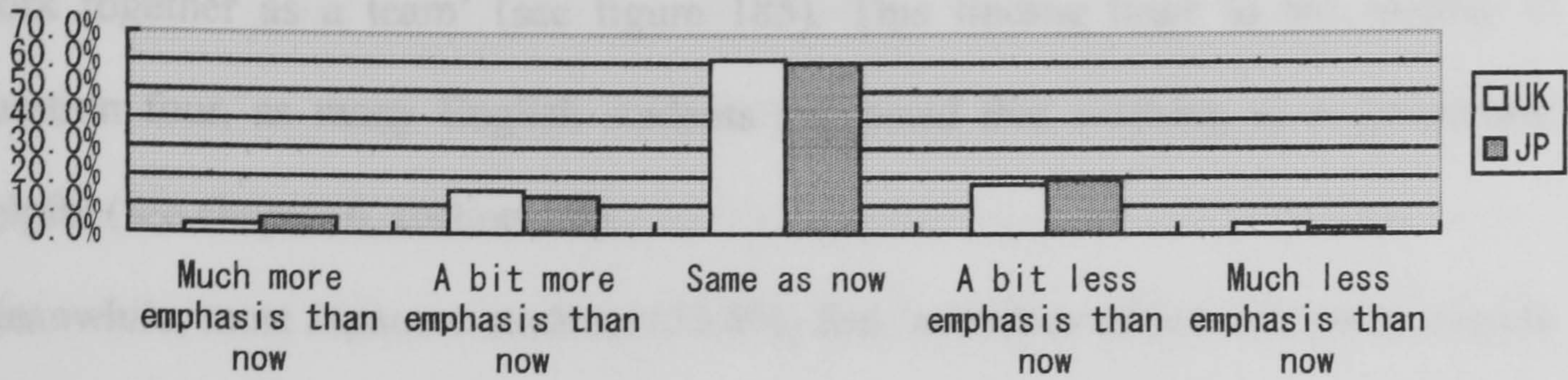
Scores*	1	2	3	4	5	M	SD
UK	14.4%	40.8%	35.8%	8.0%	1.0%	2.40	0.87
JP	16.2%	34.0%	31.4%	14.6%	3.8%	2.55	1.04



Q.10.3. Whole class teaching

Figure 187.

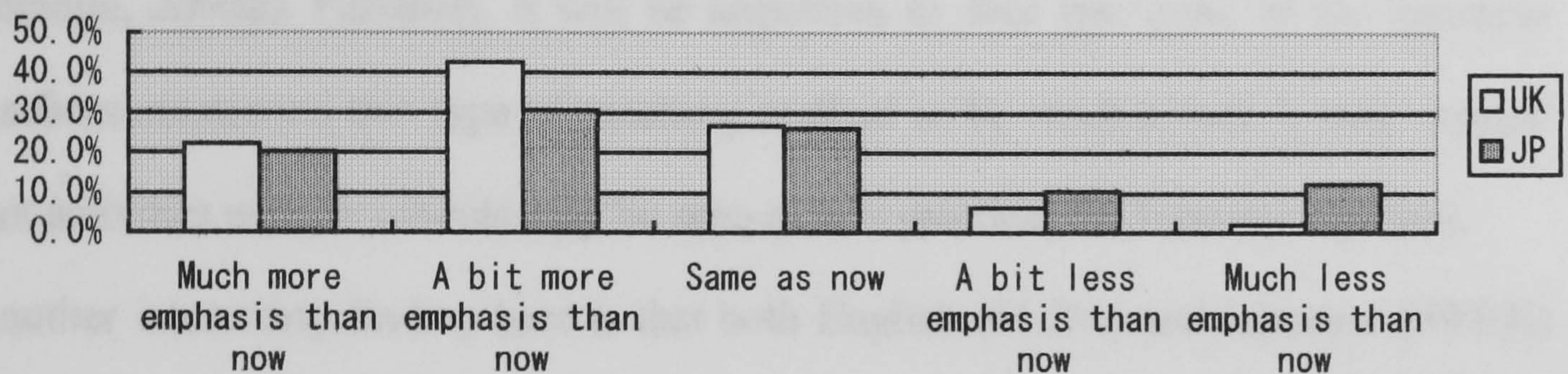
Scores*	1	2	3	4	5	M	SD
UK	3.0%	14.9%	61.2%	17.4%	3.5%	3.03	0.76
JP	5.5%	13.1%	60.0%	19.1%	2.3%	3.02	0.83



Q.10.4. Computer assisted learning packages

Figure 188.

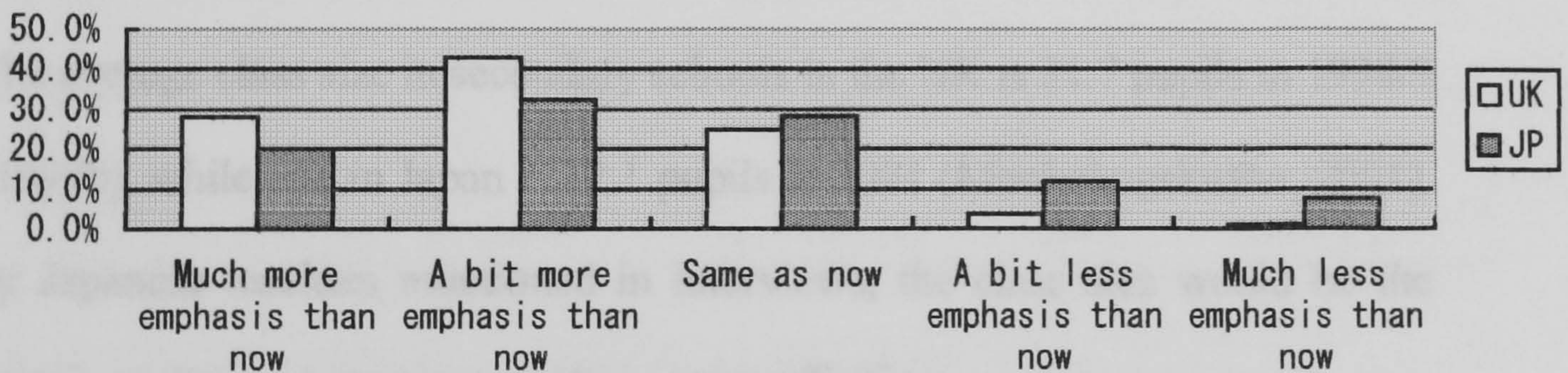
Scores*	1	2	3	4	5	M	SD
UK	22.3%	42.6%	26.7%	6.4%	2.0%	2.23	0.93
JP	20.3%	30.7%	26.1%	10.5%	12.4%	2.64	1.30



Q.10.5. Activities which take place outside school (e.g. work experience, exchange visits, outdoor education)

Figure 189.

Scores*	1	2	3	4	5	M	SD
UK	27.9%	42.8%	24.9%	3.5%	1.0%	2.07	0.87
JP	20.0%	32.4%	28.1%	11.9%	7.6%	2.53	1.15



Generally speaking, the mean percentages show more English (55.9%) than Japanese (42.9%) students are positive about emphasising the above teaching methods.

The teaching method which most English students (70.8%) feel should be emphasized more is 'collaborative activities where small group of pupils have to

work together as a team' (see figure 185). This finding links to the finding in question four, as many English students suggested that working as a group was helpful (see chapter 6, section 1.2).

Meanwhile, most Japanese students (53.8%) feel 'activities which take place outside school' should be more emphasized (see figure 189). This finding may reflect the current Japanese educational movement, since the latest government report on educational reform suggests activities outside school, which will be mainly voluntary work, should be regarded as meriting credits in the school curriculum (Nihon Keizai Shinbun, 2000d). However, it will be important to note that none of the Japanese teachers mentioned this type of teaching method to be emphasized. It may suggest that activities outside schools may be seen as less practical for Japanese teachers.

Another interesting finding here is that both English (61.2%) and Japanese (59.0%) students answer that 'whole class teaching' should remain the same. Although there are many discussions about the advantages and disadvantages of whole class teaching, students' opinions may suggest that 'whole class teaching' will remain as a base of various teaching methods.

Nevertheless, it should be noted that there is a gap between class size in Britain and Japan. The average class size in secondary schools in the UK is 21.7 pupils in 1998/9 (DfEE, 1999b), while one in Japan is 32.1 pupils in 2001 (Monbukagakusho, 2001).

As many Japanese teachers mentioned in interviews, the class size would be the main factor in making whole class teaching more effective.

Apart from the students' views, teachers as practitioners show their various ideas about teaching methods, although teachers' opinions range so widely that teaching methods very much depend on individual teachers.

In general, while a few teachers said that traditional teaching and learning, such as reading, writing, and rote learning will remain the same to a certain degree, others suggest these methods may not be enough in the global age, which consists of an

information-oriented society with new technology.

In the case of English teachers, 66.7% of them mention that teaching methods using ICT and the Internet may be effective. Meanwhile, Japanese teachers mention that teaching methods using the media and audio-visual aids are effective. Furthermore, a few teachers in both countries suggested pupils would need thinking skills to use those high technologies as a tool of learning. Although there are many arguments in using computers, teachers' opinions may suggest that teaching methods using high technology in order to develop pupils' thinking skills will be the centre of the discussion in the global age.

3.4. ASSESSMENT METHODS

The students' views about five assessment methods are asked about in question 12.

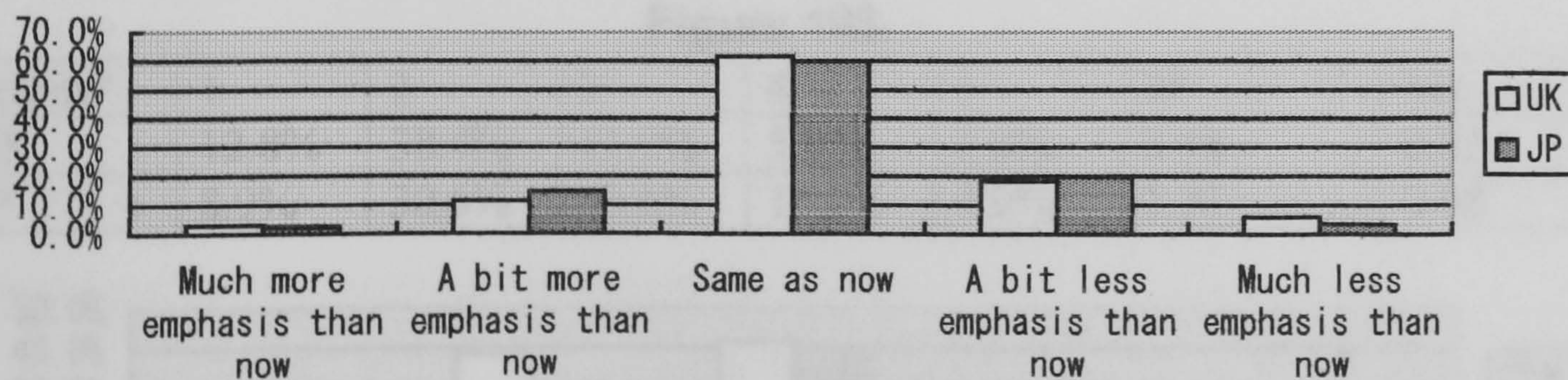
The following figures show findings.

Figures 190-194

Q.12.1. Written examination

Figure 190.

Scores*	1	2	3	4	5	M	SD
UK	3.0%	11.3%	61.6%	18.2%	5.9%	3.13	0.79
JP	2.2%	14.8%	59.9%	19.8%	3.3%	3.07	0.75



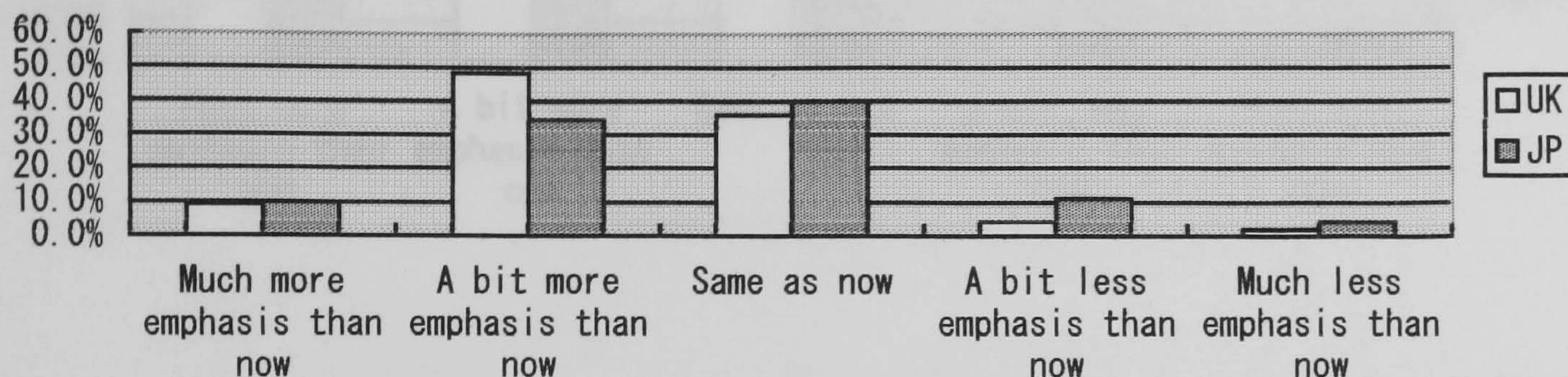
*In the questionnaire, 5 degrees of emphasis are divided into 5 scores as follows: Score 1 = Much more emphasis than now; Score 2 = A bit more emphasis than now; Score 3 = Same as now; Score 4 = A bit less emphasis than now; Score 5 = Much less emphasis than now. More detailed information is in chapter 4 and appendix 2.

