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PhD thesis

The variations and the changes in the school librarians' perspectives of information literacy

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A thesis submitted in partial satisfaction of the requirements

For the award of the degree of Doctor of Philosophy in School and Children libraries

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In the name of Allah

The Compassionate

The Merciful

{ ربِّ اوزعنِي أن أشكُر نِعمَتكَ التي أنعَمتَ عَلَي

وعَلىَ وَالِدي وأن اعمَل صَالِحا ترضَاهُ وأصلِح لي في ذُريتِي

إِنِي تُبتُ إليكَ وإِني مِن المسلِمين}

"My Lord, grant me that I should be grateful for Your favour which

You hath bestowed on me and on my parents, and that I should do

good such as You are pleased with and do good to me in respect of my

offspring, surely I turn to You,

and I am of those who submit."

(The Holy Quran, 46: 15)

إننا إذا أسكتنا صوتاً فربما نكون قد أسكتنا

الحقيقة، وإن الرأي الخاطئ ربما يحمل في جوانحهِ

بذور الحقيقة الكامنة، وإن الرأي المجمع عليه لا

يمكن قبوله على أسس عقلية إلا إذا دخل واقع

التجربة والتمحيص، وإن هذا الرأي ما لم يواجه

تحدياً من وقت لآخر فإنه سيفقد أهميته وتأثيره

جون ستيوارت ميل

Declaration

This work is submitted as a partial fulfilment of the degree PhD in Information Studies awarded by Sheffield University. So, I declare that this dissertation is my own work, and all used materials are correctly and ethically acknowledged.

Signed by:

Shahd Salha

Special acknowledgement

The greatest Thank is to my Lord Almighty Allah for his great and wonderful support

I dedicate this work to my affectionate husband and daughters Nagham and Manar who always provide support, love, understanding and inspiration. Thank you very much you enriched my journey.

Acknowledgment

Abstract

Information literacy was the investigated subject of this PhD research which aimed to study the variations and changes in Syrian school librarians' conceptions of information literacy. The main target group was a twenty Syrian school librarians working in high schools in Damascus and its Suburb, ten of them graduated librarians and the rest are classroom teachers who were transferred to the library to perform the duties of the school librarian. The targeted group was purposely selected with intention as broadest as possible samples from different educational, social and ethical backgrounds.

The researcher adopted a phenomenographic approach to discover how the Syrian school librarians conceive the phenomenon of information literacy and how their conceptions changed after attending an information literacy programme designed by the researcher.

The research was in three phases: the first phase aimed to discover and study the school librarians' conceptions of information literacy by conducting a pure phenomenographic approach. Six different conceptions of information literacy were emerged as a result to first phase analysis. The second phase aimed to provide the school librarians with a wide range of perspectives, conceptions and thoughts of information literacy discussed worldwide via an information training programme designed especially to serve that purpose. The training programme was designed by the researcher who consulted a broad literature and methods in attempts to integrate different ideas from different territories. For example, she employed business methods such as Eat the Elephant strategy and SWOT analysis, training methods such as icebreaking and team working, Soft System method such as rich picture and mind map, educational methods such as integrating different teaching styles to meet different learning needs style and communication method such as body language and presentations. The third phase aimed to discover the variations and changes in school librarians' conceptions of information literacy by conducting a new phenomenographic approach. The third phase was conducted six months after the second phase to give the participants chance to discover the concept of information literacy in real world practice. Seven different conceptions were emerged as a result to analysing second phase interviews.

The findings of the research indicate that the school librarians' conceptions of information literacy at the first phase were influenced by their context (school library) and experiences as school librarians, though, further studies are vital. In the third phase the school librarians

evidenced more complex and boarder conceptions. Further they were able to combine and create different conceptions to meet their schools' needs. It is interesting to mention that school librarians were not only able to create new conceptions of information literacy that meet their needs, but they were also able to in the Arabic literature.

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1) Comparing between both phases 'categories and interviews.

2) Comparing with related previous research studies.

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CHAPTER 1: Rationale for the Study

1. 1 Information literacy

Information literacy (IL) has been the subject of a considerable number of research studies which have been conducted to examine the concepts and interpretations of the term in different contexts (Bruce, 1997; Williams and Wavell, 2006; Webber *et al*., 2007). Reviewing the literature has revealed that much attention has been paid to studying this concept within higher education institutions. In addition, most of the research studies were in English-speaking countries, with a dearth of research studies which concerned other contexts, particularly Arabic-speaking countries (see Chapter 2).

Hence, this study aims to contribute to the universal discussion regarding IL, and to add some strength to the IL field, by examining and studying the variation and the changes in Syrian school librarians' conceptions of IL. This study is a long-term research study and has involved two phases of phenomenographic studies and a training programme (see Chapters 2, 3 and 4).

This chapter provides the rationale and background of the study and addresses the need for discovering librarians' perceptions of information literacy in less developed countries such as Syria. This chapter will begin by addressing the study background, followed by describing the motivation that drove the study, and the selection of the context in which the study was conducted. The aims of this study and the research questions asked will then be defined. The chapter will also provide an explanation of this study's journey, and includes a diagram that describes the study stages and details the activities conducted at each stage. Finally, the boundaries of the study will be addressed.

1.2. Background to study

 Zurkowski (1974) conceptualised IL as a universal requirement which emerged as the result of regular and rapid change of; 1) information-seeking behaviour, 2) users' information needs, and 3) human rights to access information freely. The American Library Association (ALA) in 1989 conceptualised IL and defined information needs as "*to*

recognise when information is needed and have the ability to locate, evaluate and use effectively the needed information" (P.1). Doyle (1992) extended the ALA's concept and stressed that an information literate person must have a critical vision and awareness of the needed information. An information literate person is one who "*recognises that accurate and complete information is the basis for intelligent decision making; recognises the need for information*" (P.29). Hence, information literate information behaviour:

> "*formulates questions based on information needs; identifies positional sources of information; develops successful search strategies; accesses sources of information including computer-based and other technologies; evaluates information; organises information for practical application; integrates new information into an existing body of knowledge and uses information in critical thinking and problem solving*" (Doyle,1992: P.4).

Bruce (1997) presented the concept of seven faces of information literacy, demonstrating that IL has the possibility to be thought of as wisdom (face 7) or critical thinking and knowledge construction (face 5). The findings of this research demonstrated that IL is able to encompass those conceptions as well as others in relation to the context in which IL was identified (see Chapters 5 and 6).

According to the earlier-mentioned studies, IL was conceptualised to reflect concepts which emerged in countries with a similar background in terms of information technology tools, information resources accessibility and availability, and education systems which motivate innovation and creativity. Nevertheless, a clear variation exists between these concepts for the same phenomenon. Breivik and Gee (1989) argued that there is no consensus regarding the IL concept and its related activities. Many librarians focus on computer and digital literacy activities, others still preserve a bibliographic orientation approach, while some conceive IL as a revolution in and out of the library.

Furthermore, although many IL models have been produced which embody strategic guidelines to encourage educators teaching IL in schools, there is evidence of a misleading assumption that educators have a clear vision regarding the possible IL interpretations and relevant concepts, and that they are already information literate (Wavell and Williams, 2006). In addition, there is a dearth of research studies which aim to study IL needs in specific

contexts, which is vital if one is to design contextualised models of IL (Lloyd and Williamson, 2008).

Accordingly, in the Arabic region, and more specifically in the Arabic Gulf countries such as Kuwait, the United Arab Emirates and Saudi Arabia, where information technology and telecommunication infrastructures have been implemented since the early 1990s, IL initiatives have been introduced to educate students who are able to use information technology fluently. Accordingly, IL programmes have been implemented to simulate the American conception of digital literacy rather than IL; therefore the result was not auspicious. For example, Lesher (2002) argued that the IL programme in Kuwait suffered from a lack of materials, lack of governmental support, lack of professional staff and the absence of accurate concepts. Ashoor (2007) added that Arabic countries face dramatic problems with implementing and developing a successful IL programme. These problems are related to three key issues: traditional education systems, the low literacy rate, and the low level of publishing. Lesher (2002) added that, within the school sector, the non-Arabic schools which are funded by non-local organisations adopt their founders' concepts of IL and implement IL programmes to meet these.

In Syria, the concept of IL has not been introduced, discussed or conceptualised by any expert or organisation. School libraries in some cities are impoverished and ignored, and in other cities they are rich and supported (Ali, 2007). Furthermore, a conflict in the interpretation of literacy was observed. For example, while policy-makers in the Syrian Ministry of Education identified literacy to mean the ability to use digital tools and information communication tools, literacy to an extensive number of people still means the ability to write, read and calculate, and developing this basic literacy is still critical and a challenge in both the government and education settings (Ministry of Education, Syria, 2007; UNESCO, 2008).

Under the logo *Information Literacy for All*, UNESCO (2008) delivered a series of worldwide training programmes and one of those programmes was hosted by the Alexandria library in Egypt between the 4th and 6th of November 2008. The programme introduced the concept of IL from the American perspective, with a greater emphasis on technology (www.bibalex.org/TTTworkshop/attachments/program/S03_Sweeney.pdf.). A

lack of consideration of other contexts and perspectives, as well as a lack of understanding of Arabic countries and their people's needs was recorded (see Chapter 4). Therefore, there is an urgent and necessary need to determine and study the current conceptions of IL in order to develop IL training programmes that meet local needs (Bruce, 1997).

1.3. Motivation

As a researcher, I was initially interested in designing a digital school library of benefit to all schools in Syria. Following my extensive observations, however, I realised that Syrian school libraries are not ready to go digital for a number of reasons (see Section 1.4). This interest stemmed out of my experience as a teaching assistant for five years at the Library and Information Department of Damascus University, Syria, where I was involved with schools and children's libraries, as well as informatics and computing. Prior to this position, I was an information specialist at the Arabic Encyclopaedia for two years and at the National Information Centre for a year. Following my comprehensive reading and understanding of the literature, I realised that preparing school librarians to be information literate could be the first step towards successfully implementing a central digital school library in Syria, which is still my ambition. IL is a powerful tool which can motivate people to be creative citizens and also enables them to contribute effectively to their communities and promote change (UNESCO, 2008).

IL as a term has not been conceptualised or addressed in the Syrian context before. I was, therefore, curious to know how IL as a term would be understood by school librarians who had not received any systematic education or training in IL, and to discover what changes an IL training programme could bring about to their previous conceptions. The main studies which inspired this research were: Trigwell and Prosser's (1996) thoughts about teachers' perspectives of teaching and its impact on practice; Marton and Booth, (1997); and Marton and Tsui's (2004) ideas about the learner's perspectives of learning and its impacts on their awareness. Furthermore, Bruce (1997), Bruce, *et al.* (2007) and Johnston and Webber (2003) emphasised the need to understand the local needs and perspectives of IL.

A discussion regarding the choice of the research methodology is provided in Chapter 3. Phenomenography as a research approach emerged in the late 1970s and has been the central approach for a considerable number of research studies in the United Kingdom (UK), Sweden, United State of America (USA) and Australia, and studies on the concepts of IL in different

contexts. Nevertheless, this approach has not been adopted for any of the previous studies conducted in Arabic-speaking countries. Adopting such an approach and examining the possibilities of the application will, therefore, enrich the current literature with new perspectives on both the subject of IL and the method of phenomenography.

1.4. Purpose of the study

In response to the inadequacies of Arabic perspectives with regard to conceptualising IL, this study has been conducted in order to understand the different ways in which both graduates (who hold a Licence from the Library and Information Science Department at Damascus University) and non-graduate Syrian school librarians (who are trained as classroom staff but work in the school library) conceive IL, and the change in their conceptions in terms of their awareness of the phenomenon of IL after attending an IL training programme designed by the researcher (Pang, 2002). Understanding the variations in the ways in which Syrian school librarians conceive IL enabled the researcher to explore the pragmatic criteria which can be used as the basis for teaching IL to future librarians. This interest has much in common with the developmental interests described by Bowden (1995, 2000a) and McKenzie (2003).

1.5. Research aims

This study aims to:

1. Yield descriptions of IL in term of conceptions, based on Syrian school librarians' different experiences of IL.

2. Discover the possible changes in their conceptions after experiencing real-world training and practice.

3. Enhance the understanding of how IL appears to school librarians in a less developed country (Syria).

4. Pave the way for creating a new application for the phenomenographic research approach in Arabic countries.

1.6. Research questions

1. How do school librarians conceive IL?

2. To what extent would participating in an IL programme change those conceptions of IL?

3. What are the possible applications of phenomenography in an Arabic context?

In accordance with variation theory and its impact on human learning and awareness (Marton and Booth, 1997; Marton and Tsui, 2004), this study argues that studying and analysing the school librarians' conceptions of IL before and after attending an IL programme enables us to:

- Measure the awareness of a specific phenomenon which has not been previously experienced through introduced concepts.

- Discover how much change to the presented concepts could be acquired through one set training programme.

Variation theory is the core of the phenomenographic approach introduced by Marton (1981). The researcher adopted this approach because:

- The phenomenographic approach is the most appropriate approach that reveals people's different perspectives on a specific phenomenon, which is a significant aim of this study.

- As the second aim of this study is to discover any change in concepts, a phenomenographic approach paves the way toward achieving that aim (Marton and Booth, 1997).

- Phenomenography as an approach not only enables change, but also promotes change to people's behaviour and skills, because, as Marton stated, it is an idea that stands *against the rationalist tradition of thinking*.

- Although the number of studies which have adopted this approach in the last two decades has increased rapidly (Bruce, 2003), in the Arabic region this is the first study which has been conducted with such an approach. This study has the chance to acquire the honour of introducing and testing this approach within the Arabic culture and to contribute to the universal debate in this context.

Understanding peoples' different interpretations of a specific phenomenon has been the core of few academic research studies. Trigwell and Prosser (1996) argued that teachers who experience new teaching experiences adopt a related approach based on their previous experience. Thereby, a teacher's conceptions of teaching appear to be related to the approaches that the teachers are capable of adopting, rather than the approach they have to adopt simply because they are unaware of available alternatives (cited in Mackenzie, 2003)

Williams and Wavell (2006) argued that, although teachers' conceptions of IL remained fluid and continued to evolve throughout the research stages, they were able to reach the stage where they had different concepts of the same phenomenon which impacted positively on their contributions to students' learning. They added that school librarians need to understand different concepts of the phenomenon of IL and they need to consider IL as a learning activity rather than a library-based activity.

The research by Williams and Wavell (2006) focused on teachers' conceptions of IL and its impact on the learning environment, without paying much attention to the school librarians' conceptions of IL and its impact on their practice. This study, therefore, has the chance to fill this gap, by discovering the variation and changes in the ways in which school librarians conceive the phenomenon of IL before and after attending an IL programme.

1.7. Project journey

Accomplishing the aims of this study and answering the related questions went through four main stages; additional sub-stages constituted each stage, as illustrated in Figure 1.1:
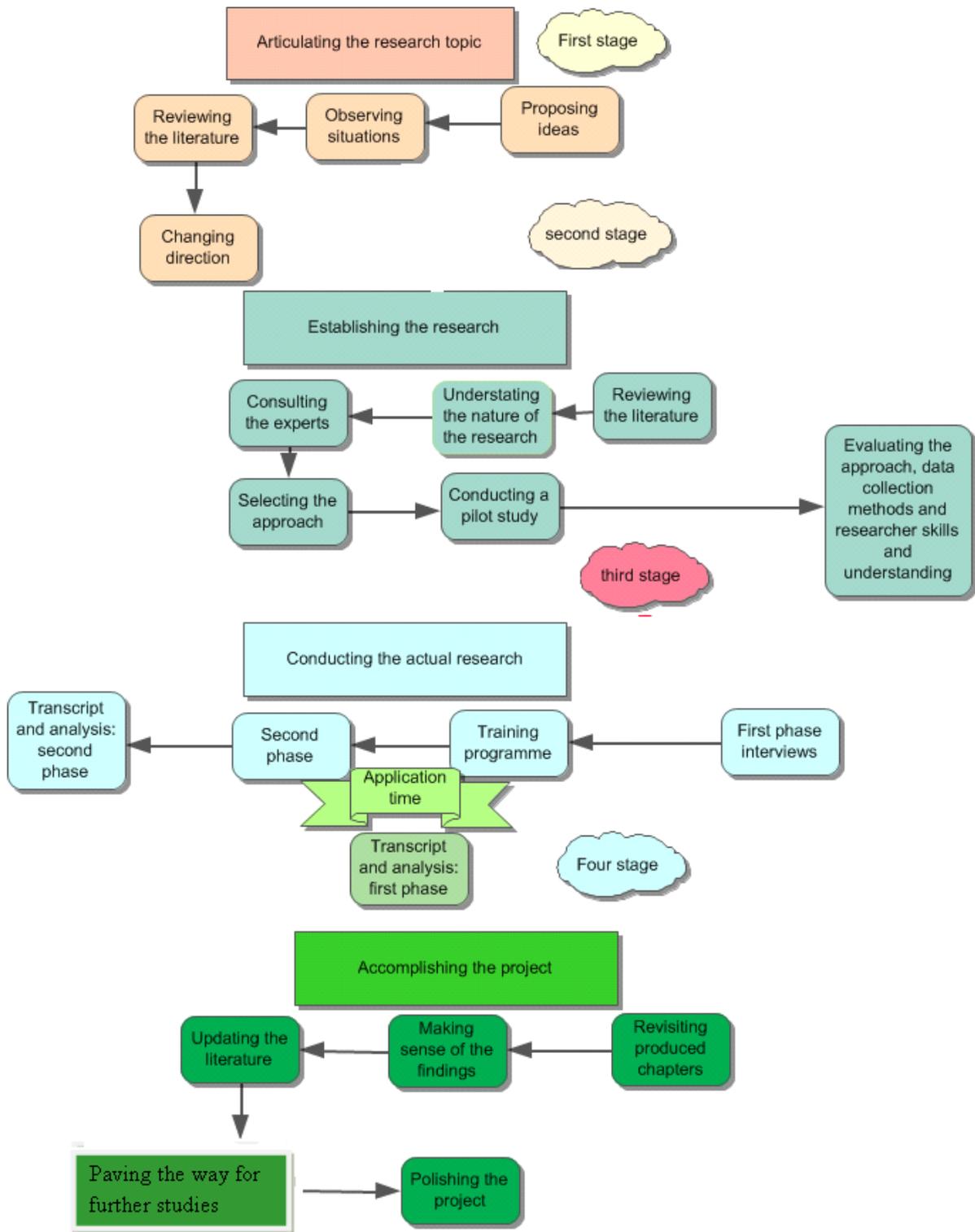
Figure 1: The project journey

As can be seen from Figure 1.1, four different stages were identified to complete this research journey. Each stage has its own title and is constructed of sub-stages as follows:

First stage: Articulating the research topic

This study was set up in April 2007. The journey was begun with an initial interest in implementing and designing a digital school library in Syria to meet the Syrian pupils' needs. This interest was based on the researcher's previous qualifications, work experience and personal interest. However, after long observations and consultation, it was realised that the Syrian education set-up was not ready for such a step, due to lack of funds, facilities, buildings and skilled staff. Further feasibility studies should be undertaken before implementing a digital school library (see Chapter 8).

Due to the fact that the first three factors were out of the researcher's control, the main focus was therefore directed towards school librarians' skills. After four months of a wide and deep review of the literature, the study was fixed on determining the school librarians' conceptions of IL, and how those conceptions would be changed after attending an IL programme. In the following three months, the researcher identified research gaps in the literature (see Chapter 2), centralised the focus of the research, formulated the aims of the research, determined the main questions, looked at the possible research methodologies and methods of data collection, designed the research process and identified the limitations of the research. During this stage, the researcher attended many local workshops, IL sessions and conferences to enhance understanding of the term 'IL' and its common understanding and interpretations.

Second stage: Establishing the research

Having identified that the study was to determine the school librarians' conceptions of IL, a number of research methodologies were potential candidates for use in this study. A broad review of the literature, the deep understanding of the nature of the research questions to be asked and the suggestions of experts, were all genuinely helpful factors towards making the decision to use a phenomenographic approach (see Chapter 3). By June 2008, the researcher had laid the foundation stone in her data collection process by interviewing 10 school librarians in a pilot study, and then examined the proposed training programme with the help of the same librarians (see Chapters 3 and 4). The main aim of the pilot study was to help the researcher amend the research questions, to discover any weaknesses in the interview structure, to understand the cultural needs, to test the selected method, and to

discover the weaknesses and gaps in her interviewing techniques, skills and procedures. In addition, the researcher wanted to identify possible ethical and professional concerns before undertaking the actual study. This stage was called "*establishing the research*". The researcher at this stage attended the 'Training the Trainers for Information Literacy' programme hosted by Bibliotheca Alexandrina, Egypt, and delivered by UNESCO, in order to improve her vision of the available training themes provided in the field of IL.

Third stage: Conducting the actual research

After the pilot study conducted during the "*Establishing the research*" stage, the researcher conducted an evaluation of the results and amended the interview questions, techniques, skills and processes, as well as the training programme. At this stage all the required documents and permissions were prepared and possible risks and ethical concerns were assessed (see Appendix 1). From January 2009, the first phase of interviews with 20 Syrian school librarians were conducted (see Appendix 2) and the IL programme was introduced in February 2009, which required two weeks of regular attendance. The school librarians were then given four months in which to practice their new conceptions of IL. During this four month period, the researcher transcribed and analysed the data collected from the first phase of interviews and prepared for the second phase. In June 2009, field-work recommenced and the second phase of interviews was conducted with the same 20 Syrian school librarians. By July 2009, transcription and analysis of the second phase of interviews were underway, in order to be ready for the next stage: "*Accomplishing the research*" in January 2010.

Fourth stage: accomplishing the research

Once all the required data had been collected, transcribed and analysed, the last stage of the project was undertaken. This component of the project had a pivotal role when bearing in mind the amount of work required completing each of the previous stages. Although a considerable amount of written work was produced in the early stages, there was a need to revisit all the chapters so far produced, to ensure the cohesion of the final work and to update the information presented to correspond with newly published work in the field of IL and phenomenography. The need to discuss how the school librarians' conceptions of IL have changed was a crucial chapter. Paving the way to encouraging further research studies was considered a main component of this stage.

1.8. The boundaries of the research

This empirical research intends to explore one of the problems associated with determining the conceptions of IL for Syrian school librarians. The primary question is one associated with meaning and concepts. What are the different ways in which IL is experienced by Syrian school librarians before and after attending an IL programme? The outcome of this course contributed to changing the school librarians' concepts of IL. Evaluating the programme design and identifying its impact on other notions are of secondary importance.

The study inquires into how IL is experienced, not the nature of IL. The question posed is: what are the different ways in which IL is conceived, that is, experienced, understood or conceptualised? Hence, the main aim of this research was not to answer the question "*what is information literacy?"* but rather "*what does IL mean to Syrian school librarians?*"

The types of conceptions which were to be determined belong to the Arabic context, and more specifically to the Syrian school context. Consequently, the perspectives which emerge will only portray the varying experience of members of this culture.

Although findings which emerge from this research are likely to apply to contexts other than school education, the need to understand the phenomenon in these other contexts is fundamental to discovering further variation in the experience of IL.

1.9. An overview of contents

This thesis is organised into eight chapters, as follows:

Chapter 1: Introduction. This chapter is designed to provide a comprehensive view of the research study, including: the study background, motivation, the origin of the research topic, the study process, the research aims, the research questions and the contents of the thesis.

Chapter 2: Literature review. The aim of this chapter is to provide an illustrative theoretical background of the concepts of IL which have emerged in the different contexts, reflecting different perspectives and understandings. Unlike previous phenomenographic research studies, a descriptive background is included presenting the Syrian school librarians' educational, social and work experiences; this was provided due to the nature of the context of where this study was conducted.

Chapter 3: Methodology. This chapter aims to discuss the methodological approach of phenomenography, which was adopted to answer the research questions. The chapter will highlight the different perspectives of phenomenography and their rationale, selection justifications, criticisms of phenomenography, the approaches of this study including the selection of school librarians to participate in the study, the pilot study, the process of data collection, and the composition of data in both phases. Finally, analysing the transcripts in relation to the different components of the study (including the pilot study and two phases of interviews) and the data analysis will be discussed in depth.

Chapter 4: The information literacy training programme. The first section of this chapter will discuss the theoretical principles that the researcher used to design the IL training programme. The chapter will summarise these principles as four benchmarks. In the later sections, the process of piloting the training programme will be presented, followed by an explanation of the actual programme's stages and processes.

Chapter 5: Variation in ways of experiencing information literacy: first phase. This chapter will present the findings of the first phase of interviews as they were categorised, followed by the outcomes associated, and includes characteristic quotations from the transcriptions. The chapter will discuss the type of relationship established between the categories and the critical aspects of their related dimensions of variation. Finally, a comparative analysis of the categories which emerged and the literature will be presented.

Chapter 6: Variation in ways of experiencing information literacy: second phase. In accordance with the structure of Chapter 5, this chapter will firstly present the categories which emerged from the second phase questions; secondly, illustrations of the categories will be presented, followed by the outcomes associated, with characteristic quotations from the transcriptions. The later sections will discuss the relationship between the categories which emerged and the dimensions of variations. The researcher will also compare this phase of findings to the literature. A comparison between the categories which emerged from this phase and the conceptions introduced by the researcher at the training programme will be conducted at the end of this chapter.

Chapter 7: Comparing the categories from both phases. This chapter will provide a comparative study of the categories that emerged from both phases and discuss the changes in terms of IL concepts. Unlike previous phenomenographic studies, the researcher in this

study identified three different themes of similarity between both phases of interviews and highlights them in this chapter. Finally, the chapter will briefly discuss the influence of school librarians' backgrounds on the nature of the categories and a hypothesis will be produced as a basis for further research studies.