M = Mean Score. SD. = Standard deviation.

Q.12.2. Oral examination

Figure 191.

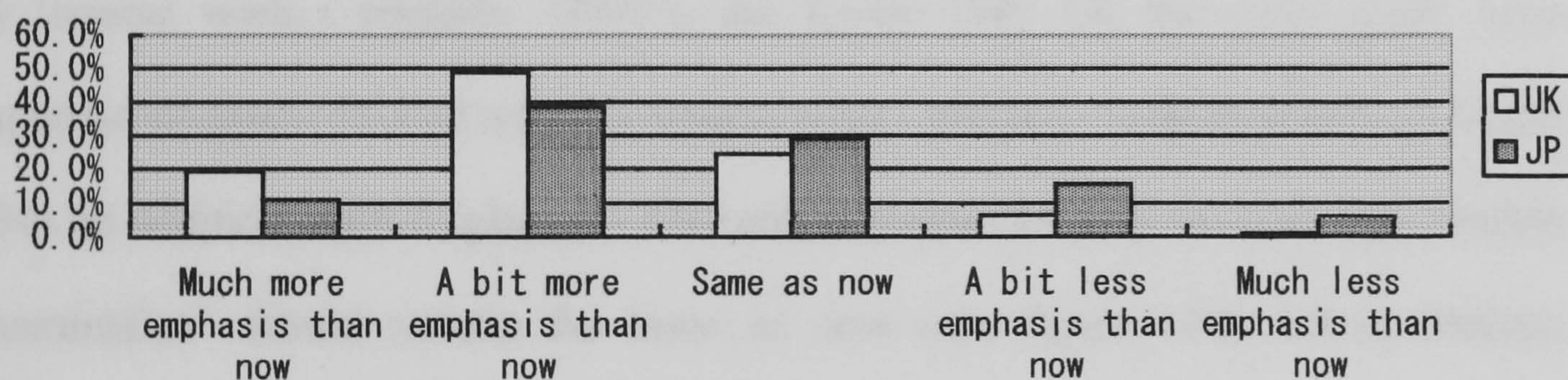
Scores*	1	2	3	4	5	M	SD
UK	9.4%	48.3%	36.0%	4.4%	2.0%	2.41	0.79
JP	9.8%	34.7%	40.2%	11.0%	4.3%	2.65	0.95



Q.12.3. Presentation in a class

Figure 192.

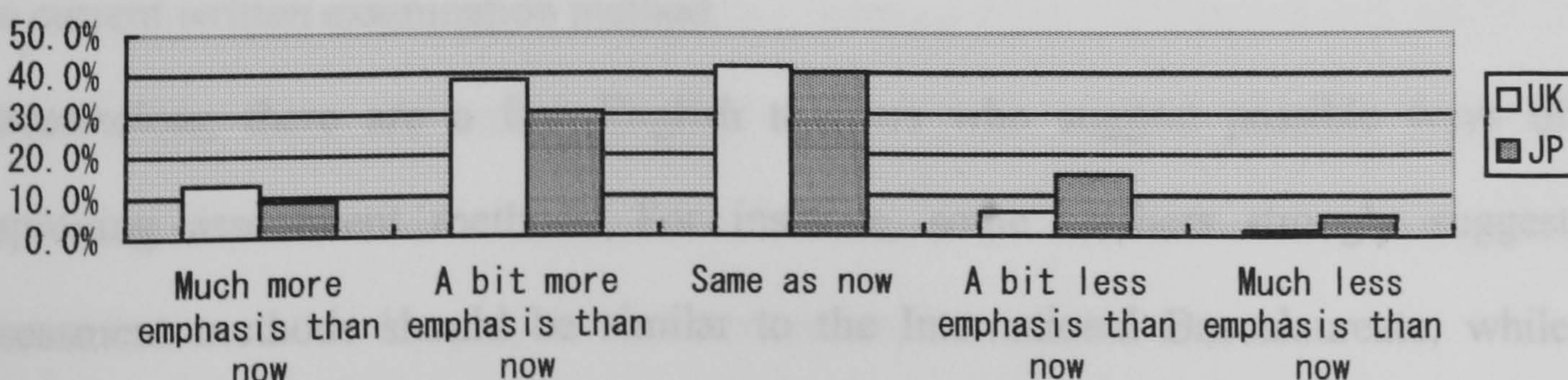
Scores*	1	2	3	4	5	M	SD
UK	19.2%	48.8%	24.6%	6.4%	1.0%	2.21	0.86
JP	11.0%	38.5%	29.1%	15.6%	5.8%	2.67	1.05



Q.12.4. Thesis / Research report

Figure 193.

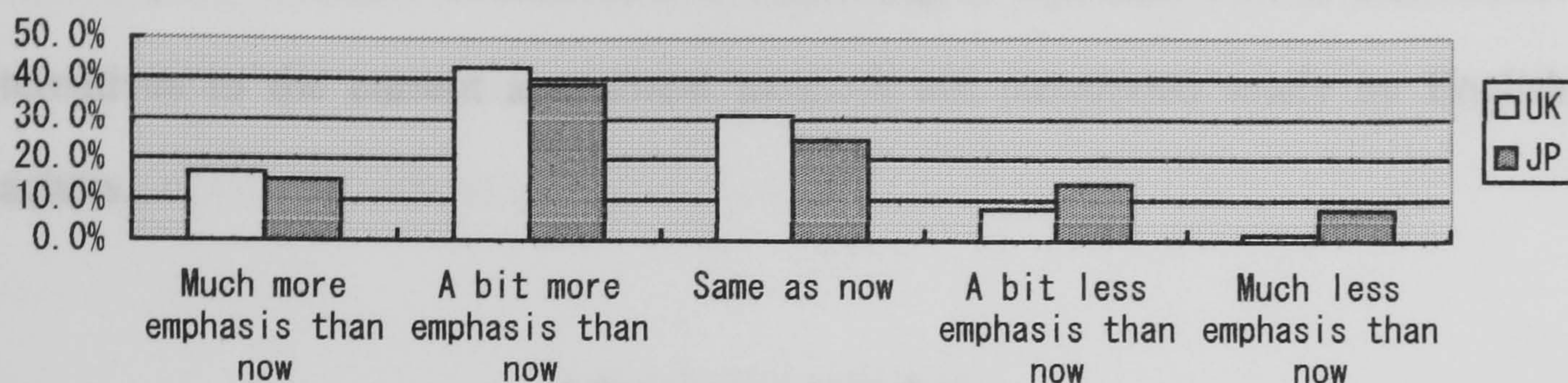
Scores*	1	2	3	4	5	M	SD
UK	12.8%	38.4%	41.9%	5.9%	1.0%	2.44	0.82
JP	8.9%	30.6%	40.6%	15.0%	4.9%	2.77	0.98



Q.12.5. Course work / projects

Figure 194.

Scores*	1	2	3	4	5	M	SD
UK	16.7%	42.9%	31.0%	7.9%	1.5%	2.34	0.90
JP	14.9%	38.2%	24.8%	14.4%	7.7%	2.61	1.13



The main point of findings for the assessment methods is that both English and Japanese students show very similar opinions.

First, according to opinions of the English students, assessment methods which should be emphasized are ‘presentation in a class’ (68.0%, see figure 192), followed by ‘course work / projects’ (59.6%, see figure 194). On the other hand, most Japanese students (53.1%) selected ‘course work / projects’ to be emphasized (figure 194). In addition, both English (61.6%) and Japanese (59.9%) students feel ‘written examination’ should remain the same as now (see figure 190). These findings indicate that both Japanese and English students prefer to emphasise continuous assessment methods, although most of them recognise the value of traditional methods.

Meanwhile, opinions from the English and Japanese teachers suggest that the base of assessment methods will not change, although there are many teachers who criticise the current written examination method.

Nevertheless, there are a few English teachers who suggest possible ways of improving assessment methods. For instance, some teachers strongly suggest assessment methods should be similar to the International Baccalaureate, while others see that on-line assessment might be increased. In addition, some of them

indicate the introduction of more continuous assessment methods with detailed methodological arguments.

Although both English and Japanese teachers recognise that assessment methods are a crucial part of school education, it is interesting to find that various ideas about alternatives to the current assessment methods are mentioned solely by English teachers.

A Summary of Findings

Students' and teachers' views about education for the global age are examined through the four aspects of education: the aims of education; curriculum content; teaching methods and assessment methods.

On the whole, more English than Japanese students are positive to emphasise the four aspects of education, which are listed through questions 6, 8, 10 and 12.

Some differences found between Japanese and English outcomes reflect the educational and social background of each country. For instance, most English students feel the aim including 'to help pupils to develop an understanding of different communities in their own country' should be emphasized, while most Japanese students feel 'to help pupils to exercise greater autonomy' should be emphasized. These two aims obviously link to multicultural society in England, and the current Japanese educational movement which concentrates on humanistic development.

On the other hand, there are a few similar opinions from the English and Japanese students. These are, for instance, more emphasis on 'world wide issues' in the curriculum, broader rather than specialised knowledge education, more continuous assessment as well as keeping written examinations the same as now.

Apart from students, teachers from the two countries also show similar opinions.

Nevertheless, it is important to note that English teachers' opinions range more widely and suggest possible ways to improve difficult circumstances for the global age.

In conclusion, findings from the two countries have some different opinions which are often affected by educational and social differences, and some similar opinions which should be considered in both countries.

Further Discussion

For one thing, the above findings suggest that the four aspects of education are often influenced by the social and cultural aspects of each country. This suggests that educational issues are so strongly connected with society and culture that it is essential to take these aspects in consideration. In the case of England, it is important to understand its multicultural society, and in Japan, personal, social education will be one of the key issues in the global age.

In this respect, teachers' opinions from the two countries are also very interesting. In many cases, English teachers showed a variety of opinions while most Japanese teachers' opinions tend to be very similar. Although there are neither statistics nor evidence to state this, these differences may also reflect the nature of English people who are rather individualistic and Japanese people who have less individualistic identities and try to respect harmony.

Nevertheless, there are some significant issues which are suggested by the respondents in both countries. For instance, findings indicate that broader knowledge education including world wide issues and more continuous assessment methods are universally significant and fundamental issues. Those issues may be significant in any leading country in consideration of education for the global age.

SECTION 4. VIEWS ABOUT PROBLEMS OF IMPLEMENTING EDUCATION FOR THE GLOBAL AGE AT SECONDARY SCHOOL

In this section, students' and teachers' views about problems of implementing education for the global age at secondary school will be described. In the questionnaire, questions 7, 9, 11 and 13 asked about students' views about possible problems as follows:

Question 7. Do you feel problems will occur if changes in the aims of education are to be implemented?

Question 9. Do you feel problems will occur if changes in the content of school curriculum are to be implemented?

Question 11. Do you feel problems will occur if changes in teaching methods are to be implemented?

Question 13. Do you feel problems will occur if changes in assessment methods are to be implemented?

First of all, the respondents simply answer for the above questions 'yes' or 'no'. The following figure shows the mean percentages of those who answer 'yes'.

Figure 177. The mean percentages of those who answer 'yes'

Questions (The four aspects of education)	English	Japanese	Altogether
7. the aims of education	55.6%	53.3%	54.4%
9. the content of school curriculum	55.4%	48.7%	52.1%
11. teaching methods	45.3%	35.8%	40.6%
13. assessment methods	37.3%	32.3%	34.8%

The above figure shows that more English than Japanese students answer 'yes', which means more English than Japanese feel some problems will occur if changes in the four aspects of education are implemented. In total, students' views illustrate that changing the aims of education (Q.7) and the content of school curriculum (Q.