Chapter 8: Conclusion and future work. This chapter aims to represent and summarise the journey of this study and to revisit all the previous chapters of this thesis in order to elaborate on the implications and contributions of this study to the fields of IL, the phenomenographic approach, library and information science in Arabic literature and to Syrian school libraries. This chapter will be start by looking at how the primary questions of this thesis have been addressed by the research outcomes, as described in Chapters 5 to 7. These will then be related to the literature described in Chapter 2, to look at how these findings contribute to the debate on the conceptions of IL from the perspectives of school librarians, their ways of experiencing IL and possible development and change. The chapter will then highlight the implications of the research findings for future studies and for librarianship development practices that seek to encourage change in school librarians' ways of experiencing IL.

CHAPTER 2: Literature Review

2.1. Introduction

This thesis aims to discover the variation and changes in school librarians' ways of experiencing conceptions of IL; therefore, the presented literature review was produced to achieve this aim. A literature search was carried out since the decision was made to conduct this topic for the PhD. The searching journey was divided into two stages: search and read to learn stage, and learn and understand –to- write stage.

The first stage, *search and read to learn*, aimed mainly to build up the researcher's knowledge about the new term IL and relative issues. Google Scholar, Yahoo, Msn, LISA, Emerald, Web of knowledge and Bing as a search engines associated with Boolean and advanced search were used to build up the researcher's knowledge. She was aware that the acquired information would help her understand the term and its relevant ideas and she did not have any intention to use retrieved information to create the study's literature review. Therefore, she paid the total attention to reading to learn rather than reading to write. Information literacy, information skills, digital literacy, media literacy, information literacy definition, information literacy models, information literacy toolkits, and information literacy in schools, information literacy: literature reviews are all keyword were used by the researcher to acquire the required information. At this stage, the researcher attempted all the way through to meet experts in the topic and discuss with them information literacy concepts to clarify all ambiguities in the ideas. This stage required from the researcher ten weeks (70 hours per week) of searching and digging to state up her knowledge of IL.

The "*Learn and understand to write*" stage begun when the researcher felt positive with her knowledge of the definitions of the term and its relevant ideas. The researcher main aims were: to consult selective and considerable information resources to understand the concepts rather the definitions of IL, which helped her mainly in designing this chapter of the study. The earlier journey of the reading produced confusion in a few key terms such as "concept" and "definition" especially that in many occasions the written and oral literature overloaded and jumbled both terms. Furthermore, as the researcher's mother tongue is Arabic, she did not have any clue what the word concept would means in the English language context. The researcher found that, while the general conceptions are mainly produced through abstraction;

they are the common element among the many images of members of a class. As "*we form a set of phenomena into a class, that is, when we compare them with one* [another] *to ascertain in what they agree, some general conception is implied in this mental operation* "(Mill, 1843, P. 23). Svensson (1997) described a concept as an abstract, linguistic unit related to understanding parts of the world. Furthermore, according to Ekeblad and Bond (1994) it can refer to the experienced meaning of a phenomenon, or "*the dynamic human engagement with the phenomena in the world*" (P.150)

On the other hand, she understood that the word definition came from define which means according to Longman Dictionary" *to give a clear meaning (s) of (a word or idea)* "also it means to *"set, mark or show the limits, edge, or shape of"* (P.288). Accordingly, the word concept could provide the opposite meaning of the word definition because concept invites to freedom in thinking while definition invites to limitations. The researcher's awareness, thus, of the meaning of the word concept became different; this in turn impacted her understanding of the meaning of IL which directed her reading toward understanding how IL has been conceptualised in different contexts rather than study how it has been defined.

The researcher employed the university databases such as LISA, Emerald, Index of thesis, Web of Knowledge and Dialogue LLC as well as a chain of library services including inter-loan library systems to find thesis, dissertations, well known books, media news, electronic and hard copies of journals' articles, reports and white papers. She also attended a few important conferences in the UK and the Arabic region to understand how the concept was introduced in different contexts. She participated in IL training programmes in the UK (e.g. The Future is Now programme hosted by School Library Association (SLA) and took a place in Nottingham- UK in 2007) and in the Arabic region(e.g. Training –the- Trainers for IL which took a place in Alexandria- Egypt in 2008 and hosted by UNESCO) to understand how the concepts of IL were introduced and to what extent the provided training programmes were able to help the librarians and professionals understand the concepts of IL and create the concepts that meet their contextual needs. Attending the last programme was a great chance to the researcher because the programme, which was a series of IL training programme introduced by the UNSECO, (2008) worldwide, presented non Arabic perspectives of IL in the Arabic context. The researcher was able to observe the dearth of satisfaction from the audiences' sides who insisted that the presented concepts would not communicate the Arabic needs. The audience emphasised the need to understand and study the current concepts of IL

in the Arabic countries before implementing any further training programme. Although the journey of this stage required extra efforts and costs, it was great experience to the researcher who was able to decide at the end how to formulate the literature review of her study.

The literature review is separated into sections; the first section discusses the concept of IL in the academic context. This section aims to provide comprehensive and in depth discussion to how the concepts of IL were understood in different academic contexts. It has been addressed that IL was introduced in the academic context in different countries mainly based on two focuses: educational focus and social focus. The following section will highlight Syrian school librarians' educational, practical and social contexts. The main aim of this section is to familiarize the readers of this thesis with the Syrian context. The chapter, thus, will be begun with descriptive discussion to the context, and then discussion in detail of the Syrian school librarians' educational, social and practical contexts will be provided.

2.2. The concept of information literacy in the Academic context

2.2.1 Introduction

Initially, it has been agreed that IL as phenomenon has emerged as a result of the development of a few precursors such as library instruction and bibliographic instruction (Rader, 1991; Snavely and Cooper, 1997a; Bruce, 2000 and Seaman, 2001) .The term developed rapidly since technologies with the evolution of the Internet and virtual information resources have influenced every signal aspect in human's life which became as Todd (2001) stated "*complex and fluid, connective and interactive, diverse, ambiguous and unpredictable, and one is no longer constrained by physical collections, time, place and national boundaries (P.4).* This, in turn, encouraged the fruition of new learning methods such as IL.

IL was introduced mainly to help students invest available information resources effectively to achieve better academic and citizenship communities (Ibid). Responding to the new comers' needs, the experts in the Library and Information sector spent considerable efforts to conceptualize the idea of IL, thereby, a group of models equipped to illustrate the complexity of information gathering and the various cognitive processes involved in evaluating, processing and extracting the available information.

Most of the designed models were produced mainly to serve higher education sectors. Logically, this could be reasonable because higher education sector have three main dominations that other education sector, especially schools, do not have at the same level of richness. These are: 1) governmental support 2) funding support 3) experts' interests. These dominations drive higher education sector experts and academic staff to create their own space. Web-Blogs, websites, online conferences, YouTube and many other web.2 tools have been invested to create communicative and attractive environment to introduce IL for both educationists and students. All that, without ignoring to the role of the academic staff who illustrated the current concepts of IL embedded in different departments (Webber and Johnston, 2000, 2002, and Webber, 2003).

The school educators, due to the growing numbers of students who are using the large number of information resources for conducting research and for communication purposes created specific range of IL models to support their communities. PLUS+ Big six + search seeking process are all models created to assist IL evolution within schools (Herring, 1996+ Eisenberg, M et al, 2004+ Kuhlthau, 2004).

Bruce (2003) saw that since the early 1990s, the international literacy year as UNESCO announced, some significant shifts of IL movement have been recorded. Virkus (2003) mentioned that considerable IL research studies on IL are being conducted to discover the need from and the practical applications of, IL in academic organizations as well as workplace.

Since 2000, the concept of IL has started to move and the interests of establishing academic institutions and conducting more research to study this new concept   increased rapidly as the fire in the hay. According to Bruce (2007) the 2000 period is the era of evolving IL research studies. Thus, more studies to understand the concept worldwide have been conducted. Unfortunately, not all the established studies and conducted research were translated to English, hence, the possibility for the researcher to access and understand all established concepts of IL is questionable.

It has been noticed that, although the related IL literature that discussed IL concepts in the academic institutions introduced the concept of IL in various ways, the focus was mainly on educational and social areas. Furthermore, it has been discussed that this focus dominated the

movement of IL not only in the UK but also worldwide. The following sections discuss these issues in detail.

2.2.2. Information literacy in the academic context; educational focus

This section discusses the conceptions of IL in the academic context including higher education and schools sectors as they were reflected from different perspectives in different countries. As the main context of this study is the school context, then much attention will be paid to discuss the concepts of IL in that context. The following subdivisions will provide broader discussion.

2.2.2.1 The concept of information literacy in the higher education context in English speaking countries

It was argued that, although the concept of IL was mainly introduced in the schools to serve pupils' educational needs (ALA,1989) not much efforts, comparing with higher education institutions, have been spent to study and observe the current concepts of IL in school context. This can be due to the fact that higher education organizations receive greater funding than schools in (e.g. per capita library receive better fund) which make researchers more interested in studying the concepts of IL in higher education institutions and universities rather than schools. And might be also related to the nature of the schools and their accessibility procedures which someone need to take to conduct a study in a school and to interview children (e.g. in the UK CRB check is always required once someone requires communication with children in Syria the Minster of Education permission). Insisting that the main focus of this research is not the higher education institution then only brief discussion will be introduced to reflect the concept in this context.

Briefly, the two very popular studies in the higher education context which discussed academics' conceptions of IL were Bruce (1997) from Australia and Webber.et .al (2005) from UK. Bruce in her *book Seven Faces of Information Literacy* has caused a revaluation in the way of thinking about IL how it could be experienced in different ways. The findings of her study demonstrated that people understand and perceive IL in different ways according to their contexts (figure 2)

Figure 2: Seven Faces of Information Literacy as introduced by Bruce (1997)

Source: (Bruce, 1997)

Bruce adopted the phenomenographic approach in the light of variation theory (see chapter 3) to acquire those findings. She extended the horizon of IL concepts to help decision makers realize that IL conceptions are diverse and can be applied in different ways to satisfy different needs. The work of Bruce has inspired many professional bodies inside and outside Australia to demonstrate new ideas to the concept of IL. For example, the Council of Australian University Librarians published in (2001) *Information Literacy Standards* in its first edition; IL was understood as an essential and condition for 1) participative citizenship; 2) social inclusion; 3) the creation of new knowledge; 4) personal, vocational, corporate and organizational empowerment and 5) learning for life (the Council of Australian University Librarians,2001).

 Webber, et al. (2005) in UK adopted Bruce's pathway and conducted a phenomenographic approach to study and compare a different groups of UK academic's conception of IL in four disciplines: English, Marketing, Civil Engineering and Chemistry. The study findings

asserted on the fact that academic's different conceptions of IL, even within the same discipline, make the aspects of IL which are emphasised and progressed through a different course. Webber et al.'s study made evident that embedding IL to support educational need without understanding the possible concepts of IL might lead to ambiguity during the implementation. This can explain why the concept of IL has been criticized in the literature by different scholars (Library Association; Policy Advisory Group, 2001; Rogers, 1994; Heather, 1984).

Webber and Johnston (2003) stated that UK suffers from a dearth of consideration to the value of IL as a fundamental notion for education. Furthermore, there is a misunderstanding to the role of ICT in developing IL which led to overemphasis on the technological aspects of IL. They add that, although IL situation in the UK is not very satisfying "*…. there is a great potential for information literacy to be recognized and developed, but outside the library and information community, it is a cause waiting to be discovered* "(Webber and Johnston, 2003). It is significant to know that Webber and Johnston's main interest since 2003 has focused on understanding and studying students, academic staff and librarians' conceptions of I which can be demonstrated by the amount of academic papers, seminars, presentations and researches conducted by them to satisfy that interest (Webber and Johnston, 2004, 2005, 2007, 2008,2009 and 2010).

It was argued that, although academic institutions show increased interests of conducting researches that study IL concepts and needs in academic institutions (Bruce, 2006); the findings which emerged from such research studies have not been employed to improve the practical implementations of IL. On the other words, practicing IL mainly based on IL modules, frameworks or standards which were designed by librarians or professional bodies without consulting the researches' findings which can reduce the effectiveness and increase the ambiguity during the implementation .For example, Andretta (2005) argued that academic institutions in UK face dramatic challenges to implement "learn to learn" concept of IL which was proposed by the Australian and New Zealand Institute of Information Literacy in higher education successfully. She reflected that to the lack of awareness from the educators, students and decision makers to the value of this new concept in empowering students' learning.

Nevertheless, it can be claimed that the dearth of understanding to these participators 'perspectives of IL from the developers' side can cause such challenge. Yet, it is not secret that a gap between IL modules' designers, who are mostly librarians or professional bodies, and researches' findings was flagged up. MacAdam ,(2000) stated that " *librarians have probably never been in a stronger position as a profession to engage in the research necessary to meaningful solution*" (P.77) .IL modules, thus, should be designed to meet the users' needs and to reflect their perspectives rather than meeting the designers' wishes based on the fact that learning is "a *qualitative change in a person's way of seeing, experiencing, understanding, conceptualising something in the real world – rather than a change in the amount of knowledge which someone possesses* "(Bruce, 1997, p. 60).

To sum up, studying IL literature which has been written in English leads to the fact that, although many research studies and considerable efforts have been spent to understand the emergent concepts of IL , a gap is still there and it is with the understanding to the concept itself. Audunson and Nordile (2003), Hepworth (2000a) Bawden (2001), Muri and Oppenheim(2001) Webber, Johnston (2005) Savolainen(2002) and Virkus(2003) agreed that understanding the concpetions of IL is generally related to the way in which the concepts of skills and competence are defined and perceived.

Accordingly, the concept of competencies has a different aspects and its relationship to the identifiable skills and to the pattern of behaviour is vague. Savolainen (2002) added that there are a few other concepts which are belonging closely to the same family of concepts: 'ability', 'capacity', 'expertise' and 'know-how' and it can be difficult to find out whether these form a conceptual hierarchy or whether they inhabit at the same level of commonality. He saw that IL could be an 'information related competency ' which is fundamental to deal with ICT technologies (Savolainen, 2002). Boekhorst (2003) summarized all established IL definitions and perspectives in three concepts 1) ICT concept refers to skills to use ICT to retrieve and distribute information 2) the information resource concept which required adopting specific skills to find and use information and 3) the information process concept which required adopting specific skills to recognize information needs, retrieve, evaluate, use and distribute information (Boekhorst, 2003).

2.2.2.2 The concept of information literacy in the higher education context in non English speaking countries

The term IL is generally perceived in most of the European countries as a set of competencies necessary for 21ˢᵗ century citizens. For example in Denmark the term *informations kompetence*, in Finland *informaatiokompetenssi* (also *informaatiolukutaito*), in Germany *information kompetenz*, in Norway *informasjonskompetanse* and in Sweden *informationskompetens* have been used to reflect IL (Virkus, 2003).

Although variations in the conceptions of IL were addressed across Europe, similar challenges were considered by a few considerable researchers. Thirion and Pochet (2003) argued that IL concept in Belgium was influenced by the teachers and political decision makers who were incapable to conceive the actual meaning of information and related concepts. They stated "*they [the teachers and political decision makers] fail to take into account the pressing need for better conceptual understanding of information, the relation among concepts that structure that information and the ability to criticise that information*" (P.23).

 Homann (2003) saw that the concepts of IL in Germany were modularised by a lot of universities and academic libraries; he suggested establishing a national framework that meet the Germany's needs. Basili (2003) mentioned that the concept in Italy "*falls into the information science dominion* "(P.185). She argued that the dearth of awareness about the need to widespread information culture in Europe is a great challenge to the IL movement. In the Portugal context, IL was conceptualized as set of skills which are necessary to participate effectively in knowledge society and to introduce ordinary citizens to the new directions of the information society. This indicates that, much attention will be paid to media literacy, rather than any other Literacy (Webber, 2010). In Sweden, the concept was introduced in the library of the students' documents in (1996) as a set of abilities to search, critically evaluate, and use information creatively (Tovote, 2003).

In China, the National Conference on IL (2002) was the gate through which China evolved to introduce IL in higher education to Chinese students. Rader (2003) stated that China has many concerns and issues which are very likely to be faced by academic librarian in the United State. According to Rader, China adopted the same USA's perspective to integrate IL with higher education that is by librarians from Tshinghua University translating the *Information Literacy Competency Standard* (ACRL) into Chinese (Reader , 2003). Aalst et

al (2007) liberated the meanings of IL and stressed that IL is the main core of lifelong learning and vital to enhance the governmental learning to learn strategy. Furthermore, they suggested that the concept of IL in the Chinese context, need to be extended to include epistemological understanding of information which will help all teachers and students understand the meanings and concepts of IL.

Although a rich literature has been written about the current conceptions of IL in China, communicating with this literature is still a challenge because most of it is published in Chinese. The researcher attempted to bridge part of this limitation by translating a few considerable research papers to enhance the understanding toward the concepts of IL in China. She found that, although IL conceptualized in a few occasions as a set of abilities to search, find, select, and use available information resources ethically (Pengfei and Maosheng, 2009), media literacy and computer or technology literacy have dominated most of the published studies (Changping , 2009). Pengfei and Maosheng (2009) argued that the concept of information would be imperfect for the Chinese students if it did not encompass the abilities to understand and communicate English fluently. They added that students need to learn English to be able to access evaluate and use valuable information resources which are written in English to be able to compete in the 21st century.

In the Japanese context, Muir et al (2001) found that the Japanese Ministry of Education (JMoD) conceptualized IL as a set of abilities to : 1) evaluate, select, organize and process information and use all the above as a tool to create a new knowledge and communicate 2) realize and understand of information society aspects and its impact and efforts over community and humankind 3) understand the responsibility for information and 4) learning the basis of information derives and information science especially computer. (Muir et al, 2001). Takenouchi (2004) argued that the concept of IL is the core of Information Education in Japan. He focuses mainly on two areas: IL and information processing Engineer. Toshihiko (2009) in his book *considering what information literacy is* which was published in Japanese emphasized that IL education should aim not only to enhance individuals ' abilities to use Internet and computer effectively but also use all available media mass efficiently.

By comparing these views, a few facts could be illustrated as following: 1) IL conceptions in both countries, Japan and China, was perceived mainly as sets of abilities to use computer, other available media mass and technology tools effectively 2) unlike Japanese researchers,

Chinese experts emphasized that English skills must be acknowledged in China as a main part of IL programmes. Japan's experts appreciated IL as a holistic approach to educate individuals able to contribute to information society.

In the Arabic region, the concept has been introduced and understood in different ways and disagreement over the aspects and meanings of the concept is recorded. According to Al-Nakiep (2008) however, the concept was used by many scholars to reflect information searching skills, information technology skills and research skills, lack of awareness to what skills should be included is addressed. Translating the term from English to Arabic has made the situation worse because the translation has been made literally from English into Arabic without considering the linguistic differences which increased the ambiguities around the term. In addition, different translations to the term were provided and used by different professional organizations across the Arabic region. For example, in Egypt the concept of IL has been translated as" informatics knowledge" not as "information literacy" and it aimed to reflect individual's ability to understand the latest concepts, theories, methods and techniques of teaching and learning practice in area of information. According to this concept the information literate person must be dedicated, thorough, and practically trained on how to employ the latest information technology applications in the expansion of IL among the general public and research. He must possess the ability to discuss and exchange information and experiences and review of successful experiences (Bibliotheca Alexandrina, 2008). On the other hand, in Arabic Golf countries such as United Arab Emirates (UAE), the term was translated into" media literacy " and "technology literacy" which mainly reflected students' abilities to use information technology tools effectively (Birks, 2007). In Syria, the concept was introduced by Bakleh for the first time in (2009) to the Masters students at Damascus University, Library and Information Science Department and perceived as a set of information skills essential to search, find, evaluate and analyse information effectively in an ethical manner.

It is not secret that academic organizations in Arabic countries face dramatic challenges with implementing and developing IL. These dramatic problems are related to seven foremost issues and Ashoor (2007) addressed three: as traditional education systems, the low literacy rate, the low level of publishing. The researcher adds few more a: as lack of copyright law to protect the creativity and publishing, lack of awareness to the value of IL to improve societies, dearth of the studies which address the actual conceptions and needs of IL and lack of Arabic

strategic plans to create a national IL thesaurus or dictionaries to combine all the established terms and translations.

To sum up, although the concept of IL has received a considerable attention since its emergence worldwide in the high education organizations including universities and libraries, extensive efforts are still required to demonstrate the needs for IL as one of the uphill priorities for decision makers and funders who choose every time to struggle financially to cut the required fund to support students' IL. This is not only true in non English speaking countries but also everywhere else worldwide. The best evidence could be President Obama's proposal to cut the financial year (2011) budget, eliminating "*the Improving Literacy for School Libraries grant program, designed to boost academic achievement by providing students with access to up-to-date school library materials*" (Whelan,2010). The future works requires collaborative efforts from all people involved in the concept movement cycle. Librarians, teachers and models' designers should study carefully user's conceptions of IL to be able to design programmes that meet their needs also to help UNESCO developing a holistic IL programme for all (UNESCO, 2007). More translation services must be provided by professional organizations to allow experts and professionals to communicate the conceptions worldwide openly and freely which will influence positively on the movement of IL.

2.2.2.2 The concept of information literacy in the school context in English speaking countries

This section addresses IL conceptions introduced in the school sector in English speaking countries. Unlike the previous section, the researcher divided this section into a few subdivisions which separately discuss the variation in the conceptions of IL introduced in each English speaking country to help the readers differentiate clearly various conceptions. Furthermore, the researcher wanted to pay more attention to the conceptions introduced in the schools to serve the aim of this study. The researcher started her discussion with the American conceptions because the movement of the term started mainly from USA then disseminated to other English speaking countries such as UK including Wales, Scotland and Ireland and then Canada and Australia worldwide to China, Singapore, Japan , Latin America and Arabic countries. Latin numbers have been used to simplify the process of reading.

I.   American conceptions of information literacy

As accordance to previous discussion, the concept of IL was mainly established to help students in the schools benefit from available information resources. Peterson, 2001; Rader, 1991; Snavely and Cooper, 1997a; Bruce, 2000; Seaman, 2001 argued that the movement of IL started in early 1983; it was a result of the development of other concepts such us library instruction and libraries use instruction.

The concept of library instruction as Peterson (2001) claimed inherited mainly from the Anglo American librarianship which used the term to name the activity of teaching library use. The concept dominated until 1988, and then it changed to bibliographic instruction. He added that, on the other hand, the library use instruction term was used by Library and Information Science abstracts (LISA) from 1970 to 1992 then in 1993 the concept changed to two headings: IL and user training. Thus, the concept, as can be seen, introduced as a set of essential skills that is necessary to use the school library effectively; in its core it is not more than teaching pupils the basic skills to find information in the library resources.

The National Commission on libraries and Information Science (NCLIS) (1981) in response to *A National Risk* conceptualized IL as a main and significant objective of education; a student needs to consider required information, locate and organize it, then communicate it effectively in considerable manner (Drake,2003). *Information Power: Guidelines for School Library Media Programs*, which was published 1988 by The American Association of School

Librarians and the Association for Educational Communications and Technology, conceptualized the new role of library media program as to support all students and staff information needs and to assure that they are confident enough in using and communicating information. That statement was bonded by American Library Association (ALA) 1989, which saw that information literate is "*a person [who]must recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information*" (ALA, 1989). This document allowed discussions and arguments to be raised about IL in both school and academic libraries worldwide. After the announcement of this document, Patricia Breivik, the chair of the committee announced the establishment of National Forum for Information Literacy whose aim was to popularize the need for IL across many organizations and disciplines (Loertscher and Woolls, 1997)

Kuhlthau, (1993) introduced IL in the term of search ability context. She stated that "*the most important aspect of IL is an understanding of the amount of time and work involved in information seeking and use*" (Kuhlthau, 1993.P:18). This concept was a totally new trend because it moved beyond the critical thinking and solving problem concepts which dominated the literature (Woolls, 1991, King, 1991, Herring 1996). According to Kuhlthau, IL is not only a set of required skills to illustrate, evaluate, compare and communicate information, but also it is identifying and appreciating both milestone search strategic approaches during the seeking information process and required time to achieve the process. In another word, it helps students identify and draw an appreciated search strategy which enable them accomplish their information needs and meet the deadlines. In this case, it becomes essential to meet educationist's academic mission and first step for lifelong learning (Kuhlthau, 1993). Accordingly, Kuhlthau (1994) as a result of many studies were able to establish the Information Search Process Model (ISP) (figure 3) which was divided into seven stages; within each stage is a task, thoughts, feelings, actions, and strategies.

Tasks	Initiation	Selection	Exploration	Formulation	Collection	Presentation
Feelings (affective)	Uncertainty	Optimism	Confusion/ frustration/doubt	Clarity	Sense of direction/ confidence	Satisfaction or disappointment
Thoughts (cognitive)	vague ....→			focused ....→		
					increased interest	
Actions (physical)	seeking relevant information, exploring ....→			seeking pertinent information, documenting		

Figure 3: Kuhlthau's model of the information search process.

Source: (Kuhlthau, 2004: P. 82)

As can be seen, Kuhlthau acknowledged the role of feeling and emotions in each student's journey of search process. She argued that, although students often start a project with enthusiasm and initial success, as they progress, the feeling of confusion and uncertainty will dominate. Kuhlthau categorized that students' feelings as they proceed through the stages including uncertainty, optimism, confusion, frustration, doubt, clarity, sense of direction, confidence, relief, and satisfaction or dissatisfaction. Their thoughts go from ambiguity to specificity and their interest increases. Their actions move from seeking relevant information to seeking pertinent information.