9) rather than changing teaching and assessment (Q.11 and 13) methods will be problematic.

In terms of a comparison between students who undertake teacher training courses (EE and JE) and other courses (EO and JO), the following figure shows more students in groups EE and JE than groups EO and JO feel some problems will happen in implementing education for the global age.

Figure 178. The mean percentage of those who answer 'yes' in q.7, 9, 11 and 13

<i>Questions</i>	<i>EE / JE</i>	<i>EO / JO</i>
7, 9, 11, 13	50.5%	38.4%

Secondly, the respondents are also asked to describe their opinions about possible problems. Those opinions are divided into the five categories: (1) problems for teachers; (2) problems for school; (3) problems for pupils; (4) problems in the four aspects of education; (5) problems in social and cultural context. In the following sub-sections, students' and teachers' views are described.

SECTION 4.1. PROBLEMS FOR TEACHERS

First, the English and Japanese students' opinions about possible problems for teachers which are frequently observed are summarised in the following figure.

Figure 179. Topics which relevant to problems for teachers

Questions	English	Japanese
7. <i>The aims of education</i>	Teachers' re-training (15)	Teachers' ability (12)
	Greater workload for teachers (4)	Greater workload for teachers (5)
		Teachers' rejection: "conservatives" (3)
9. <i>The content of the school curriculum</i>	Teachers' re-training (7)	Teachers' re-training (8)
	Teachers' rejection: "No more change" (3)	Teachers' ability (8)
11. <i>Teaching methods</i>	Teachers' re-training (7)	Lack of the number of teachers (10)
	Teachers' rejection: "traditionalists" (4)	Teachers' ability (6)
13. <i>Assessment methods</i>	Teachers' re-training (6)	Teachers' ability (2)
		Greater workload for teachers (2)

* The number in parenthesis is the number of students who note similar topics.

Analysis

According to the above figure, it is obvious that most opinions mentioned by the English and Japanese students are quite similar. First, 35 English and eight Japanese students note a need of re-training of teachers through the questions as problems for teachers. In the case of Japanese findings, 28 students refer to 'teachers' ability' quite often, and it could be included in further need of re-training of teachers.

This type of problem is also mentioned by both English and Japanese teachers. Some English teachers, who are in the younger generation, insist that there is a need of re-training of teachers in order to develop ICT skills and change attitudes towards using technology. In the meantime, Japanese teachers mention this type of problem in terms of assessment methods. Although they obviously hesitate to use the term "teachers' ability" in the same way as Japanese students, they often refer to more demands on "examiners' ability" at entrance examinations to university, which is supposed to be the most significant goal in Japanese education.

Secondly, another frequently observed opinion about problems for teachers by both English and Japanese students is ‘greater workload for teachers’. It should be noted that there are a few Japanese teachers who mention this type of problem, while none of the English teachers argued it.

In addition, both English and Japanese students are very concerned with ‘teachers’ rejections’ of implementing of education for the global age. In both cases, students describe those who may reject changes as “traditionalists” or “conservatives”, who are basically senior teachers. This type of problem covers wide discussions, since it includes criticisms of a system in teachers’ relationships (community? society? group? association?) in school which often tend to be bureaucratic. In fact, a English teacher criticises bureaucracy for distracting teachers from their teaching task, and some Japanese teachers also mention that some may reject changes in order to keep their status.

Moreover, in the case of English students, they often mention that teachers’ work is already excessive because of demands of the government policies and the National Curriculum, which are frequently changing. As already mentioned in the above, there were no English teachers who presumed their work would be excessive in implementing education for the global age. However, there are a few English teachers who describe their working condition as very severe because of pressures of the so-called league table and changing government policies which always affect school education in England.

Finally, there are some Japanese students who note that the number of teachers is not enough. This type of opinion is also found from some English teachers and a few English students. Nevertheless, this type of problem and re-training of teachers cover not only teachers’ but also schools’ matters which will be described in the following sub-section.

SECTION 4.2. PROBLEMS FOR SCHOOL

Among various types of problems which were mentioned by the respondents from the two countries, problems for schools seemed the most practical issues to overcome. The following figure shows topics of potential problems for school in implementing education for the global age provided by the English and Japanese students.

Figure 180. Topics which are relevant to problems for school

Questions	English	Japanese
7. <i>The aims of education</i>	It will take time. (7)	It will take time (7)
	Cost (4)	Areas are too wide to cover. (3)
	Time-tabling (3)	Time-tabling (7)
9. <i>The content of the school curriculum</i>	Cost (4)	Cost (13)
	Time-tabling (4)	Time-tabling (12)
11. <i>Teaching methods</i>	Cost for “re-training of teachers” and “ICT, visiting abroad and work experience programmes” (10)	Cost (4)
		Time-tabling (3)
	A size of the class (2)	A size of the class (3)
13. <i>Assessment methods</i>	It will take time. (2)	Time-tabling (3)
	Greater administrative workload for teachers (2)	

* The number in parenthesis is the number of students who note the same topics.

Analysis

The above figure shows most opinions about ‘problems for school’ are very similar and point out very practical issues. First of all, 18 English and 17 Japanese students mention “cost”, funding problems. It is also worth noting that almost all of the English teachers mention funding problems, while there are only a few Japanese

teachers who state funds as a problem. (For one possible reason, the Japanese secondary school employed for teachers' interviews in this research is a private school which is not solely maintained by public funding and may be relatively flexible in financial management, compared with public schools.)

In addition, a problem of the class size, which some respondents from the two countries mentioned, would relate to funding problems. Logically, it would be possible to reduce the number of the pupils per class, if there were more teachers. Moreover, in terms of quality of education, increasing the number of teachers will be a significant issue.

In any case, many respondents regardless of their nationality, suggest that more funds for resources, facilities such as new modern buildings, ICT and for re-training of teachers and increasing the number of teachers are inevitable for education for the global age. Nevertheless, it will be worth noting that a few English students and teachers mention that creating links with business, such as sponsorships, could be one of the possible solutions in funding problems.

Meanwhile, there is another problem which is mentioned by many students. It is about the time-tabling. There are many students who feel that 'areas of education for the global age are too wide to cover', so that time-tabling will be a problem to include everything. This opinion suggests that some of the existing curriculum contents may need to be abandoned to a degree. It may require profound consideration in selection, and modification for the right balance of curriculum contents which need to be effective for the global age.

After all the above possible problems, it is rational that many students regardless of their nationality find it will take time to adjust everything in a well balanced way. In conclusion, it becomes clear that the problems mentioned in this section are very practical and universal and require careful consideration in implementing of education for the global age.

SECTION 4.3. PROBLEMS FOR PUPILS

In the questionnaire, both English and Japanese students state a few opinions which are about 'problems for pupils' in implementing education for the global age. Nevertheless, those opinions range widely and seem to differ between the two countries. The following figure shows some topics with which students are concerned.

Figure 181. Topics which relevant to problems for pupils

Questions	English	Japanese
7. <i>The aims of education</i>	Developing a sense of belonging to an international society. (1)	Letting down standards of basic knowledge. (4)
9. <i>The content of the school curriculum</i>	Too much focus on globalisation is less effective. (1)	Too much specialised knowledge (3)
11. <i>Teaching methods</i>	Equal access to technology (1)	Using individualised programme creates too much individualistic person.(4)
13. <i>Assessment methods</i>	Confusion for pupils to adjust (2)	Confusion for pupils to adjust (6)

* The number in parenthesis is the number of students who note similar topics.

Analysis

In general, there are two points which English students note. According to the above figure, providing equal opportunities for technology and developing pupils' awareness of an international society and globalisation will be key issues for English pupils.

Meanwhile, some Japanese students and teachers, especially science teachers, are concerned with maintaining high standards of basic knowledge. In addition, there are some students who believe that individualised programmes create too individualistic

a person and lessens opportunities to learn social common sense.

In a sense, the above opinions may reflect a social aspect of each country. For instance, when access to technology such as computers tends to depend on either the school budget or personal background, this type of problem can be fatal for English pupils because of a large gap between the finances of the leading Public schools and others especially in deprived area. On the other hand, developing too individualistic a person is very hazardous in a society like Japan, which respects harmony and mutual understanding.

Nevertheless, it is important to note that an opinion about confusions for pupils in adjusting to changes is found in both countries.

SECTION 4.4. PROBLEMS IN THE FOUR ASPECTS OF EDUCATION

In this sub-section, the respondents' views about fundamental problems in the four aspects of education are shown. In the same way as previous sub-sections, topics of problems in the four aspects of education noted by English and Japanese students are illustrated in the following figure.

Figure 182. Topics which relevant to problems in the four aspects of education

Questions	English	Japanese
7. <i>The aims of education</i>	Too large scale to change. (4)	Developing an identity as Japanese is more important than world citizenship education. (3)
9. <i>The content of the school curriculum</i>	Too large areas to cover. (6)	Visiting abroad should not be sight-seeing (1)
11. <i>Teaching methods</i>	Individualised programme is impossible. (1)	Individualised programme is impossible. (7)
	Personal teaching is far more effective than computer based one. (1)	
13. <i>Assessment methods</i>	How to assess. Need "standards". (11)	How to assess. "Too much dependence on teachers' subjectivity. (19)

* The number in parenthesis is the number of students who note similar topics.

Analysis

In the above figure, there is an interesting finding from students from the two countries. First, one Japanese student mentions that a programme for visiting abroad, which is sometimes seen as not learning but a sightseeing tour, is a problem. Meanwhile, there is an English student who believes personal teaching is much more effective than computer based study so that an emphasis on it should be carefully considered. These two opinions are very powerful; first because they are based on the respondents' own experience, second because those two topics are common in one country but not in to other.

For instance, the 'visiting abroad' programme is getting popular in Japanese secondary schools, as previously described, while it is not in England; and there are many students and teachers who would like to emphasise it more. On the other hand, ICT in schools is already one of the compulsory curriculum components in England and there are many schools which already have sufficient facilities for that. In

Japanese schools, it is also getting popular but its pace is very slow.

Accordingly, the above opinion mentioned by students can be a warning for each others' countries and provide an opportunity to learn about advantages and disadvantages from each other.

Apart from that, there is a common view about fundamental problems in the four aspects of education between English and Japanese students. This is about 'individualised programmes'. Although in question 10.2, more than half of the English and Japanese students answer that individualised programmes should be emphasized (see figures 55 and 125), a critical opinion about it is found from both countries. It suggests that individualised programmes are a typical issue which is attractive in theory but not in practice.

Moreover, both English and Japanese students are very concerned with reliability in continuous assessment methods, although the findings in previous chapters show that continuous assessment methods including oral, presentation and coursework are very much favoured by all respondents. There are also Japanese and English teachers who mention the difficulty of continuous assessment methods. As one of the English students mentions in the above figure, standardisation of assessment methods including continuous ones will be one of the common key issues in education for the global age in England and Japan.

SECTION 4.5. PROBLEMS IN SOCIAL AND CULTURAL CONTEXT

Lastly, the English and Japanese respondents' views about problems in the social and cultural context should be examined here. As previously shown in chapters 5 and 6, English and Japanese students' and teachers' views about possible problems in implementing education for the global age, which are linked to their social and cultural background, may be the most striking as well as significant findings for this

study. The following figure shows some important topics mentioned by students.

Figure 183. Topics which are relevant to problems in social and cultural context

Questions	English	Japanese
7. <i>The aims of education</i>	England has insular world views. (1)	A stiff system of examinations for university and academically hierarchical society prevent any changes. (15)
	Parents' influences (2)	Rejection from "Conservatives" (5)
9. <i>The content of the school curriculum</i>	Confusions for too many changes (3)	Too large gap between the contents of entrance examinations (3)
	Parents' attitudes (1)	
11. <i>Teaching methods</i>	Parents' attitudes (1)	The reality won't change so easily. (2)
13. <i>Assessment methods</i>	NA	It depends on contents of entrance examinations. (2)

* The number in parenthesis is the number of students who note similar topics.

Analysis

The topics listed in the above figure well indicate cultural, social and educational differences of England and Japan. In the case of Japan, students' opinions show how strongly entrance examinations to university affect secondary school education. It also links to the Japanese social background, which tends to value academic record rather than other personal abilities. Moreover, the presence of 'conservatives' who are reluctant to update their education system, may be one of the indications that Japanese society is reluctant to accept new ideas.