Big six is another well known model established by Eisenberg and Berkowitz (1987) (figure 4). Although the model conceptualized IL as an essential skill to solve problems; much emphasis on computer literacy was given. Furthermore, the model's designers (1996) in their book *Helping with Homework: A Parent's Guide to Information Problem-Solving* claimed that Big six could be applied in nursery school through twelfth-grade curricula. Furthermore, it has a great opportunity to help both parents and pupils in writing their homework, but, their explanation always reflected how technology can help in finding and using information, and gives tips for assisting with assignments in a wide variety of common homework subjects. They saw (2007) that Big6 *as an information and technology literacy model and curriculum, implemented in thousands of schools – K through higher education. Some people call the*

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Big6 an information problem-solving strategy because with the Big6, students are able to handle any problem, assignment, decision or task" (Eisenberg, 2007, Big6 official website).
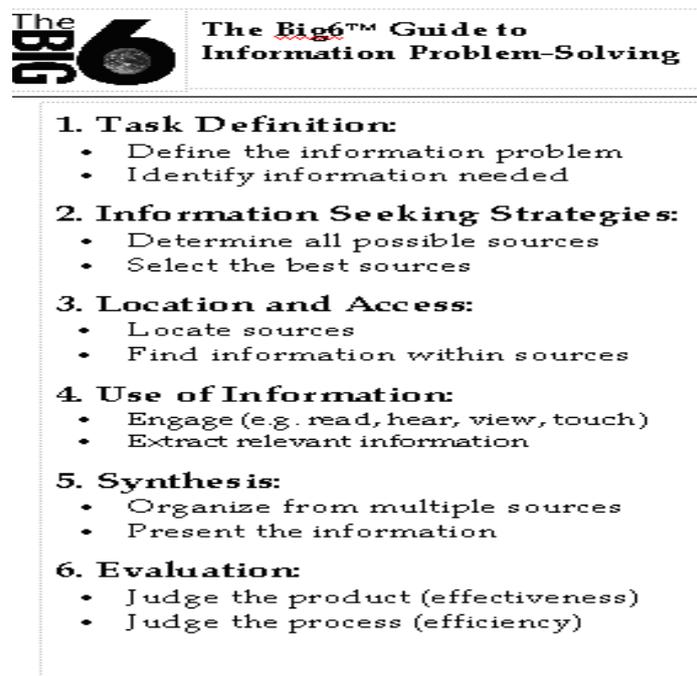
Figure 4: Big six stages

Source: (Eisenberg and Johnson, 1988)

Accordingly, IL in USA mainly illuminated from the school library to conceptualize student's ability to use available information resources effectively in the school library to enhance their learning abilities and to enable them create new knowledge. The new technology revaluation has changed the direction of the produced conceptions; the ability to use the computer and Internet effectively to search and use information become a key to educate an information literate person. As the complicity of Internet in students' learning increased, understanding the emotion and feeling of the web browsers became fundamental because their behaviour and attitudes have a main role in their learning which will influence in different ways their IL level. It can be seen that the concept has been evolved rather than changed; the root of the concept has been used by the experts to improve and extend the meaning of the conception which emerged rather than create a new conception. So the assumption that the conception of IL has changed as the concept grows could be questioned; empirical studies, thereby, should be conducted to investigate to what extent that would be fact.

II.   Britain conceptions of information literacy

The emergence of IL in Britain as Virkus (2003) argued went back to 1980s; she stated that the term was understood in two different ways: the instrumental way which focused on involving and evolving library use and the cognitive way which focused on advancing research skills. She added that, the main confusion with the concept goes back to the fact that both skills and literacy concepts meant to many people the same because they were described as synonyms (Virkus, 3002).

Herring (1996, 1999 and 2003) introduced IL to school as information skills which are vital to use the Internet to find, search, select and use information effectively to accomplish academic goals. Accordingly, Herring (2002) designed PLUS model which includes four stages:

Purpose: to appreciate the purpose of an assignment

Location: to find relevant information sources related to the purpose

Use: to Select relevant and reject irrelevant information and ideas. Pupils should be able to read for information, make notes present their work.

Self-evaluation: to be able to evaluate their performance in applying information skills to the assignment and what they have learned for the future. As it can be seen, the model was designed to put the pupils on the accurate track to accomplish the learning targets sited by educationists earlier. Just like Big six, PLUS model designed by educationists to meet the general and official mode of IL without real appreciations to students' perspectives of learning and IL.

It is significant to state that official organizations in England such as School library Association (SLA) branches conceptualized IL differently. For example, while North East England Branch understood IL as learning how to learn, the Yorkshire and Humberside Branch presented IL as sets of skills required to establish a successful searching strategies and to search available information resources effectively (School Library Association ,2006; Tarter, 2006). Dubber (2007), who is one of the key trainers for IL programmes in SLA, conceptualized information IL as good thinking skills including information processing skills, enquiry skills, creative thinking and evaluation skills; it is a solving problem and information Mastering skills. In some cases IL has been seen as a solution to solve plagiarism problems

because it increases the teachers and pupils' awareness to what plagiarism means in the digital age (Eduserv Information Literacy Initiative, 2009).

Despite the fact that hard efforts have been afforded to implement IL successfully in Britain's schools, studying the established conceptions of IL especially those reflecting pupils' perspectives of IL become vital. It has been observed that IL modules and model that addressed educationists' perspectives of IL did not work effectively and the result was "*The quality of pupils' information literacy skills was sometimes poor and many pupils struggled to locate and make use of information*" (the Office for Standards in Education (Ofsted), 2004). Hence, there is a need to understand and study the current conceptions of IL embedded in schools and implied in pupils, teachers, librarians and head's minds.

III.   Scottish conceptions of information literacy

In Scotland IL is conceptualized as a set of skills and competencies fundamental for education and learning. Irving and Crawford in (2007) published *A National Information Literacy Framework for Scotland* which introduces the expected level of IL skills students must achieve in each level
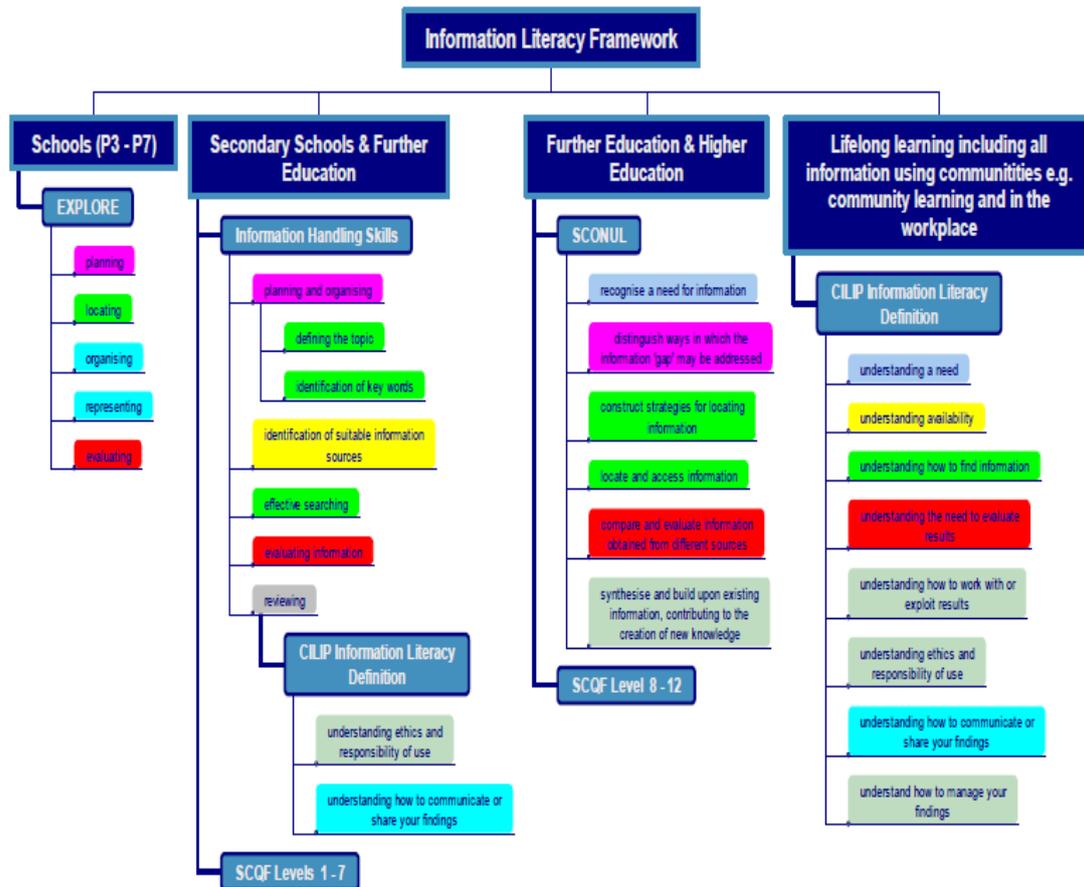
Figure 5: Scottish Information Literacy Framework

Source: (Irving and Crawford, 2007)

As the above figure shows, in each level Irving and Crawford adopted different concepts of IL that fit with the nature of learning tasks and expecting outcomes. The most recent work in Scotland and Wales (2010) presents IL as the core of lifelong learning national agenda which must be, in turn, a holistic approach introduced to students from primary school level to higher education including colleges and schools (National Information Literacy Framework Scotland,2010).

Similar studies in Britain were conducted and gave the disciplinary focus more acknowledgement; Webber et al (2005) and Wu and Kendall (2006) saw that IL as a

phenomenon must be conceptualized in the context of people's understanding to information and skills including internal and external factors. A lack of understanding to disciplinary needs of the concept led in many cases to a failure from teachers or librarians sides in transferring the concept. This issue was the core of several studies; Merchant and Hepworth (2002) conducted a study to observe the pupils and teachers level of IL in two schools. Their study showed evidence that teachers were information literate; but, they were unable to transfer this capability to their students so they became information literate. The pupils themselves possessed some skills at locating information, but were not so adept at evaluating and using the information.

This can be a result of lack of understanding of the concept of IL from the student's side or it can be claimed that the teachers suffered from lack of ability to transfer their students to be information literate. This is because they understood the concept as teaching rather than learning and transferring. Williams and Wavell (2007) emphasised the need for supportive environment and educational strategies to allow teachers and librarians to embed IL effectively in schools to support education and learning. They stated that "*The results ...indicate that teachers understood information literacy to be important for lifelong learning but do not feel able to effectively support the development of information literacy in their students within their current curriculum environments*" (P.1). Furthermore, they added that teachers and librarians need to work collaboratively to enable IL. Thus, a need to understand the tacit meanings of IL embedded in schools intellectual capitals then create the whole image of IL that meet the context's need is focal to assure successful implementation of IL.

IV.   Australasian and Canadian conceptions of information literacy

Although Canadian libraries in all its types have showed increased interests of introducing IL; it has been a challenge to understand how IL has been conceptualized. Sloniowski et al (2005) in their Blog argued that IL in Canada was seen as a part of demand for library instruction in Canadian libraries. Whitehead and Quinlan (2002) saw IL as useful skills to help students identify required information resources, hence; it must be a part from the Canadian innovation strategy. They emphasised the fact that IL should be understood as a need so it must be treated as *a part of the curriculum not simply part of the library* (P.23). The Canadian School Library Association (CSLA) (2007) saw that IL is a need to educate information literate students who are *able to think rationally and logically*. Thereby, IL

understood as an ability to solve problems and develop knowledge by using different information strategies to locate, assess and use information resources and information technology tools to access, search and publish information with high considerations to information value and information authorities.

It was claimed that CSLA honoured the teacher-librarians with the main role to promote and advocate IL into the schools, thereby; much attention was paid to the quality, skills and qualifications of the teacher-librarians who must *be a highly skilled teacher, with competencies provided by a combination of teacher education, classroom experience and courses in teacher-librarianship and information studies. The teacher-librarian should be in the forefront of curriculum and staff development, familiar with the full range of instructional strategies and learning styles, able to organize time and resources, and active in professional concerns within the school and the district".* The competent teacher –librarian according to CSLA has two levels of competencies; professional and personal (figure 6)

Professional competencies	Personal competencies
Places a priority on staff relationships and leadership in the implementation of change	Committed to program excellence.
Provides leadership in collaborative program planning and teaching to ensure both physical and intellectual access to information and commitment to voluntary reading.	seeks out challenges and sees new opportunities both inside and outside the library
Knows curriculum programs mandated by the province, district and school.	Sees the big picture.
Understands students and their social, emotional, and intellectual needs.	looks for partnerships and alliances
Has expert knowledge in evaluating learning resources in different formats and media, both on-site and remote, to support the instructional program.	Creates an environment of mutual respect and trust.
Develops and promotes the effective use of informational and imaginative resources in all formats through cooperative professional activities.	Has effective communications skills
Provides appropriate information, resources or instruction to satisfy the needs of individuals and groups.	Works well with others in a team.
Uses appropriate information technology to acquire, organize and disseminate information.	Provides leadership.
Manages library programs, services and staff to support the stated educational goals of the school.	Plans, prioritizes and focuses on what is critical.
Evaluates program and services.	Committed to lifelong learning.
	Flexible and positive in a time of continuing change.