On the other hand, opinions from English students reveal that English people have rather insular world views, in spite of their multicultural society. For a part cause of this phenomenon, parents' influences seem to be fairly strong. Some English teachers also mention that the most difficult problem is to change peoples' attitudes

and this cannot be solely done by school education. In addition, both English teachers and students believe that the school curriculum in England is not stable, partly because of too much political interference, and it causes a lot of confusion for teachers. This phenomenon makes a very interesting contrast to Japanese findings, which insist that Japanese society and education are firm and stable.

In conclusion, the respondents' opinions for this category indicate that social and cultural influences on education are so strong that it is impossible to discuss education for the global age without considerations of those factors.

A Summary of Findings

It may be fair to say that students' and teachers' views about problems in implementing education for the global age are generally similar between the two countries. First, the main points of 'problems for teachers' are re-training of teachers and ensuring a sufficient number of teachers. Especially in the case of England, decreasing the pressures from the National Curriculum and so-called league tables are stated as key problems for teachers.

Second, opinions in the category of 'problems for schools' are very practical ones among the respondents in the two countries. Most of all, the respondents clearly suggest funds will be one of the fundamental problems for schools.

Meanwhile, opinions about 'problems for pupils' range widely and seem to be different in each country. For instance, some English students mention equal opportunities to technology for pupils, while Japanese students are concerned with academic standards of pupils. Nevertheless, students from both countries agree that changes in education preparing for the global age will cause confusion for pupils.

In a category of 'problems in the four aspects of education', both English and Japanese students state that individualised programmes are simply impossible and

standardisation of continuous assessment will be necessary. In addition, some advisory opinions for each other country are found in this category.

Lastly, ‘problems in the cultural and social context’ noted by the respondents are very striking and illustrate the cultural, social and educational differences of the two countries. There are many opinions which illustrate differences of the two countries in educational background, and they indicate that a discussion of education for the global age surely needs to involve the social and cultural issues of each country.

Further discussion

In the same way as findings in the previous section, which is about respondents’ views about education for the global age, it becomes clear that influences of social and cultural aspects on education are enormous and impossible to ignore in the discussion of education for the global age. More importantly, social demands, which can be found behind the findings from the respondents, seem to often lead them to make complicated, sometimes almost contradictory remarks.

For instance, English students who are living in a multicultural society tend to have rather insular, world wide views. In addition, they tend to insist that emphasis on developing a sense of belonging to international society might be less effective, although they feel more emphasis of understanding of different cultures and communities is important. Meanwhile, Japanese students seem to fear to lose their high academic standards, even though they strongly criticise their society, which solely values the academic career; and insist that more humanistic rather than academic education should be emphasized in the global age.

The above remarks led the researcher to further consideration: the discussion of education for the global age should not proceed rapidly and radically, but needs to find a rightly balanced way in which both progressives and traditionalists can

compromise, since it involves not only educational but also other issues. Namely, it will take time, as some students have mentioned.

However, it also should be noted that some practical opinions to implement education for the global age are mentioned by the respondents, and they seem to be universal. First of all, the funding problem is the most practical and fundamental problem in both countries. It involves re-training of teachers and increasing of the number of teachers. Nevertheless, it is very important and gives cause for optimism to note that a few teachers have mentioned possible solutions for this problem such as sponsorships from business links.

Time-tabling also needs to be carefully re-structured because education for the global age covers a very wide range of topics and concerns. This finding suggests some curriculum content items need to be abandoned and combined with others to a degree. It means that making a rightly balanced curriculum is another task for those who deal with curriculum issues.

It also becomes clear that individualised programmes are fine in theory but may be difficult in practice. Meanwhile, continuous assessments need to be carefully considered, since these require a benchmark to assess fairly but are still the most favourable method that all respondents would like to emphasise in the global age.

The above practical problems might be universal ones since they are mentioned by the respondents regardless of their nationality. At the same time, they may be the issues from which all nations can learn from each other.

SECTION 5. VIEWS ABOUT CURRENT EXAMINATION SYSTEM

Students and teachers were asked about their views about the current examination system. In the case of Japanese research it is about entrance examinations to university, and in the English research, the respondents were asked about GCSEs and

A-levels.

As previously mentioned, the type of examination in Japan and in England is very different. Japanese entrance examinations to university are purely to examine pupils' academic achievements, while GCSEs and A-levels are regarded as a qualification rather than examination. It should be noted that it is very difficult to simply compare findings for this key research question from the two countries.

However, findings shown in chapters 5 and 6 indicate that the influence of examinations to secondary school education is enormous in both countries. For instance, many English teachers feel a lot of pressure to raise results of GCSEs, and to prepare for the so-called league table. Meanwhile, opinions from Japanese students and teachers show that secondary school education is almost regarded as a preparation for entrance examinations to university. These findings indicate that 'examinations', whatever its type and system is and however it is called, occupy a large part of secondary school education in both countries.

Accordingly, in this study, looking at students' and teachers' views about examinations is important when considering education for the global age. In the case of Japanese research, 'examination' refers to entrance examinations to university, while it applies to GCSEs and A-levels in the case of English study. In this section, opinions from English and Japanese respondents are compared briefly in order to look at how examinations influence secondary school education in each country. Opinions from the two countries are divided into three categories as follows:

1. Opinions which suggest change
2. Opinions which do not suggest change
3. Other popular opinions in each country

First, there are many opinions which suggest changing examinations in some ways. The following figure shows the most frequently observed opinions suggesting how

to change the current examination system.

Figure 184. The most frequently observed opinions suggesting how to change examinations*

	UK	JAPAN
1	Students should not specialise quite as much. A broader, more liberal syllabus should be covered. More flexibility, choices. (30)**	More oral rather than written examination. (33)
2	The same examination board. (18)	More examination on personal / humanistic development of each pupil. (29)
3	More course work, research projects. (15)	More essay-format examination. (15)

*In the case of English findings, “examinations” include GCSEs and A-levels.

** The researcher summarised comments. The number in parenthesis is the number of students who note similar opinions.

Analysis

The above figure shows students’ opinions about changes in examinations. What is clear from the above figure is that many Japanese students concentrate on changing the method of examinations, while English students mention not only methods of examinations but also their system and contents.

For one reason, the Japanese system is not as complicated as the system of entry in England. In the case of Japan, most students only need to take a written examination which university requires. However, in the case of England, each university assesses different levels or kinds of requirements according to each pupil’s records and ability.

An English teacher mentions that even though the content requirement is basically set by UCAS, it is still possible for each university to set its own entrance policies. Even more, the examination board is not standardised as many students argue. The system of entry to university in England is complex both for pupils and teachers.

As already mentioned in chapter six, the entry system in England is rich in variety

and rather favourable in terms of higher education as lifelong learning. However, at the same time, it can cause unnecessary confusion for teachers and pupils. In this respect, the Japanese system seems much more plain and clear, although it also has disadvantages.

Secondly, there are opinions which do not suggest a change in examinations in both countries, although not many can be found. The following figure shows frequently observed opinions which belong to this category.

Figure 185. The most frequently observed opinions which do not suggest a change to examinations*

	UK	JAPAN
1	Current system of specialising at A-level should be continued. More depth to each subject. (4)**	They don't have to change (2), because theory and practice is always different (1), and it is fair for all pupils to be examined by one method. (2)
2	They don't have to change. There is plenty of basis to say that they should function as they are. If basic skills are learnt at GCSE level then specialisation should be encouraged. (1)	High-level of knowledge should be examined in order to continue our education at a higher level. (3)
3	Three subjects are sufficient. (1)	In the end, they won't change unless our society, which sets a greater value on the academic career of an individual than on his real ability, changes. (3)

*In the case of English findings, "examinations" include GCSEs and A-levels.

** The researcher summarised comments. The number in parenthesis is the number of students who note similar opinions.

Even though opinions against a change in examinations are not found a lot, the above figure shows those opinions, especially of English students, which are quite practical and logical. In the case of English research, there are some students who believe specialised knowledge is helpful for both academic achievements at university and acquiring specialised jobs. In fact, it may be an advantage of specialised knowledge and can be a principle of lifelong learning as vocational training.

In the case of Japanese findings, there are also a few Japanese teachers who regard the current examinations as fair. Nevertheless, it should be noted that it is a difficult issue to define in what sense the examinations are fair. In terms of looking at each pupil's ability, a method of A-levels may be fair, while the Japanese examinations may be fair in terms of looking solely at pupils' academic achievement which often depends on their good memory.

Another interesting opinion in this category is that there are a few Japanese students who say examinations will not change unless their society changes. This opinion, which seems rather pessimistic, may indicate an enormous social pressure for Japanese pupils to succeed at the examinations.

Lastly, there are other opinions which are found frequently in each country. In the case of English research, there are many opinions which are concerned with the global age. First, some English students mention that a more broad range of subjects addressing more international issues should be included in examinations. In addition, both English students and teachers mention that GCSEs and A-levels should be a common test which can be recognised internationally. Accordingly, there are many opinions which suggest a change of English qualifications towards the International Baccalaureate.

Meanwhile, there are many opinions which suggest changes at university level in the Japanese research. Both Japanese teachers and students insist on a change in Japanese universities, which are sometimes blamed for not being highly academic nor up-to-date enough.

A Summary of Findings and Further Discussion

First, opinions in this section are very different in each country and difficult to compare because of differences in examination systems. Nevertheless, these

opinions show advantages and disadvantages of examinations in each country. In the case of England, specialised knowledge which is required for A-levels is very practical and helpful in a sense, while there are many opinions which insist broader knowledge should be examined. In addition, standardisation of examinations seems a very serious issue both for teachers and students. The unification of the examination board will be a possible issue for the examinations' system in England.

Meanwhile, the current written examinations in Japan, which heavily depend on pupils' good memory, are criticised, even though it is fair in terms of looking at academic achievement by applying the same test to everyone. There are a few Japanese students who criticise their own society, which is academically hierarchical. In addition, changes in Japanese universities seem a rather urgent issue for Japanese education. In other words, Japanese opinions seem to indicate that if university changes, examinations and social attitude towards examinations will change, and eventually secondary school education, which is regarded as a preparation for the examinations, will change.

However, it should be noted that those issues are currently considered carefully in each country. In fact, A-levels in England are changing to assess the broader knowledge of each pupil. In Japan, the University Council announced a report on educational reform in universities in "a vision for universities in the 21st century" (Monbusho, 1998c). Although it is not a main argument here, it will be interesting to note that there is a discussion in Japan which suggests an introduction of a qualification system at the end of secondary school, which is equivalent to GCSEs in England (Nihon Keizai Shinbun, 2000d).

In any case, examinations, which include continuous assessments, may be popular in the global age.

Before moving to the next section, another point should be mentioned here. In the English research, as already described in chapter six, there are many opinions which

provide various ideas for further discussion for education for the global age. For instance, there are many English respondents who consider qualifications in the global age should be internationally recognisable like the International Baccalaureate, and others mention that more international issues should be included in examinations.

On the other hand, there are few opinions which mention examination for the global age from Japanese respondents. Although opinions from Japanese respondents reflect their society very well, those opinions tend to sorely criticise the current system and rarely provide further discussion for education for the global age.

In fact, this tendency can also be found in findings for another key research question described in the following section.

SECTION 6. VIEWS ABOUT HOW SECONDARY SCHOOLS SHOULD CHANGE IN THE GLOBAL AGE

The final key question is about views about how secondary schools should change. The respondents' opinions for this question are divided into eight categories as follows:

1. Curriculum content
2. Aims of education
3. Assessment methods
4. Teaching methods
5. Teachers
6. Parents
7. Schools
8. Others

Among various opinions in the above categories, there are some similar opinions

which can be found from the English and Japanese students and teachers. Those opinions are especially found in category three which is about assessment methods, and category five which is about teachers.

First, in opinions for assessment methods, there are many English and Japanese students who insist on more emphasis on continuous assessment methods. In the case of Japanese students, there are also some students who insist on more emphasis on presentation and discussion instead of written examinations. This finding can also be found in question 12 of the questionnaire, described in section 3.4.

Secondly, there is a similarity in opinions about teachers. In the case of Japanese research, there are many students who doubt if teachers have appropriate abilities for their profession, and also criticise a lack of communication between teachers and pupils. Meanwhile, there are many English teachers who claim excessive pressure from the government, parents and pupils and they feel their status is not high enough for such demanding work. Those opinions of both Japanese students and English teachers indicate that there are great expectations of teachers in both countries.

In addition to the above opinions which are found from the Japanese and English respondents, opinions about teaching method in category four are also relatively similar in both countries. In the case of English respondents, many opinions insist on greater use of computer-based teaching, including using the Internet. For instance, one of the English teachers has already implemented videoconferencing. In the case of Japanese respondents, there are some students and teachers who insist on more effective teaching, which uses visual aids such as TV, video, OHP etc. In both cases, using high technology seems to be a key issue in teaching methods in the global age. Nevertheless, it should be noted that Japanese respondents are not as positive about using ICT (especially computers) as English respondents (see chapter 5).

In fact, a slight difference in attitude towards using ICT between Japanese and English respondents can also be found in their views about curriculum content in

category one. For instance, there are 20 English students who note ICT should be emphasized in curriculum content. Meanwhile, there are six Japanese students who note, for example, “ICT is fine, but more emphasis on developing pupils’ thinking skills”, although there are 11 Japanese students who insist on more ICT. These findings may show there is a mixed feeling about using ICT among the Japanese respondents.

As for opinions about aims of education, they are slightly different in each country.

The following figure shows frequently observed opinions in this category.

Figure 186. Opinions about aims of education

	UK	JAPAN
1	More citizenship education. (9)*	More education which values human relationships. (13)
2	Pupils should aware their futures will be far more global than before, so they need greater knowledge and understanding of other cultures. (8)	Balance between individualism and harmony is very important. (11)
3	Pupils should be made more globally aware. (4) Pupils need to be more aware of the world around them. This is the way to avoid racism. (2)	Not a preparation for entrance examinations, but education should be able to develop individual ability. (8) Education which encourage pupils to have a broader views of the world. (8)

* The researcher summarised comments. The number in parenthesis is the number of students who note similar opinions.

Opinions in the above figure show that some of the English answers tend to consider the global age more practically, while Japanese students concentrate on more value-based education and educational issues in their own country.

Nevertheless, it should be noted that both English and Japanese respondents find that education which encourages pupils to be aware of the world should be emphasized. In addition, humanistic education and personal social education are frequently emphasized not only by the Japanese respondents but also by some of the English students. In fact, in category one which is about curriculum content, 11 English

students note life skills including personal social education should be emphasized, and it is the second most popular opinion in this category.

Apart from that, opinions about parents in category seven are partly similar between the two countries. In the case of English students, there are a few students who insist on more understanding of parents to prepare for the global age, while Japanese respondents tend to point out a lack of parental awareness of home training and a lack of communication between school and parents. Opinions from the two countries show that more parental involvement in education may help school education to succeed. However, it should be noted that parental involvement in school education should be considered carefully, since the background can be very different in each family and may cause confusion to a degree in certain issues, such as religious education. Nevertheless, the findings indicate that more communication between school and home training should be encouraged in Japan, and more understanding of education preparing for the global age should be encouraged in England.

Meanwhile, opinions about schools in category six seem different between the two countries. There are English teachers who criticise the bureaucratic system in school management and excessive government interference in education. Meanwhile, there are many Japanese students who point out that the size of the class should be reduced.

Lastly, other opinions about changes in secondary school for the global age are basically divided into two types. First, it is about criticism of the current secondary school. Second, it is about more visions and ideas about what secondary education should do to better prepare pupils for the global age. Interestingly, most opinions in the latter part are made by English respondents.

First, the following figure shows some opinions about criticism of the current secondary schools.

Figure 187. Opinions about criticism of the current secondary schools

	UK	JAPAN
1	Excessive pressures from society and the government to both teachers and pupils. (T)*	Non-flexible system. If one student drops out once, there are few alternatives for that person to return to education. (T, S)
2	The notion of social class which still strongly affects education. Equal value to “vocational” course and “academic” course. (T, S)	The society and education do not change at all, after all discussions of change. (S)

* The researcher summarised comments. The abbreviation in parenthesis: T means opinions found by teachers, and S means opinions found by students.

Critical opinions in the above figure reflect educational issues, which are deeply related to the social background of each country. In the case of English research, Many teachers complain about their working conditions that are very hard and that they receive pressures from society and the government. This type of opinion is also mentioned by the English students shown in section 4.1. Moreover, there are a few teachers and students who criticise social class which affects school education and its course.

Meanwhile, there are a few Japanese students and teachers who criticise the rigid and non-flexible system of school education. In addition, there are some Japanese students who state their society and education won't change however they try to improve it.

Opinions about social class from the English respondents and opinions about society by the Japanese respondents are very striking, and show how social issues influence education in both countries.

Second, there are opinions which provide ideas about education to better prepare pupils for the global age. Although there are a few Japanese teachers who mention this type of opinion, most ideas to change secondary education for the global age are

provided by English respondents. One English student mentions changes in RE to introduce other religions to learn about. One teacher provides his unique opinion of management of the school day in the global age, while others mention education as lifelong learning, as cultural understanding. There is also a student who notes a practical way to introduce cultural understanding and world wide issues (see chapter 5). Those opinions are very interesting and sometimes very practical, and provide more visions of education for the global age.

A Summary of Findings and Further Discussion

There are some similarities and differences in views about how secondary school should change in the global age between the English and Japanese respondents. Opinions about assessment methods and teachers are basically similar. Both English and Japanese respondents insist on more emphasis on continuous assessment methods, and their opinions about teachers indicate that their task is very hard but significant in both countries. The latter opinion may suggest more involvement of teachers to consider educational policy in the global age. Moreover, those opinions could be universal, and are key issues in education for the global age.

Opinions about teaching methods which use high technology and more awareness of the world in the aims of education, opinions about the use of computers are also basically similar in the two countries. In addition, opinions about parents indicate that parental involvement cannot be ignored in educational issues. It should also be noted that emphasis on humanistic education is also mentioned by students in the two countries. Although these opinions are not completely the same between the two countries, they could be universally significant topics in consideration of education for the global age in each country.

Meanwhile, other opinions are slightly different and reflect the social and

educational differences of the two countries. For instance, opinions about schools are very different in the two countries. In addition, opinions about criticisms of current education are also very different and reflect the social issues of each country. This suggests that the impact of social and cultural, and even political context on education is enormous and there are some issues which should be considered in accordance with each country's situation.

Lastly, another interesting finding is that more English than Japanese respondents provide their unique visions about education for the global age, in the same way as findings in the previous section. This is only an assumption but this finding may reflect the fact that Japanese education does not value each pupil's creativity, while English culture which has produced many inventors including during the Industrial Revolution in the 18th and 19th centuries and English society respects individualism.

CHAPTER 8 CONCLUSION

There are a few significant points which should be clarified in this last concluding chapter. These points are based on the findings of the research, although some further discussion and implications will be included which are based on the researcher's own ideas.

Before looking at the summary of findings, the following issues should be described here briefly. The topic of this study is about education for the global age and the aim of this study was to explore the views about education for the global age held by students, student teachers and school teachers in Japan and England.

In order to meet the needs of pupils who are going to live in a "global age", this study focuses on the four aspects of education: the aims of education; the content of the school curriculum; teaching methods and assessment methods.

In this study, the global age refers to the present time when there are many emerging events and situations which people have to face globally: people of different countries come into contact with each other much more than in the past; many issues such as environment, human rights, conflicts between and within countries, are discussed at an international level; the Internet has speeded up access to information produced in other countries; the ethnic mix of people living in many countries has increased; more people than ever before study and work abroad.

There are a few main features in this study. First of all, the idea of education for the global age in this study is based on a UNESCO report (Delors, 1996). The report argues that there are four pillars of education: learning to be, learning to do, learning to know and learning to live together. Based on these four pillars, the concept of education for the global age in this study explored such areas as international understanding education, personal and social education, and information technology education.

Second, it is a comparative study of English and Japanese education for the global age. It is worth comparing these two countries especially when educational reforms of each country seem to be moving in different directions, in terms of centralisation.

Third, this research focuses on secondary education. In general, some projects related to education for the global age can be found primary schools, secondary schools and universities. It appears that the most 'effective' time for children to undertake education for the global age is in secondary education, as this is the time that the curriculum becomes very broad and deals with more sophisticated concepts and ideas, particular involving abstract thinking. It will be also important to note that university students who have helped with this research are asked about their views about secondary education based on their own experiences in secondary school.

Fourth, another feature of this study is the source of data. There are three different groups of respondents. University students who are more mature and can be more objective than pupils at secondary school level. Student teachers who will be teachers in 'the global age', and will be key elements in implementing education for the global age become the target of the data. A comparison between these two groups is also one of the features of the research. It enables us to find out different students' attitudes towards education. Moreover, teachers in secondary schools may be able to provide critical and practical views of education for the global age. By selecting these different groups as the source of data, this study enables us to explore a diversity of views about education for the global age from different angles.

The study explored six key research questions. It involved questionnaires to 400 students in university and interviews with 44 teachers at secondary school in Japan and England. In accordance with question types, both quantitative and qualitative analysis methods were used.

In the following section one, a summary of findings in accordance with each key research question is described. Moreover, implications for further study will be

described in section two.

SECTION 1. SUMMARY OF FINDINGS

1. 1. What views do university students and student teachers have about the education they received at secondary school?

Here significant findings for each key question are described briefly. First, the key research question: “views about students’ received education at secondary school”.

As previously analysed in chapters 5, 6 and 7, both Japanese and English students are basically satisfied with their received education at secondary school in both academic and non-academic aspects.

In terms of comparison between England and Japan, there are two types of findings: findings which reflect the current educational issues in each country, and findings which are similar in the two countries.

First, some findings which reflect the current educational issues in each country should be described. For example, the subjects which many English students feel least useful in their present life were Science and Languages, while Japanese students selected Science and Mathematics.

In case of England, the above finding matches a current tendency of English students to have negative attitudes to Science, as one of the teachers who contributed to this study mentions. Moreover, the above finding also indicates English students’ lack of interest in learning foreign languages. One possible reason for this is that English is generally recognised as an international language throughout the world, and English students basically do not need to learn foreign languages to communicate with other people in other countries. Nevertheless, learning about foreign languages is profoundly related to learning about other cultures and will be essential to

understand other people. The finding may indicate that foreign language education will be a key issue in education for the global age in England.

Meanwhile, Science and Mathematics are often regarded as notorious representatives of competitive entrance examinations to university, the so-called 'examination hell' in Japan. Findings from Japanese students may indicate that Science and Mathematics are treated as only tools to enter prestigious universities. It may reflect an academically hierarchical society in Japan, which values academic achievements rather than the personal and social development of each pupil.

Second, a similar finding from the two countries should be described here. What both Japanese and English students are satisfied with is relationships with school friends and teachers. According to the respondents' opinions of the two countries, relationships with school friends provide personal and social development for each pupil, and the relationship with teachers seems to be a key issue for pupils' academic achievements. As additional information, in interviews there are also some teachers who believe the most important issue in secondary school education is to develop a good relationship between teachers and pupils. This type of opinion was found among both English and Japanese interviewees, especially those who were well-experienced teachers.

1.2. What views do university students, student teachers and teachers have about education for the global age at secondary school?

The key research question regarding "views about education for the global age" is examined through the four aspects of education: the aims of education; curriculum content; teaching methods; and assessment methods. Both Japanese and English students basically answered that educational issues which are listed in the questions should be emphasised more than now in the global age.

In the same way as previous findings for the first key research question, there are also some findings that reflect the social and cultural background in each country. For instance, most English students feel the aim ‘to help pupils to develop an understanding of different communities in their own country’ should be emphasised more than now, and this outcome seems to reflect the multicultural society of England. On the other hand, most Japanese students answer that the aim ‘to help pupils to exercise greater autonomy’ should be emphasised more than now, and this outcome may indicate the current Japanese educational movement which tries to evaluate social and personal development more.

Meanwhile, there are also many similar opinions found in the two countries. For instance, many Japanese and English students place more emphasis on ‘world wide issues’ in the curriculum, broader rather than specialised knowledge education, and continuous assessment methods, as well as keeping written examinations the same as now.

Apart from the questionnaire, teachers’ opinions from the two countries in interviews are basically similar to the students’ opinions, although more English than Japanese teachers provide various opinions and try to suggest possible ways to improve current difficulties.

1. 3. What views do university students, student teachers and teachers have about problems of implementing education for the global age at secondary school?

Findings for the key research question regarding “views about problems in implementing education for the global age” seem to provide very practical and helpful suggestions from the respondents. Those opinions are divided into the five categories: (1) problems for teachers; (2) problems for school; (3) problems for

pupils; (4) problems in the four aspects of education; (5) problems in the social and cultural context.