Figure 6: Canadian Teacher –Librarian competencies

Source: (CSLA, 2007)

As can be seen, CSLA provided a greater picture to the teacher librarians who are more than school librarians; they are managers, academic staff, change promoters, social supporter and information specialist. This new list of competencies stressed that the traditional concept of school librarians limited the value of IL, thereby; new conceptions of school librarians must be introduced to help the movement of IL.

In Australia, considerable efforts have been spent to conceptualize IL in schools. Doyle (1992) conceptualized IL as the *ability to access, evaluate, and use information from a verity of resource* "(Doyle, 1992). She formalized this concept after her own consultation among scholars by using Delphi technique. Bruce, who conducted phenomenographic, studies to investigate students and teachers varying conceptions of IL, argued (2003) that the most

notable study for the period of 1990s was Doyle's work because it was able to show the geographical movement of IL.

The Australian and New Zealand IL framework which was published in its second edition in (2004) introduced IL in a broader context of generic skills whereas IL is the core of it. The report claimed that IL, thought, different term, was mainly introduced in Australia by Ernest Roe who stated that "*In general, 'promoting the efficient use' of resources has been nobody's business. Even where there has been active concern, significant gaps persist. A teacher may urge his students to use the library resources, provide book lists; set work which effectively directs them to the library, but takes no interest in how they use the resources he is so keen for them to use, or in whether they have the necessary skills to do so…A librarian may be actively involved in helping, in actually training, users to be skilful in search strategies, be most eager that the resources are in every sense accessible to students; but regard what students do with the 'right' book when they have located it as none of their business* (cited in the Australian and New Zealand Framework,2004. p1*)*. Bruce and Candy (2000) and Candy et al (1994) conceptualized IL as a key attribute of the lifelong learners, thereby, it involves also interpersonal and communication skills (Figure 7).
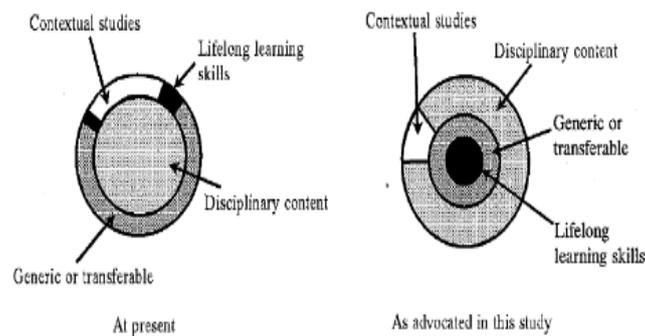
Figure 7: Lifelong learning as it was seen by Candy et al

Source: (Candy et al, 1994 : P.66)

It has been observed that the concept of IL has been introduced as a part, or may be a core of life learning based on two different contexts. The first one introduced by the UNESCO (1970) as a liberation, culture and personal growth; in this context IL has been introduced as a set of skills required to educate an effective citizen (more discussion is developed in the next section). The second one was introduced by the Organisation for Economic Co-operation and

Development (OECD) as significant economy competitiveness skills required lifelong learning educational strategies. In this context IL understood as a set of skills required for every individual to be able to globally compete (cited in Webber and Johnston, 2008).

To sum up, the American librarianship literature claimed that the emergence of the term IL started from the American or Anglo American schools in 1983 as Peterson (2001) claimed; and it was the result of the development of library and library use instruction. The British literature stressed that the term's development started from Britain in 1980. Despite these disagreements, considerable efforts were provided by many scholars in both countries to help librarians teach IL and develop their students' abilities and skills to use information and its technologies effectively to meet their information needs. Moreover, although PLUS and BIG SIX are the most common models which have been used by school librarians to teach IL, the information search model provided a different level of understanding to IL as it acknowledged the role of feeling and emotions in each student's journey of the search process. In Scotland a significant work by Irving and Crawford (2007) to establish an IL framework that meets the Scottish students' information needs was provided. The framework reflected the scholars' understanding to the meaning of IL as a holistic approach to support lifelong learning approaches. Unlike Britain, USA and Scotland, CSLA in Candia (Canada?) paid a special attention to the role of teacher-librarians in developing and teaching IL effectively. That he/she must be managers, academic staff, change promoters and social supporters.   In Austria and New Zealand IL was conceptualized as the core of the generic skills, hence; it is a key attribute of the lifelong learners which involves interpersonal and communication skills. In the later section, a discussion on the concepts of IL outside English speaking countries will be provided in the later section.

2.2.2.3. The concept of Information literacy in the school context in non English speaking countries

In accordance to previous discussion, the movement of IL in most of non English countries began, unlike English speaking countries, mainly from higher education institutions. This can be a result of the level of cooperation and communication between English and non English academic institutions which seemed to be greater in universities than in the schools. Furthermore, a dearth of the English published literature, which studied or discussed IL

conceptions in non English countries, is recorded; thus, selective samples from the English written literature were selected to be discussed in the following sections.

Hepworth (2000a) mentioned that in Singapore the concept was introduced in school libraries as information skills. His evidence based on the fact that in 1987, a library instruction pilot study was undertaken in seven secondary schools which participated on information skills. That study led to the publication of an information skills package by the Ministry of Education in (1989). The package of two information skills books BLACK for secondary and Orange for primary schools was published in (1991) as part of an overall library instruction program. In (1998) the concept was shifted by the governmental efforts to become a part of the lifelong learning skills programme which included alongside library skills, critical skills and ICT skills .Connectedly, the Ministry of Education developed some guidelines for IL and considered the ability to "*seek process and apply knowledge* "as an outcome of the Singaporean education system.

In China, there is dearth in the English written literature which studied or examined the concept. Sun and Liu conducted a study in (2009) to examine the value of IL for science teachers. It has been observed that Liu and Sun found that information science information literate teachers must 1) have considerable awareness of information resources 2) able to decide the extent of information needed in science education3) able to access the needed information effectively 4) able to critically evaluate information and related resources, and 5) able to understand selected information and use information effectively, ethically and legally to accomplish instruction purpose. In a few other individual works IL is conceptualized as research skills (Hutchinson, 2009), learning how to learn and project-based Learning (Aalst, Hing, May and Yan, 2007)

In the Arabic region, IL was introduced only in non Arabic schools which were established by embassies to serve its followers; hence the concept understood in each school as it was conceptualised by the sponsored country (Lasher, 2002). There is a dearth in the Arabic literature which discusses the conceptions or studies the needs of IL. This is the first and the only research introducing the concept of IL in Arabic schools and discovers the librarians' perspectives and variation of IL considering the research which was conducted by Lasher (2002) that aimed to test the effect of cultural relevance on instruction for IL for Kuwaiti students with an experiment of comparative instruction. The researcher designed a control

group which received Western-oriented instruction for IL and another experimental group which received instruction that substituted Kuwaiti cultural referents for some of the Western-oriented referents. IL concept introduced as the Big Six^{TM} information problem solving strategy understood it. The only differences in instruction between groups were the images in the Big Six^{TM} transparencies used for overhead projection, the examples used in class to discuss various information problems and the corresponding images that represented the examples. Thus, the study focused on students rather than teachers or librarians.

2.2.3. Information literacy in the academic context; social focus

In reference to previous discussion IL as concept was mainly introduced to serve the academic and educational' needs to educate the information literate person who has skills to:

- Recognize a need for information.
- Consider the information gaps.
- Locate and access information.
- Compare and evaluate information gained from different resources.
- Organize, apply and communicate information.
- Use the acquired information to build a new knowledge (Society of College, National and University Libraries, SCONUL, 1999).

However, that was not the only focus for group of scholars who argued that IL is not only concept which is valid for academic initiations but also is valid for life. In (1981), Carroll introduced IL as a set of ideas and facts that individuals need for life. Accordingly, it is more than ideas, skills and facts; it is a need to enrich one's work, pleasure and personal life (Cited in Taylor, 2005). Lenox and Walker (1993) personalized the concept of IL; they understood it as a personal ability to access and understand a variety of information sources. Loertscher and Woolls (1996) extended the meaning of the concept and combined it to the innovation and creativity. Furthermore, they saw the information literate as a person with a high sense of creativity to learn, communicate, think, investigate and use technology and information. Following her research (1992) Doyle (1994) developed a set of categories for IL and integrated the ALA's (1989) analysis of the concept to define IL as the "*ability to access, evaluate, and use information from a variety of resources, to recognise when information is needed, and to know how to learn*." While, Doyle defined IL in terms of attributes of a person,

Bruce in her seven faces of IL identified seven categories of IL which gave a specific consideration to the personal focus:

- First concept: the information technology – IL was understood as using information technology tools to retrieve and communicate information
- Second concept: the information source – IL was understood as finding information from provided information sources
- Third concept: the information process – IL was understood as accomplishing process
- Fourth concept: the information control – IL was understood as controlling information
- Fifth concept: the knowledge construction – IL was understood as building up the base of a personal knowledge in a new area of interest
- Sixth concept: the knowledge extension – IL was understood as creating a new vision by working with adopted new knowledge and perspectives
- Seventh concept: the wisdom – IL was understood as using information wisely for the benefit of others

Bruce's study demonstrated two main issues 1) people with similar background (in Bruce case higher educators) can perceive and understand the same phenomenon differentially and in various ways 2) IL in academic institutions is not only perceived as using information to achieve academic goals but also IL is the core to develop people's personalities and perspectives further to promote change to other people's lives by using information wisely. Shapiro and Hughes (1996) introduced IL as a liberal art and enabler for inspiration and liberty. They emphasised the need for IL curriculum in schools to improve and enhance the sense of democracy which will pave the way toward democratic education which would enhance in turn political freedom and people's happiness and satisfaction. Consequently, in Japan in (2002) IL activities were used in the library to improve the students' ability to vote by searching for the accurate information; the researcher concluded that IL enables pupils to live as responsible citizens (Masuda, 2002).

Webber and Johnston (2003) in their definition of IL altered the concept of IL to users' personal information behaviour and their capacity to use information wisely to serve their societies as follows: "*information literacy means the adoption of appreciate information behavior to identify whatever channel or medium, information well fitted to information*

needs leading to wise and ethical use of information in society" (Webber and Johnston, 2003:). In their later research (2005) Webber and her colleagues studied the differences in the ways in which educators in different academic disciplines conceived the phenomenon of IL. Their findings demonstrated that, while the marketing educators mainly focused on the need for a real world information and source to solve problems and create confidant experts, English educators focused on the need for text, books and library skills to achieve" *personal development as a critical being, in the academic world, or in the social context"* (Webber, Johnston and Boston 2005).

In the same year the High Level Colloquium on Information Literacy and Lifelong Learning was held at the Bibliotheca Alexandrina in Alexandria, Egypt emphasised the need for IL to empower people through their life to seek, evaluate, use and create information effectively to achieve their personal, social, occupational and educational goals. It is, therefore, a basic human right in a digital world and promotes social inclusion of all nations. As can be seen this declaration could be inspiration for many nations which are willing development and change (Garner, D, 2005).

The idea of IL appeared to be more critical in less developed countries where social sustainability suffers from deterioration. For example, Dudziak (2007) argued that in Latin American the concept of IL challenged government and decision makers and stressed on the role of school librarians in publicizing it. She stated "*social impact of information literacy seems to be the major issue in Latin America and the librarians' social responsibility has been an emergent topic" (*Dudziak, 2007:45).

Dudziak, (2007), also, combined IL with lifelong learning as a liberating term. She was able to sense the internal relationship between building effective society and being a lifelong learner. IL accordingly is a main key to develop independent learners. As students in an academic environment should be encouraged to go beyond reading lists and recommended texts to discover and exploit information on their own which help in fostering independent learning and prepare students for lifelong learning. They should also be trained to be critical and independent thinkers who are able to transfer those abilities beyond the classroom, into the workplace and everyday life. Bundy (2004) formulated the relationship between information literacy and lifelong learning in a shaped diagram (figure8)
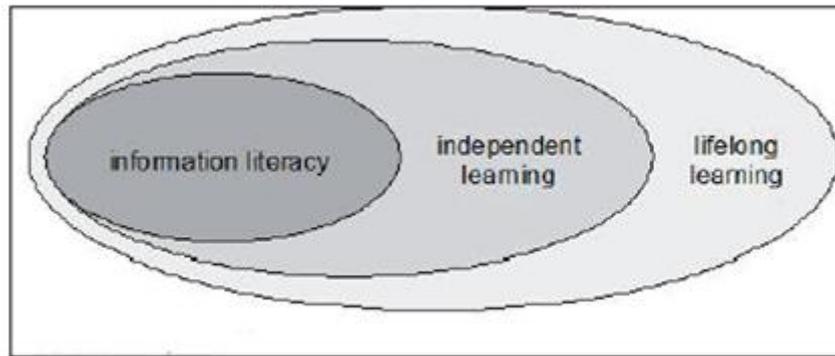
Figure 8: Information literacy as a Formative Element of Independent Learning

Source: (Bundy, 2004:P.5)

As can be seen in the above figure, the relationship between IL and lifelong learning as Bundy introduced is a liner relationship started with information literate and ended by lifelong learner. Nevertheless such relation cannot reflect the main aim of IL. In this the researcher thinks that IL should not be understood as a stage which the learners need to pass to become lifelong learner rather it is the core of lifelong learning. Thus, learners need to be information literate to be lifelong learners. It is the link that combined between independent learning in early stages of life and lifelong learning during all life (figure 9).
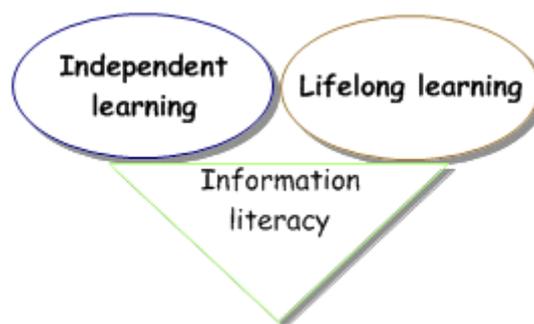
Figure 9: The relationship between independent learning, lifelong learning and information literacy

Moreover, although IL is the core and basic for lifelong learning, learners need to have specific sets of attributes which shifted learners to become lifelong learners; those attributes vary from person to person and from context to context (Candy et al 1994). Adams (2007) in a study of the perspectives of Australian secondary school teachers about the skills and the attributes of lifelong learners found that the key is to be engaged in teaching learners which is influenced by seven factors which could influence each other (figure 10).