First, opinions in categories (1) to (4) are basically similar between Japanese and English respondents. For instance, both Japanese and English respondents suggest that there should be more in-service education for teachers, ensuring a sufficient number of teachers. In addition, findings indicate there will be difficulty in time-tabling, funding problems and changing people's attitudes. In addition, there are some respondents who feel individualised programmes are difficult in practice, and suggest the need of standardisation of continuous assessment methods. Moreover, some English students are very concerned with equal opportunities for IT and some Japanese students feel it will be difficult to maintain high academic standard. Nevertheless, students from the both countries agree that changes in education preparing for the global age will cause confusion for pupils. The above problems mentioned by both English and Japanese respondents might be universal ones, and may be the issues from which many countries can learn from each other.

On the contrary, opinions for category (5) indicate the cultural, social and educational differences of the two countries. For instance, Japanese findings indicate the enormous influence of competitive entrance examinations to universities for secondary school education. This may be linked with the Japanese social background, which tends to value one's academic rather than personal abilities. In addition, Japanese respondents also strongly suggest that the existence of 'conservatives' who are reluctant to update their education system, may be one of the indications that Japanese society is reluctant to accept new ideas.

Meanwhile, English students suggest that English people have rather insular world views, in spite of their multicultural society. Some English teachers also mention that the most difficult problem is to change people's attitudes and this cannot be solely done by school education. In addition, both English teachers and students criticise

political interference which often causes confusion. This phenomenon makes a very interesting contrast to Japanese findings, which insist that Japanese society and education are firm and stable.

1.4. What views do university students, student teachers and teachers have about the current examination system?

The findings for the key question regarding “views about the current examination system” are difficult to compare between different countries. Nevertheless, this study considers it is essential to look at the examination systems since these occupy a large part of secondary education.

The findings show advantages and disadvantages of the examination system which each country has. For instance, English respondents suggest there needs to be a standardisation of examination boards, and many students believe A-levels in England should be used to examine broader knowledge of pupils, although it is helpful and practical for students’ current courses in the university.

Meanwhile, Japanese respondents criticise the current examination which heavily depends on pupils’ good memory, although they believe it is a fair system in terms of looking at academic achievements by applying the same test to everyone. In addition, Japanese students’ opinions involves criticism of their own society which is academically hierarchical, and the need for changes in higher education are insisted on.

Nevertheless, the most significant finding for this key research question would be that there are many respondents who believe the examination system of the two countries should use continuous assessment in the global age.

1.5. What views do university students, student teachers and teachers have about how secondary schools should change in the global age?

Lastly, the findings for the key question regarding “views about how secondary schools change in the global age” range widely and the respondents provide various ideas. Similar opinions for this question between the two countries are generalised such as ‘more emphasis on continuous assessment methods’; ‘more ICT’; ‘more awareness of the world’; ‘more caution on parental involvement’ and ‘more personal and social education’.

In the meantime, there are also some different opinions between the two countries in views about how secondary schools should change in the global age. Those opinions are basically about criticism of the current secondary schools. For instance, in opinions about criticism of the current secondary schools, many English respondents point out the excessive pressures from society and the government to both teachers and pupils, and their social class which strongly affects education. Meanwhile, Japanese findings indicate that the non-flexible system of school education should be improved, the size of each class should be smaller, and Japanese stable society which respects traditions and is reluctant to develop and improve is one of the problems of education in Japan.

1.6. What are similarities and differences in views held about education for the global age in England and Japan?

The above findings indicate that there are some similar opinions which can be found in England and Japan, and some different opinions which reflect the social cultural differences between each country.

In the meantime, it will be interesting to note that more English than Japanese

respondents provide their unique visions about education for the global age through the key research questions. As already mentioned in the chapter 7, this tendency may reflect the Japanese society and education which do not value each person's creativity and the English culture which has developed many inventors, and English society which respects individualism.

1. 7. Summary

The above findings indicate that there are some similar opinions which can be found in England and Japan, and some different opinions which reflect the social cultural differences between each country. In consideration of education for the global age, it may be possible to say that the similar findings, which can be found in the two countries, will be universal and fundamental issues of education in every country in the global age.

Moreover, it will be also important to note that these similar findings insist on emphasising mainly two objectives of education. One is about fundamental education which may be unchangeable for decades in every country, such as making a good relationship with people and personal and social education. Learning to develop good relationships with people lies on the fundamental of Delors' four pillars of education: "learning to know", "learning to be", "learning to do" and "learning to live together". It could motivate pupils to pursue their academic achievements, it may help them to learn how to live as a member of a society, it can be a key skill to success in a work place, and it may help to understand differences and work together with people in other countries. Learning to have a good relationship with people may depend on the basis of pedagogical arguments whenever and wherever we live.

The other is about more up-to-date education which should be introduced and

improved according to changes in the world, such as information communication technology skills and more emphasis on world-wide issues. This type of education applies to Delors' "learning to know", "learning to live together". Moreover, some respondents see that the content of education may need to shift from the knowledge-based to thinking skills-based education, since what is required in the global age may not be the vast amount of knowledge but skills to fully utilise knowledge in various situations. This type of education applies to Delors' "learning to do". Accordingly, many of the respondents of the two countries insist on emphasising continuous assessments rather than one test which examines good memory at the end of the course. It also should be noted that the above up-to-date education mentioned by the English and Japanese respondents may apply especially to education in leading countries, since its level may be different from those countries which are under-developed.

Before looking at different findings from the two countries, it will be important to note that there are some practical suggestions mentioned by the respondents of the two countries such as funding problems, in-service education for teachers and increasing the number of teachers. Nevertheless, it is very important and pleasing to note that a few teachers have mentioned possible solutions for this problem such as sponsorships from business links. It will be worth mentioning that co-operation with business and higher education has already begun in England, at Cambridge University, for example (Nihon Keizai Shinbun, 2000a). These practical issues should also be carefully considered in any country in order to prepare pupils for the global age.

Meanwhile, it should be noted that there are also some different findings which reflect social cultural and educational differences. Those issues, such as the Japanese academically hierarchical society and political interference to education in England, should be considered independently in each country. It also suggests that there

should be some educational issues which cannot be universally considered because of the different cultures and societies. Although the world will be shrinking in the global age as many teacher respondents consider, social and cultural influences on education are enormous and should not be neglected to improve education in each country. In this sense, some of the issues of education for the global age should be considered carefully in accordance with the social and cultural situation of every country.

For further discussion, the above findings which are mentioned by the respondents of the two countries should be carefully considered and introduced, since some curriculum content may need to be abandoned and combined with others to a degree. Moreover, the above findings indicate that the discussion of education for the global age should not proceed rapidly and radically, but needs to find a rightly balanced way in which both progressives and traditionalists can compromise, since it involves not only educational but also other issues. Literally, it will take time, as some students have mentioned.

SECTION 2: IMPLICATIONS FOR FURTHER STUDY

In this last section, some implications for further study should be noted. In this study, a comparative study about education for the global age between England and Japan is conducted. As already mentioned in chapter 3, studies related to education for the global age are conducted in many countries, but there are few which try to compare findings.

The aim of a comparative study may not be to find out one educational theory which can be universally agreed but to learn about advantages and disadvantages from each other. By learning about what other countries try to implement, it will be possible to improve education in each country. If this type of research can be conducted in other

countries, we may be able to reach findings which are similar in any countries, and also be able to find different ideas in each country. As continuing this type of research, we may truly be able to overcome misunderstanding of each other and may find possible ways to work together in the global age. Conducting a comparative research, especially about education for the global age, is already a part of Delors' four pillars of education: "learning to know", "learning to be", "learning to do" and "learning to live together".

Although this study focuses on England and Japan, in further study it will be possible to compare many other countries. Nevertheless, it should be important to be careful when comparing countries between those which are highly developed and those which are under-developed.

SECTION 3: IMPLICATIONS FOR EDUCATIONAL REFORM

In this study, the research has been conducted in the two specific countries: England and Japan. Accordingly, it is difficult to say that the findings for this study which are summarised in the above can be applied to other countries, especially those which are under-developed. As already mentioned, educational issues are profoundly related to the social and cultural background of each country. It is also impossible to ignore the social, political and economic situation of the country in consideration of educational issues. Even though it may be possible to admit we are already in the global age in terms of economy and technology, the world may not be shrinking enough to apply education for the global age, as discussed in this study, to all countries.

As already noted in chapter 2, world-wide issues such as environment issues, wars and poverty are happening in the world. Those issues should not be ignored in the

interest of survival of human beings. For survival of human beings, discussions based on sustainable development are inevitable, and understanding of differences is a key issue for the success of this type of international discussion.

For European countries which try hard to unite for their economic growth, understanding other countries' different policies including education may be inevitable. For Asian countries, more understanding of each other and more mutual help are inevitable in the global age. In the world, work of international organisations is under progress: for instance, in international congresses such as the Kyoto Treaty on climate change, many countries try hard to work together. This type of congress can not be implemented without understanding of the social, economic, and political situation of each country.

Accordingly, the discussion of education for the global age as examined in this study will be essential, especially in leading countries. In this sense, it may possible to say that this study may contribute to educational studies in other first world countries to a degree.

Meanwhile, although many educational issues should be considered in accordance with the situation of each country, some educational issues which the respondents of the two countries insist on emphasising such as personal social education are not new but have been very fundamental issue for decades. Although further study needs to be conducted, these types of educational issues might be important in any countries at any time.

Lastly, it should be noted here some current educational movements in England and Japan which try to prepare pupils for the global age. For instance, in 2002 Citizenship education will become compulsory education in secondary schools in England, which received little relative attention in schools when this study began in 1997. In addition, A-levels in England are changing to assess the broader knowledge of each pupil, as many English respondents preferred. In fact, education in England

is evolving, moving towards the global age, as one of the English interviewees cites. Meanwhile, the Japanese government that reflects on its past highly competitive education system now tries to value more personal and social education, and reforms in higher education are also under progress. Although Japanese society is reluctant to change as mentioned in the previous chapters, it may be no longer the case. Especially after Mr Koizumi, who declares “revolution over sanctuary” (which means he will implement revolutions without exception, including even untouchable and sensitive issues in politics, economy, and education) became the Prime Minister of Japan in early 2001, Japanese people expect that many issues including education may improve. The researcher never expected this remarkable political movement when she started this study, and she sees that this movement may indicate Japan has finally started to consider what she should do in the global age. The researcher personally hope this study will contribute to the success of these two countries, which tries to improve their education to prepare pupils for the global age. In the future, more comparative studies about education for the global age in many countries should be conducted to improve the world and for the existence of human beings.

**APPENDIX 1: The pilot study to PGCE students undertaken in June 1998
at the University of York**

(a pilot study)

EDUCATION FOR THE GLOBAL AGE

Questionnaire

My name is Yuko Kato. I am studying at the Department of Educational Studies of the University of York. As we approach the next century, many writers have argued that the aims of education, the content of the school curriculum and the teaching methods used in schools, all need to change in order to meet the needs of pupils who increasingly are going to live in a “Global Age”.

By “Global Age”, I mean that nowadays people of different countries come in to contact with each other much more than in the past; many issues such as the environment, human rights, conflicts between and within countries, are discussed at an international level; the Internet has speeded up access to information produced in other countries; the ethnic mix of people living in many countries has increased; more people than ever before study and work abroad.

I am interested in finding out your views on whether living in a global age should lead to changes in the secondary school curriculum. I would, therefore, highly appreciate it if you could answer the following questions.

All my questions below relate to **the secondary schools in England**.

1. The aims of education

How much emphasis do you feel should be given to each of the following aims for the secondary school curriculum in the global age?

1. Much more emphasis than now
2. A bit more emphasis than now
3. Same as now
4. A bit less emphasis than now
5. Much less emphasis than now

Aims	1	2	3	4	5
To help pupils acquire the skills needed to get the job they want to in adult age (Learning to do)					
To help pupils to acquire a broad general knowledge (Learning to know)					
To help pupils to develop an understanding of other countries and cultures (Learning to live together)					
To help pupils to develop an understanding of different communities in their own country (Learning to live together)					
To help pupils develop a sense of being a citizen of the world (Learning to live together)					
To help pupils to learn how to deal with problems situations (Learning to be)					
To help pupils to exercise greater autonomy (Learning to be)					

2. The content of the secondary school curriculum

How much emphasis do you feel should be given to the following areas of the school curriculum?

1. Much more emphasis than now
2. A bit more emphasis than now
3. Same as now
4. A bit less emphasis than now
5. Much less emphasis than now

Content	1	2	3	4	5
Basic skills (literacy, numeracy)					
Foreign languages					
Learning about the culture of people in other countries					
Learning about different communities in their own country					
Developing a sense of responsibility towards people living in other countries					
Developing a sense of individual empowerment					
Visiting and living in other countries					
World issues (e.g. environment, human rights, war and peace)					
Studying world history and politics					
Information and communications technology skills					

3. Teaching methods

How much emphasis do you feel should be given to the use of the following teaching methods?

1. Much more emphasis than now
2. A bit more emphasis than now
3. Same as now
4. A bit less emphasis than now
5. Much less emphasis than now

Methods	1	2	3	4	5
Collaborative activities where small groups of pupils have to work together as a team					
Individualized programmes of work where each pupil can work alone at his/her own pace					
Whole class teaching					
Computer assisted learning packages					
Activities which take place outside school (e.g. work experience, exchange visits, outdoor education)					

4. Finally, in what ways do you feel the secondary school curriculum should change?

Thank you very much for your time and kind consideration.

APPENDIX 2: The questionnaire to PGCE students undertaken in May 1999 at the University of York

EDUCATION FOR THE GLOBAL AGE

Questionnaire

My name is Yuko Kato. I am studying at the Department of Educational Studies of the University of York. As we approach the next century, many writers have argued that the aims of education, the content of the school curriculum and the teaching methods used in schools, all need to change in order to meet the needs of pupils who increasingly are going to live in a “Global Age”.

By “Global Age”, I mean that nowadays people of different countries come in to contact with each other much more than in the past; many issues such as the environment, human rights, conflicts between and within countries, are discussed at an international level; the Internet has speeded up access to information produced in other countries; the ethnic mix of people living in many countries has increased; more people than ever before study and work abroad.

I am interested in finding out your views on whether living in a global age should lead to changes in the secondary school curriculum. I would, therefore, highly appreciate it if you could answer the following questions.

All my questions below relate to **the secondary schools in England.**

Background Information about Yourself

Your curriculum area:

- English
- History
- Mathematics
- Modern Languages
- Science

Sex

- Male
- Female

Age

- 18-20 years
- 21-25 years
- 26-30 years
- 31-35 years
- 36-40 years
- 40+

In which country did you attend secondary school?

- England
- Wales
- Scotland
- Northern Ireland
- Eire
- France
- Germany
- Other (please specify):-----

1. How satisfied are you with your education in secondary school?

- Very satisfied
- A bit satisfied
- Neither satisfied nor dissatisfied
- A bit dissatisfied
- Very dissatisfied

2. How satisfied were you, in general, with the following issues when you were in secondary school?

- 1 = Very satisfied
- 2 = A bit satisfied
- 3 = Neither satisfied nor dissatisfied
- 4 = A bit dissatisfied
- 5 = Very dissatisfied

Issues	1	2	3	4	5
The content of school subjects					
Teaching methods					
Pace of learning in each subject					
Methods of assessment					
Relationships with school friends					
Social activities (clubs, societies)					
School events (school festivals)					

3. How useful is what you have studied and experienced as a pupil in secondary school, in general, for your present life?

- Very useful
- A bit useful
- Neither useful nor useless
- A bit useless
- Very useless

4. Which subjects and experiences were the most useful for your present life and why?

5. Which subjects and experiences are the most useless for your present life and why?

6. How much emphasis do you feel should be given to each of the following aims for the secondary school curriculum in the global age?

1 = Much more emphasis than now

2 = A bit more emphasis than now

3 = Same as now

4 = A bit less emphasis than now

5 = Much less emphasis than now

Aims	1	2	3	4	5
To help pupils acquire the skills needed to get the job they want to in adult life					
To help pupils to acquire a broad general knowledge					
To help pupils to develop an understanding of other countries and cultures					
To help pupils to develop an understanding of different communities in their own country					
To help pupils develop a sense of being a citizen of the world					
To help pupils to learn how to deal with problems situations					
To help pupils to exercise greater autonomy					

7. Do you feel problems will occur, if changes in the aims of education are to be implemented?

Yes

No

If your answer is “yes”, please outline what kinds of problems they are.

8. How much emphasis do you feel should be given to the following areas of the school curriculum in the global age?

1 = Much more emphasis than now

2 = A bit more emphasis than now

3 = Same as now

4 = A bit less emphasis than now

5 = Much less emphasis than now

Content	1	2	3	4	5
Basic skills (literacy, numeracy)					
High-level skills/knowledge					
Foreign languages					
Learning about the culture of people in other countries					
Learning about different communities in their own country					
Developing a sense of responsibility towards people living in other countries					
Developing a sense of individual empowerment					
Visiting and living in other countries					
World issues (e.g. environment, human rights, war and peace)					
Information and communications technology skills					
Activities which take place outside school					

9. Do you feel problems will occur, if changes in the content of the school curriculum are to be implemented?

Yes

No

If your answer is “yes”, please outline what kinds of problems they are.

10. How much emphasis do you feel should be given to the use of the following teaching methods in the global age?

1 = Much more emphasis than now

2 = A bit more emphasis than now

3 = Same as now

4 = A bit less emphasis than now

5 = Much less emphasis than now

Teaching Methods	1	2	3	4	5
Collaborative activities where small groups of pupils have to work together as a team					
Individualized programmes of work where each pupil can work alone at his/her own pace					
Whole class teaching					
Computer assisted learning packages					
Activities which take place outside school (e.g. work experience, exchange visits, outdoor education)					

11. Do you feel problems will occur, if changes in teaching methods are to be implemented?

Yes

No

If your answer is “yes”, please outline what kinds of problems they are.

12. How much emphasis do you feel should be given to the use of the following assessment methods in the global age?

1 = Much more emphasis than now

2 = A bit more emphasis than now

3 = Same as now

4 = A bit less emphasis than now

5 = Much less emphasis than now

Assessment Methods	1	2	3	4	5
Written examination					
Oral examination					
Presentation in a class					
Thesis/ Research Report					

13. Do you feel problems will occur, if changes in assessment methods are to be implemented?

- Yes
 No

If your answer is “yes”, please outline what kinds of problems they are.

14. Do you think GCSEs should change in the global age?

- Yes
 No

If your answer is “yes”, please outline how.

15. Do you think A-levels should change in the global age?

- Yes
 No

If your answer is “yes”, please outline how.

16. Finally, in what ways do you feel the secondary school curriculum should change in the global age?

Thank you very much for your time and kind consideration.

APPENDIX 3: The questionnaire to undergraduate students undertaken in January to June 2000 at the University of York

EDUCATION FOR THE GLOBAL AGE

Questionnaire

My name is Yuko Kato. I am studying at the Department of Educational Studies of the University of York. As we approach the next century, many writers have argued that the aims of education, the content of the school curriculum and the teaching methods used in schools, all need to change in order to meet the needs of pupils who increasingly are going to live in a “Global Age”.

By “Global Age”, I mean that nowadays people of different countries come in to contact with each other much more than in the past; many issues such as the environment, human rights, conflicts between and within countries, are discussed at an international level; the Internet has speeded up access to information produced in other countries; the ethnic mix of people living in many countries has increased; more people than ever before study and work abroad.

I am interested in finding out your views on whether living in a global age should lead to changes in the secondary school curriculum. I would, therefore, highly appreciate it if you could answer the following questions.

All my questions below relate to **the secondary schools in England**.

Background Information about Yourself

What subject(s) are you studying for your degree?

Sex

- Male
- Female

Age

- 18-20 years
- 21-25 years
- 26-30 years
- 31-35 years
- 36-40 years
- 40+

In which country did you attend secondary school?

- England
- Wales
- Scotland
- Northern Ireland
- Eire
- France
- Germany
- Other (please specify):-----

1. How satisfied are you with your education in secondary school?

- Very satisfied
- A bit satisfied
- Neither satisfied nor dissatisfied
- A bit dissatisfied
- Very dissatisfied

2. How satisfied were you, in general, with the following issues when you were in secondary school?

- 1 = Very satisfied
- 2 = A bit satisfied
- 3 = Neither satisfied nor dissatisfied
- 4 = A bit dissatisfied
- 5 = Very dissatisfied

Issues	1	2	3	4	5
The content of school subjects					
Teaching methods					
Pace of learning in each subject					
Methods of assessment					
Relationships with school friends					
Social activities (clubs, societies)					
School events (school festivals)					

3. How useful is what you have studied and experienced as a pupil in secondary school, in general, for your present life?

- Very useful
- A bit useful
- Neither useful nor useless
- A bit useless
- Very useless

4. Which subjects and experiences were the most useful for your present life and why?

5. Which subjects and experiences are the most useless for your present life and why?

6. How much emphasis do you feel should be given to each of the following aims for the secondary school curriculum in the global age?

1 = Much more emphasis than now

2 = A bit more emphasis than now

3 = Same as now

4 = A bit less emphasis than now

5 = Much less emphasis than now

Aims	1	2	3	4	5
To help pupils acquire the skills needed to get the job they want to in adult life					
To help pupils to acquire a broad general knowledge					
To help pupils to develop an understanding of other countries and cultures					
To help pupils to develop an understanding of different communities in their own country					
To help pupils develop a sense of being a citizen of the world					
To help pupils to learn how to deal with problems situations					
To help pupils to exercise greater autonomy					

7. Do you feel problems will occur, if changes in the aims of education are to be implemented?

Yes

No

If your answer is “yes”, please outline what kinds of problems they are.

8. How much emphasis do you feel should be given to the following areas of the school curriculum in the global age?

1 = Much more emphasis than now

2 = A bit more emphasis than now

3 = Same as now

4 = A bit less emphasis than now

5 = Much less emphasis than now

Content	1	2	3	4	5
Basic skills (literacy, numeracy)					
High-level skills/knowledge					
Foreign languages					
Learning about the culture of people in other countries					
Learning about different communities in their own country					
Developing a sense of responsibility towards people living in other countries					
Developing a sense of individual empowerment					
Visiting and living in other countries					
World issues (e.g. environment, human rights, war and peace)					
Information and communications technology skills					
Activities which take place outside school					

9. Do you feel problems will occur, if changes in the content of the school curriculum are to be implemented?

Yes

No

If your answer is “yes”, please outline what kinds of problems they are.

10. How much emphasis do you feel should be given to the use of the following teaching methods in the global age?

1 = Much more emphasis than now

2 = A bit more emphasis than now

3 = Same as now

4 = A bit less emphasis than now

5 = Much less emphasis than now

Teaching Methods	1	2	3	4	5
Collaborative activities where small groups of pupils have to work together as a team					
Individualized programmes of work where each pupil can work alone at his/her own pace					
Whole class teaching					
Computer assisted learning packages					
Activities which take place outside school (e.g. work experience, exchange visits, outdoor education)					

11. Do you feel problems will occur, if changes in teaching methods are to be implemented?

Yes

No

If your answer is “yes”, please outline what kinds of problems they are.

12. How much emphasis do you feel should be given to the use of the following assessment methods in the global age?

1 = Much more emphasis than now

2 = A bit more emphasis than now

3 = Same as now

4 = A bit less emphasis than now

5 = Much less emphasis than now

Assessment Methods	1	2	3	4	5
Written examination					
Oral examination					
Presentation in a class					
Thesis/ Research Report					
Course work/ Projects					

13. Do you feel problems will occur, if changes in assessment methods are to be implemented?

Yes

No

If your answer is “yes”, please outline what kinds of problems they are.

14. Do you think GCSEs should change in the global age?

Yes

No

If your answer is “yes”, please outline how.

15. Do you think A-levels should change in the global age?

Yes

No

If your answer is “yes”, please outline how.

16. Finally, in what ways do you feel the secondary school curriculum should change in the global age?

Thank you very much for your time and kind consideration.

APPENDIX 4: Interview to English teachers at secondary school undertaken from February to July 2000

<A cover letter>

Dear Sirs

My name is Yuko Kato, a D.Phil. student at the department of Educational Studies in the University of York. My thesis is being supervised by Dr. Kyriacou, and the title is “a comparative study of education for the global age”. I am writing this letter to ask a favour of you.

My research includes interviews directed to a range of teachers in Japan and England. I would like to ask a few questions about “education for the global age” to teachers at secondary schools in York. I would, therefore, very appreciate it if you could permit me to conduct interview with you.

If it is possible, please let me know when the most convenient time for you. Thank you very much for your time and kind consideration. I am looking forward to hearing from you soon.

Yours Faithfully

Yuko Kato

(Followed by address and e-mail address)

Questions

Question 1. What do you imagine is meant by “a global age”?

Question 2. Do you think the aims of education for secondary schools should change to better prepare pupils for the global age? If so, how?

Question 3. Do you think the curriculum content taught in secondary schools should change to better prepare pupils for the global age? If so, how?

Question 4. Do you think the teaching methods in secondary schools should change to better prepare pupils for the global age? If so, how?