Figure 10: Conceptual model of lifelong learning skills and attributes

Source: (Adams, 2007)

Abid (2004), who was a senior programme specialist of the Information Society Division, stated that "*Information literacy forms the basis for lifelong learning. It is common to all disciplines, to all learning environments and to all levels of education, while recognizing the disparities in learning styles and in the nature and development of literacy in different countries.*"

To sum up, IL as many scholars stressed, is an essential for lifelong learning. Therefore, there is a need to consider and acknowledge the difference in the learning styles as well as the level of literacy in each country. Thus, what is valid in UK, USA, Australia and Canada might be not valid Syria because the social needs, educational needs and level of literacy are different. Furthermore, the ways in which the educationists including school librarians conceive the phenomenon of IL should be different because their personal, practical and educational backgrounds are different. Hence, the need to understand the Syrian people's educational, social and practical backgrounds is vital to implement effective IL. Understanding and discovering all conceptions of IL which are embedded in the Syrian context, is beyond the scope of one PhD. Hence, the focus of this PhD will be on investigating the variations and changes in a group of school librarians' conceptions of IL. To help in formulating a clear image about the Syrian school librarians' educational, social and practical backgrounds, the following section was produced.

2.3. Syrian school librarians' educational, social and practical backgrounds

2.3.1. Introduction

This section aims to provide useful and rich information about the Syrian context. Unlike other phenomenographic studies, the researcher in this section determined to provide a descriptive background to the Syrian context of the study by giving extra details. The decision toward creating this section was made based on the following facts:

- Lack of the literature which provides accurate and up- to- date information about the Syrian school libraries context. This study has the opportunity to fill this gap and to be the fundamental stone for further research studies.
- The influence of the contexts' aspects on the future development and movement of IL in Syria.
- This section is good investment to the value of information collected during the interviews. The participants school librarians provided very useful information relevant to the Syrian school library and librarians but not relevant to IL conceptions. It appears shame to desecrate this information and ignore it as there is no other way to publish it in the near future except this study. The reader will find in this section, thus, a set of information which was referenced back to the school librarians' interviews.

2.3.2. Descriptive background

Syria is an Arabic country which lies near the Mediterranean Sea; it has a wonderful environment especially cities near the Mediterranean Sea. Damascus which is the capital has a long and colourful history that stretches back nearly 12,000 years; it is considered as one of the oldest cities in the world. Since (1979) Damascus has been a UNESCO world Heritage Site (UNESCO, 2010). Syrians used to call Damascus the City of Jasmine because of the huge amount of Jasmine plants which old Damascus city houses used to have (AL-Halboni, 2008, Qabbani, 1995). Due to the increased number of people who immigrate to Damascus from the countryside and other Syrian and Arabic cities this turned the city of Jasmines to the city of crowds. According to the Global Arab Network (GAN), the current number of Syria population is 22 million (2010). This number grows every year in summer between 2 to 3 million due to the pressure of tourism (Syrian Arab News Agency, (SANA), 2009). Furthermore, after the American occupation to Iraq more than 1,000,000 Iraqis immigrated to

Syria; most of them refugees in Damascus and its Suburb. Al-Miqdad (2007) stated that the overcrowding of refugees numbers who lived now in Syria impacted negatively in schools which recorded a steady rise in enrolment. This is hassled to school and classroom overcrowding which has adverse repercussions on equality of access to learning and education and on the health of students and teachers. Inability to absorb more pupils is likely to lead to a rise in school drop-out rates. Accordingly, there is a pressing need to enlarge the existing schools and build about 100 more schools, so that all these students can be assimilated in order to prevent instances of drop-out. The total cost is estimated at approximately $60 million. The same case could be true in Suburb Damascus and other cities.

Suburb Damascus which was a separated part from Damascus becomes now essential part; the governmental document called it the metropolitan area of Damascus. This area includes many cities and small towns; it has two parts surrounded Damascus - east and west. The lack of official population statistics in these cities and towns makes it hard to estimate the population of the wider metropolitan area around Damascus, which are well over 3 million inhabitants (Burns, 2007). The map below (figure11) exhibits Damascus and its Suburbs Damascus (Syrian Ministry of tourism)

Figure 11: A map of Damascus and its Suburb

Source: (Google map justified by the researcher)

2.3.2.1. The school librarian's Educational, practical and social Background

2.3.2.1.1 Introduction

Article 37 of the Syrian Constitution stated that "*a right guaranteed by the state of science for all*" (the Middle East Information Network). Syrian government faces real challenges to assimilate all students in schools and universities, which in turn, causes overcrowding in class where some classrooms would include over 50 students and only one teacher responsible about teaching this huge number of students (Al-Miqdad, 2007). Every year the Ministry of Education publishes an official announcement which stresses the need to register all students who are eligible for admission to public education within a specified period, while the Directorate of Education conducted a numerical adjustment between these schools during the week after the date of registration taking into account the student housing closer to the schools will attend. This in turn helps in reducing the number of illiterate people (the Syrian Ministry of Education, 2010).AL-obaid (2009) stated that the population statistic for 2004 showed that the illiteracy percentage for the population of the 15 years age group decreased from 27.5% by the year 1994 to 19% at social levels. This percentage is different between male and female and between different cities. For example in Al-raqqah city (East Syria) was 38.6% but in Damascus (West Syria and the capital) was 7, 2%.

The education system in Syria has been impacted deeply by the old French system; it is free in all public schools and obligatory up to the ninth grade (age 14-15), Schools are divided into three levels:

1. 1st to 4th grade (age 6-10): Basic Education Level I. Students after the final exams have the choice to study either legitimate –in-house-learning or official –in-school-learning.
2. 5th to 9th grade (age 11-15): Basic Education Level II and 10th to 12th grade .Final exams of the 9th grade are carried out nationally at the same time. The result of these exams determines if the student goes to the "general official" secondary schools or vocational education or the technical secondary schools includes industrial, commercial and women. Industrial and agricultural schools for male students, crafts school for female students and commercial and computer science for both (The Syrian Ministry of Education, 2010).

The Ministry of Education in 2005 established for the first time a new type of schools called Outstanding Students Schools which accept A- level students with the greatest marks; a test is required before the registration for each student. Religious schools are also another type of school which was established in Syria to help students who are willing to study Islamic studies in early ages.

3. Secondary Education which is the equivalent of High School. The final exams of the 12th grade (the baccalaureate) are also carried out nationally and at the same time. The result of these exams determines which university, college and specialization the student goes to. To do that the student has to apply through a complicated system called *Mufadalah* (The Syrian Ministry of Education, 2010)

Private schools in Syria follow the same regulations and obligation as the public, however there is flexibility with curriculum especially with schools supported by foreign embassies such as American school, Pakistani school and UNRWA schools which are established by UNESCO for Palestine refugees. The Ministry of Education, however, must review any school curriculum before application. The table (1) shows the number of level II and high schools in all its types in Damascus and its suburb.

Table 1: The number of schools in levels II and high school in all its types in Damascus and its suburb

Source: The Syrian Ministry of Education documents

City	School level	School type	Number of schools
Damascus	II	Public	122
Damascus	II	Private	13
Damascus	High school	Public (General official)	73
Damascus	High school	Private	27
Damascus	High school	Commercial	15
Damascus	High school	Industrial	19
Damascus	High school	Women	15
Damascus	Religious schools		16
Damascus	UNRWA		46
Damascus	High school	Outstanding pupils schools	1
Suburb Damascus	II	Public	373
Suburb Damascus	II	Private	27
Suburb Damascus	High school	Public	158
Suburb Damascus	High school	Private	11
Suburb Damascus	High school	Commercial	30
Suburb Damascus	High school	Industrial	11
Suburb Damascus	High school	Women	43
Suburb Damascus	High school	Outstanding	1
Suburb Damascus	UNRWA		34
Suburb Damascus	Religious schools		36

2.3.2.1.1 The educational background

Damascus is the main center of education in Syria. It is home to Damascus University, which is the oldest and largest university in Syria alongside four other public universities AL-Bath,

Tishreen, Aleppo and Al-Furat (Ministry of Higher Education, 2010). Library and Information Science Department was established in Damascus University, Faculty of Arts and Humanities in (1984) under the law No. 627 of 2 / 8 / 1983 aiming to educate information and library specialists to supply the library and information societies with the required human resources. The entry requirements in the department lays on students' general secondary school certificate includes two braches (literary and scientific) at a rate ranging between 60-70% depending on the differentiation and assimilation policy pursued. The department offers a bachelors degree in library and information science and the study's' duration is four years divided into eight classes. In (2008) the Master degree was established allowing the students graduated either as a specialist in the library management and library services or a specialist of information systems retrieval and storage. In the same year the University of Tishreen established another department under the same title.

2.3.2.1.2 The practical and social backgrounds

It is important to learn, before going any further, that information used to build-up the discussion in this section came from two different sources; the researcher previous experience within the context and the school librarians who participated in this research. To differentiate between both information sources, a reference was mentioned at the end of each paragraph.

In (2007), the Minister of Education established announcement inviting all graduate students to apply for the position of school librarians. Accordingly, a national exam announced by the Minister and hosted by the Library and Information Science Department. 40 school librarians were selected, from the department committee, based on the exams' results to work in all Syrian cities including Damascus. Although this announcement has become the main part of the Ministry of Education strategy, not all successful librarians have been employed due to lack of available financial support provided by the government (the researcher).

In Damascus and its Suburbs only 18 professional school librarians work in schools from a total of 314 while the rest are class room teachers who were transferred to work in the school library due to health difficulties and some other considerations. The Ministry of Education titled the position of those teachers as non professional school librarians. Furthermore, because the Ministry of Education is ineligible to demobilize any employee without the permission of the pre minister, the ministry has kept non professional school librarians to

work as assistants when another professional school librarian occupied the position which caused conflict on several occasions. The main reasons beyond conflicts are 1) lack of communication between professional and non professional which influenced negatively in the school library services. 2) The head teachers who were not able to play their proposed role in convergence of views on the differences and help in opening communication channels and 3) lack of clear guidance which articulates each one's duties, responsibilities and right (the interviews)

The Ministry of Education has its own school libraries monitoring system, which encompasses a branch in each city, is responsible for:

1) Assuring that the school librarians adopt the Ministry of Education school library strategy.
2) Supplying the school libraries with the (required) materials as it fits with the financial support provided by the Ministry.
3) Communicating with heads and decision makers to discuss outstanding issues.
4) Assuring that the process of selling the text books and transferring the money to the Ministry of Education bank account went successfully.
5) Solve school librarians problems including argument and conflicts with head teacher and assistant who is usually non professional school librarians(the interviews)

It is important to mention that graduated librarians in Syria including school librarians face a few challenges which impact negatively in their self-esteem and their abilities to contribute more effectively to their careers, those challenges could be summarized as follows:

- Lack of recruitment's possibilities in both public and private sectors due to lack of awareness of the value and the significant role which graduated librarians could play to support organizations' operations. This is turn drove many graduated students to accept any available job which impacted negatively on their self -respect on regard to their career also on people's perspective to the value of the qualification
- Lack of respect and understanding from most head teachers to the role of the school librarians; this could be due to two facts 1) the negative old perspective about the school librarian who used to be an irresponsible person with lack of motivation and patience to provide any services. Such people came to the position of school librarian

in one of two ways; either ill class room teacher who has been transferred to the library to rest from class room duties or healthy classroom teacher with the power of nepotism. 2) The current internal law which gives the head teachers the right to ask the school librarians to do any duty in the school such as fill teacher absence and checking students' exams papers. This in turn impacts negatively on librarians self respect and self confidence.

- The Syrian people's culture gives much respect and acknowledgement to scientific professionals such as: doctors, engineers, pharmacists and computer specialists and less respect to other professionals. This in turn impact negatively on the general perspective of the librarians including school librarians.