Question 5. Do you think the methods of assessment in secondary schools should change to better prepare pupils for the global age? If so, how?

Question 6. Do you think an entrance examination to university should change? If so, how?

Question 7. What kinds of problems do you think will occur, if changes in the above questions are to be implemented?

Question 8. Finally, please let me know if there is anything else which should change in education for secondary schools.

APPENDIX 5: The pilot study to students at Sagami Women's University undertaken in October 1998 in Japan

地球時代へ向けた教育について

アンケート

オリジナル・バージョン

私は、英国のヨーク大学教育学部で博士課程を履修している加藤優子と申します。今回は、研究課程で必要な資料収集の一環として、学生の皆様に是非以下のアンケートにお答えして頂きたく存じます。ご協力をどうぞ宜しくお願いいたします。

21世紀を迎えるにあたり、私たちは「地球時代」へ向かおうとしております。「地球時代」とはここでは、国際経済、環境問題、人権問題、戦争・紛争問題などの、全人類共通の問題の浮上の中、科学技術の改善によってよりスピードアップされてゆく情報社会、多民族で創り上げられる多文化・多言語社会の増加、そしてより多くの人々が国境を越えて就学、就職する時代のことを指します。

このような「地球時代」に備え、国籍を問わず多くの著書では、教育の目的、カリキュラム内容、そして指導教授方法に至るまでの、抜本的な改革が必要であると主張しています。

そして日本においても、2002年度からの中等教育（中学校・高校教育）におけるカリキュラム変更など、教育改革が着々と進められています。しかし一方では、大学受験対策のための中等教育といった認識が根強くあり、改革には多くの困難が伴うと予想されます。

こういった現状の中で、地球時代へ向けた中等教育について、将来を担う学生の皆様の意見をお尋ねすることは、今後の教育改革改善へ向けて大きく貢献することになると信じております。皆様のご協力をお願いいたします。

*質問の前に、以下の事柄についてについて記入して下さい。

学年 _____

学部・学科 _____

1 教育の目的

地球時代の中等教育では、以下のことがどの程度強調されるべきだと思いますか？

1. 特に強調する。
2. 強調する。
3. 変更無し。
4. 削減する。
5. 特に削減する。

目的	1	2	3	4	5
将来、生徒の望む職業に備えた技術を獲得する。					
世界事情、社会事情などのより一般的な知識を付ける。					
他の国々、他の文化について学ぶ。					
日本に在住する外国人の文化について学ぶ。					
地球市民としての意識を高める。					
いじめなどの問題に直面した時にどう対処するかについて学ぶ。					
自主性と自己責任能力を養う。					

2. カリキュラムの内容

以下の内容が中等教育のカリキュラムでどの程度強調されるべきだとお考えですか？

1. 特に強調する。
2. 強調する。
3. 変更無し。
4. 削減する。
5. 特に削減する。

カリキュラムの内容	1	2	3	4	5
各教科の入門的・基礎的な知識					
各教科の高度な知識					
外国語教育					
他文化について学ぶ					
日本在住の外国人の文化について学ぶ					
他文化を尊重する態度を養う					
個人の責任能力等を養うことを含めた「心の教育」					
就学旅行等で外国を訪問する					
世界的な問題について学ぶ（環境問題、人権問題、戦争と平和など）					
地理・世界史					
政治経済					
情報科学教育					
学校外での学習（一日就職体験、地域の伝統についての学習、福祉活動など）					

3. 指導方法

以下のどの指導方法が中等教育で強調されるべきだと思いますか？

1. 特に強調する。
2. 強調する。
3. 変更無し。
4. 削減する。
5. 特に削減する。

方法	1	2	3	4	5
グループワーク					
より個人のペースに合った個人的指導					
従来のクラス単位の指導					
コンピューターを利用した指導					
課外活動などを含めた、体験学習					

4. どのように中等教育が変わってゆくとよいとお考えですか？または、このまま変わらなくてもよい点は何だとお考えですか？自由に意見を述べて下さい。

5. 以上の変更について、どのような問題が伴うとお考えですか？自由に意見を述べて下さい。

6. 中等教育の評価方法の一つとして、大学入学試験が挙げられると思います。もし中等教育に以上の質問内容のような変更がなされた場合、その変更に対応して、大学入試はどのように改善されるとよいとお考えですか？自由に意見を述べて下さい。

ご協力ありがとうございました。

加藤 優子

APPENDIX 6: The questionnaire to students undertaken in April 1999 in Japan

グローバル時代の教育について

アンケート

私は、英国のヨーク大学教育学部大学院にて教育学を履修している加藤優子と申します。今回は、研究課程で必要な資料収集の一環として、学生の皆様に是非以下のアンケートにお答えして頂きたく存じます。ご協力をどうぞ宜しくお願いいたします。

現在は「グローバル時代」（グローバルエイジ）であると考えられます。「グローバル時代」とはここでは、国際経済、環境問題、人権問題、戦争・紛争問題などの、全人類共通の問題が現在よりもさらに浮上する一方で、科学技術の進歩によってよりスピードアップされてゆく情報社会、多民族で構成される多文化・多言語社会が増加し、より多くの人々が国境を越えて就学、就職する時代のことを指します。

このアンケートは、グローバル時代へ向けた中学校・高校教育について、将来を担う学生の皆様の意見を伺うことを目的としています。皆様のご協力をお願いいたします。

*質問の前に、以下の事柄について記入して下さい。

学年 _____

学部・学科 _____

男 女 (どちらかに○を付けて下さい。)

あなたの中学校・高校での教育について

1. あなたの受けた中学校・高校教育に、総じてどの程度満足していますか？以下の中から当てはまる番号に○を付けて下さい。

1. とても満足している。
2. 少し満足している。
3. どちらでもない。
4. 少し不満がある。
5. とても不満がある。

2. あなたが中学・高校生だった頃、以下の事柄に大まかに言ってどの程度満足していましたか？当てはまる番号に○を付けて下さい。

1. とても満足している。
2. 少し満足している。
3. どちらでもない。
4. 少し不満がある。
5. とても不満がある。

- | | | | | | |
|--------------------|---|---|---|---|---|
| ● 各教科の内容 | 1 | 2 | 3 | 4 | 5 |
| ● 各教科の教授方法 | 1 | 2 | 3 | 4 | 5 |
| ● 各教科の進度（授業のペース） | 1 | 2 | 3 | 4 | 5 |
| ● 各教科の評価の方法 | 1 | 2 | 3 | 4 | 5 |
| ● 友人関係 | 1 | 2 | 3 | 4 | 5 |
| ● 部活動 | 1 | 2 | 3 | 4 | 5 |
| ● 体育祭、学園祭などの各種学校行事 | 1 | 2 | 3 | 4 | 5 |

3. あなたの中学・高校で学習した事柄が、今現在の生活にどの程度役に立っていると思いますか？以下の中から当てはまる番号に○を付けて下さい。

1. とても役立つ。
2. 少し役立つ。
3. どちらでもない。
4. あまり役立たない。
5. 全く役立たない。

4. 中学・高校で学習したうちの、どの教科が今の生活に最も役立っていると思いますか？教科名と、その理由を挙げて下さい。

教科名

(理由)

5. 中学・高校で学習したうちの、どの教科が今の生活に最も役立っていないと思いますか？教科名と、その理由を挙げて下さい。

教科名

(理由)

グローバル時代の教育について

6. 教育の目的

グローバル時代の中学校・高校教育では、以下のことが現在と比べてどの程度強調されるべきだと思いますか？次の5つの中から選んで、当てはまる番号に○を付けて下さい。

1. 特に強調する。
2. 強調する。
3. 変更無し。
4. 削減する。
5. 特に削減する。

- 将来、生徒の望む職業に備えた技術を獲得する。 1 2 3 4 5
- 国際情勢、社会情勢などの、より
一般的な知識を付ける。 1 2 3 4 5
- 他の国々、他の文化について学ぶ。 1 2 3 4 5
- 日本に在住する外国人の文化について学ぶ。 1 2 3 4 5
- 地球市民としての意識を高める。 1 2 3 4 5
- 学業不振や生活面での問題など、様々な問題に直面した時の精神的な強さを身につける。 1 2 3 4 5
- 自主性と自己責任能力を養う。 1 2 3 4 5

7. もし以上のような教育目的の変更が実施された場合、実施する上での問題は生じると
思いますか？

思う

思わない

- ・「思う」と答えた人は、どのような問題が生じるかを書いて下さい。

8. カリキュラムの内容

グローバル時代の中学校・高校教育のカリキュラムでは、以下の内容が現在と比べどの程度強調されるべきだとお考えですか？

1. 特に強調する。
2. 強調する。
3. 変更無し。
4. 削減する。
5. 特に削減する。

● 各教科の入門的・基礎的な知識	1	2	3	4	5
● 各教科の高度な知識	1	2	3	4	5
● 外国語教育	1	2	3	4	5
● 他文化について学ぶ	1	2	3	4	5
● 日本在住の外国人の文化について学ぶ	1	2	3	4	5
● 他文化を尊重する態度を養う	1	2	3	4	5
● 個人の責任能力等を養うことを含めた、「心の教育」	1	2	3	4	5
● 修学旅行等で外国を訪問する	1	2	3	4	5
● 世界的な問題について学ぶ (環境問題、人権問題、戦争と平和など)	1	2	3	4	5
● 情報科学教育	1	2	3	4	5
● 学校外での学習 (一日就職体験、地域の伝統についての学習、福祉活動など)	1	2	3	4	5

9. もし以上のようなカリキュラム内容の変更が実施された場合、実施する上での問題は生じると思いますか？

思う

思わない

- ・「思う」と答えた人は、どのような問題が生じるかを書いて下さい。

10. 指導教授方法

グローバル時代の中学校・高校教育では、以下の指導教授方法が現在と比べどの程度強調されるべきだと思いますか？

1. 特に強調する。
2. 強調する。
3. 変更無し。
4. 削減する。
5. 特に削減する。

● グループ単位の指導	1	2	3	4	5
● より個人のペースに合わせた個人的指導	1	2	3	4	5
● クラス単位の指導	1	2	3	4	5
● コンピューターを利用した指導	1	2	3	4	5
● 課外活動等を含めた、体験学習	1	2	3	4	5

11. もし以上のような指導方法の変更が実施された場合、実施する上での問題は生じると思いますか？

思う

思わない

- ・「思う」と答えた人は、どのような問題が生じるかを書いて下さい。

1 2. 評価方法

グローバル時代の中学校・高校教育では、以下の評価方法が現在と比べどの程度強調されるべきだと思いますか？

1. 特に強調する。
2. 強調する。
3. 変更無し。
4. 削減する。
5. 特に削減する。

● 筆記試験	1	2	3	4	5
● 口頭試験	1	2	3	4	5
● クラスでの発表	1	2	3	4	5
● レポート・小論文	1	2	3	4	5
● 研究課題	1	2	3	4	5

(生徒が個別で、あるいはグループ別で自主的に研究を行うことを要する課題のこと)

1 3. もし以上のような評価方法の変更が実施された場合、実施する上での問題は生じると思いますか？

思う

思わない

- ・「思う」と答えた人は、どのような問題が生じるかを書いて下さい。

14. もし現在の中学校・高校教育に以上の質問内容のような変更がなされた場合、その変更に対応して、大学入試はどのように改善されるとよいとお考えですか？自由に意見を述べて下さい。

15. 最後に、どのように中学校・高校教育が変わってゆくとよいとお考えですか？または、このまま変わらなくてもよい点は何だとお考えですか？自由に意見を述べて下さい。

ご協力ありがとうございました。

加藤 優子

APPENDIX 7: Interview to Japanese teachers at secondary school undertaken in May 1999

1. 「グローバル時代」という言葉から、何を想像しますか？
2. グローバル時代に備え、中学校（高校）教育の目的は変化すべきだと思いますか？もしそうだとしたら、どういう風にですか？
3. グローバル時代に備え、中学校（高校）教育で教えられている内容は変化すべきだと思いますか？もしそうだとしたら、どういう風にですか？
4. グローバル時代に備え、中学校（高校）教育での教授方法は変化すべきだと思いますか？もしそうだとしたら、どういう風にですか？
5. グローバル時代に備え、中学校（高校）教育での評価方法は変化すべきだと思いますか？もしそうだとしたら、どういう風にですか？
6. （もし以上のような変更がなされた場合）大学入試は変わるべきだと思いますか？もしそうだとしたら、どういう風にですか？
7. もし以上のような変更が実施された場合、どのような問題が発生すると思いますか？
8. 最後に、何か他に中学校（高校）教育で変わるべきだと思うことがあったら、教えてください。

ありがとうございました。

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