- The unfair financial laws which give classroom extra compensation and deprives school librarians. This in turn decreases school librarians' job satisfaction which impacts negatively on librarians performance

- Lack of systemic and well established training programmes

- Lack of required financial and logistic supports to enhance the school library role in supporting student's learning.

- The big gap between graduate student's knowledge and workplace needs and expectation.

- The economic challenges which drove many librarians to undertake more than one job to cover their living costs. Most of the time these extra jobs are not related to their careers in any way such as taxi driver, trial, shop assistant and so on (the interviews)

All these challenges have impacted negatively on librarians' professional careers, self respect, self confidence, trust and motivation which influence people's perspectives of the library including school library. In Syria, school librarians could be conceptualized as follow:

1) **A school librarian** provides library services include lending, storing, classifying, cataloguing and selling curriculum text books. In this concept school librarians are well organized , responsible and qualified persons

2) **A supporter for the education process** who provides information services for teachers and students. In this concept school librarians are intelligent, self motivated , knowledgeable, good communicators and skilled persons

3) **An administrative staff** provides administration services including registration, marketing, paper work and hospitality alongside library duties but the priority is for administrative duties. In this concept school librarian mainly cares about satisfying the head teacher.

4) **An irresponsible person** who carries out no duties. In this concept school librarian is lazy, believes in nepotism and is an obsolete person

5) **An incapable person** who provides what he / she can. In this concept the school librarian is a nice and beloved person (the interviews).

Insisting that those concepts have been illustrated from this study's interviews; lead to declare a need to conduct further research studies which discover and study people's concepts of school librarians is significant to enable more comprehensive and deeper understanding. Bearing in mind, that both English and Arabic librarianship literatures have recorded a dearth in the research studies which concerned such concept and related concepts such as a school library. In the later section more discussion about the concept of school library will be provided.

2.3.2.1.3 The social backgrounds

Like the pervious section, the researcher in this section used information mentioned during the interviews, in many occasions, to build up her discussion. The information collected during the interview will be referenced as interview.

Mainly, Arabic literature including Syrian has conceptualized the school library as the location which is usually used to store small or big groups of collections and materials to serve schools' communities or relatively it has been seen as a place in an elementary or secondary public school has the required books and materials to support pupils' learning and teachers duties (Bouktaoi, 2010). This concept's roots go back to Ancient Athens, Syria, Iraq and Palestine. Old civilizations such as Ebla and Mary paid attention to school library and they valued it to the extent that they located school libraries within the kings' palace and were not available to the public (Lerner, 2001). He stated that "*to some extent the palace library at Ebla was a school library. It served as an academy for the training of scribes. But, like modern university, this academy existed to create and preserve knowledge as well as to propagate it* "(Lerner, 2001, P18). Scribe shows that Ugarit alphabet is historically

considered as the most comprehensive Alphabet. It was around 1400 BC; 30 letters, corresponding to sounds, were adapted from cuneiform characters and inscribed on clay tablets (Yon, 2001)

That was all recorded before the appearance of Islam. After Islam, Islamic school libraries in Damascus and Baghdad were very famous especially during the Umayyad Dynasty (Lerner, 2001). He mentioned that when Europe lived in the Dark Age, Arabic and Islamic cities such as Damascus were living their golden age and they have had their school libraries in their palaces to demonstrate the luxury of knowledge (Lerner, 2001). Alzahryya school library, which was established in Damascus in (1276), is considered as one of the most popular school libraries in Sham region which included Syria, Palestine, Lebanon and Jordan. This school library has had a huge number of documents, manuscripts and books written by hand. The Syrian government recently transferred this wealth to AL-Assad National library in Damascus and kept some valuable books at Alzahryya library to become a public library.

Ottoman, French, Italian, English, Israeli and American occupations have caused crises to ancients' libraries and particularly school libraries as they have destroyed their collections: they burned some and transferred others to Europe (Lerner, 2001, Lokman I. Meho, Mona A. Nsouli , 1999). That impacts the concept of school library, to become; limited in many cases to a small cupboard encompasses some old published books located in the head teachers' room to keep the books safe from burglars or bad usage.

According to this study's interviews Syrian school library has been conceptualized by school librarians in many ways those are:

- School library as a place to store the books; it provides lending services and text books selling services.
- School library as a place to support student's learning.
- School library as a place to punish uncommitted students.
- School library as a place to relax and read a book after achieving administrations duties.
- School library as a place to exchange social visits.
- School library as a place to store unwanted materials.
- School library as a part of a science laboratory.

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- School library as few cupboards or shelves of books (interviews)

Both Syrian school libraries as well as Syrian school librarians face critical challenges. Decision makers who are responsible mainly about founding school libraries should pay more attention to school library and establish a fundamental reform policy along the line of the new reform policy which has been established by the Ministry of Education in (2009). The new policy is scheduled to change the education system from depending on rote learning, which undermines the spirit of creativity and initiative, to motivated system that gives schools greater freedom with regard to the contents of teaching materials assessed as it is in European countries such as Germany. The reformed system encourages team work, solving problems, workshops and frameworks. The teachers' role has been shifted from being teacher to being coach. School librarians in this new environment have the golden opportunity to contribute effectively to students' learning. Moreover, school library in this context must be information centre that support creativity rather than book's store. Therefore, this study has great potentials 1) to contribute to current movement in Syria toward empowering the role of education is students' life 2) to demonstrate the possible role of IL in supporting student's learning and 3) to discover how the educationists (school librarians) conceive IL which will help in future implementation . Accordingly, this study is just-on-time study which aims to discover not only the current conceptions of IL but how those conceptions will be changed after attending a systemic training programme.

 In order to achieve this goal the researcher conducted a phenomenographic approach. Chapter three provides comprehensive information about the conducted research approach including rationale which explains phenomenographic approach emergence, selection justifications and the criticism of the approach bearing in mind that this study is the only study in the Arabic literature employing such approach therefore a deep and detailed section was produced to discuss the phenomenographic approach in the Arabic context.

2.4. Conclusion

This chapter discussed different perspectives of IL in different contexts and reflected the different meanings and application of the concept in education settings including higher education institutions and schools. It was argued that IL was reflected in each context in the light of the context's needs. IL should be implemented to meet each context particular needs. This chapter also presented descriptive backgrounds to the Syrian school librarians including

educational, practical and social backgrounds. The following chapter will discuss the methodological approach as well as this study approach.

CHAPTER 3: Methodology

3.1 Introduction

This chapter discusses the research methodology approach, phenomenographic, adopted to answer this study questions. This Swedish approach allows the investigation of various ways in which people experience aspects of their world and it helps in assessing the changes in people's awareness to specific phenomenon. Thus, the main questions for phenomenographic research could be "what are the varying ways in which people conceive, or experience, some aspect of the world around them?

Although Bruce (1999) argued that phenomenography is a relatively new research approach utilised in the library and information studies (LIS) field, over 1000 research studies by 1994 adopted this approach and this number remains in growth (Alexanderson, 1994 cited in Sandberg, 1997).

Noticeably, the researcher in the previous chapter discussed in detail the procedures she applied to collect the relevant literature review including the literature review for this chapter. However it is significant to insist that information for this chapter's literature review was collected from considerable information resources such as university virtual catalogue, University of Sheffield Information commons information resources including books and journals, and the inter-library loan system to supply the researcher with required theses and dissertations from external suppliers.

In this chapter, throughout a brief history, the researcher will discuss the rationale of the phenomenographic approach. She will also introduce and examine the different perspectives of phenomenography which have been presented in the literature. The researcher will justify her selection of this approach providing fair justification why other approaches such as action research or grounded theory have not been adopted.

The meat of the later section will be a discussion of how the researcher thinks this research will contribute to the universal conversation in the territory of phenomenography as a first study in the Arabic literature to use such approach. The researcher will give fair ideas how her new process was applied. As the researcher believes that nothing is perfect, thus, she will give a detailed discussion about the criticisms which phenomenographic approach has faced

in the literature with discussion how she thinks those criticisms could be rebutted. The researcher then, will firm up this chapter with ethical issues which concerned her during the data collection processes and how she dealt with them.

3.2. Perspective of phenomenography and its rationale

The phenomenographic approach is a fairly new approach introduced in the literature by Marton in the late 1970s and early 1980s (Marton, 1981, 1986). It has been described by Marton (1980, 1981, and 1997) Svensson (1994; 1995) and Bruce (1999) as a qualitative and interpretative research. Giorgi (1999) saw it as a social, radical and constructivist approach able to perceive and describe people subjective relationship with the real world. Sandberg (1997) and Svensson (1997) understood it as a qualitative empirical approach.

Despite the fact that the approach has been understood and described in many ways, the core of phenomenography focuses not on paying special attention to investigate specific phenomenon only but to study the people who are experiencing the phenomenon (Bowden and Walsh, 1994). Thus, it focuses on understanding and reflecting the relation between both the phenomenon and the people who experience it. It highlights the ways in which people experience or think about the phenomenon; this makes the subject and object in phenomenography to be seen as one set rather than separate. In other words, it describes the subject's experience of the object that creates the relation between the two. As Marton stated "phenomenography is about constitution. People's experiences of the world are relations between people and the world, reflecting one as much as the other "(Marton, 1996: p 168). This makes phenomenographer able to discover the people's awareness of something rather than measuring their mental representation or a cognitive structure.

The early thought of phenomenographic as Marton claimed was based on Husserlian phenomenological philosophy (Marton, 1980) and on Gurwitsch's ideas on the nature of human awareness (Marton, 1964). It began by questioning the different ways in which people experience or conceive phenomenon; why they understood learning differently (Pramling, 1994, Marton, 2000). This question was introduced in such ways which were distinctive and unusual to be asked that time. Early studies in learning have identified the different ways that learners understand text and how these differences were related to the ways in which learners read the task (Marton and Säljö, 1976a). A few research studies also acknowledged deep and surface learning as different ways of experiencing learning and the distinctive research

approach used to identify these both was later called phenomenographic (Marton 1981, 1986, 1994). The early definition of phenomenography was introduced by Marton (1986) as an approach "*For investigating the qualitatively different ways in which people experience, conceptualise, perceive and understand various aspects of phenomenon in the world around them* (Marton, 1986: P.31). Thus, the main aim of phenomenography is to "*see the world through the eyes of people in the world*" (Burns, 2000, p.71). It does not try to describe things as they are, but aims to understand how they appear to people and attempts to know about people's experience of a specific phenomenon (Marton, 1988b). Johansson, Marton and Svensson (1985) stated that "*… we are not trying to look into the (individuals ') mind, but we are trying to see what he or she sees, we are not describing minds, but prescriptions, we are not describing the (individual) but his or her perceptual world*" (p.247)

The year 1997 witnessed the emergence of a new trend of phenomenographic approach. Much attention was paid to the epistemological and ontological assumption underpinning the status of the variations in the ways of experiencing specific phenomenon and how these ways would reflect ones concepts of the world (Marton and Pang 1999; Marton and Booth 1997). The focus is on understanding the nature of ways of experiencing phenomenon and differences between different ways of experiencing the same phenomenon in terms of the samples of aspects of phenomenon which are in the theme of people's awareness. The new trend was based on Gurwitsch's theory about the people's awareness. Marton with his new direction emphasized that people become aware of the specific aspects of the phenomenon by discerning variation in the dimensions linking to these aspects. People become aware of new ways of experiencing phenomenon by simultaneously discerning and focusing on the critical aspects for that way of experiencing (Marton and Booth, 1997).

The phenomenographic approach has been adopted in relatively considerable number of studies in social science territory, especially, education. Alexanderson (1994) stated that, the phenomenographic approach has been used in more than 1000 studies and 50 doctoral theses for the last two decades; obviously this number has increased dramatically since that time (Alexanderson, 1994 cited in Sandberg, 1997). Phenomenographic studies conducted in the last two decades tended to be one of the three following branches

1. The first branch focused on studying and understanding the conception of teaching and learning; this has dominated because the idea of phenomenography started with it (Marton, Dall Alaba, 1999; McKenzie, 2003). Some of these researches aimed to observe the interaction between two phenomenona such as Limberg (1999) who studied the interaction between information seeking and learning.

2. The second branch focused on understanding students' and academics' various ways in seeing and describing a specific cognitive discipline such as IL (Booth, 1997; Marton and Booth, 1997; Cope, 2000, Webber, 2003, 2007). This research undertakes underneath this branch share a common interest in studying the varying ways in which people experience X phenomenon

3. The third has studied more people's experiences of skills in their work (Sandberg, 1994; Gerber and Velde, 1996; Davey 2002, Kirk, 2002).

The first connection between phenomenography and IL was presented by Bruce's work (1997). She created a holistic description of the ways in which people experience IL as an aspect of learning, rather than the assessment of measurable attributes and skills associated with specific information-seeking practices. This study adopts Bruce's thoughts which are based on Marton's definition of learning as [. . .] *a qualitative change in a person's way of seeing, experiencing, understanding, and conceptualising something in the real world – rather than a change in the amount of knowledge which someone possesses* (cited in Bruce, 1997, p. 60).

Bruce's findings integrated with Marton's definition of learning have changed the benchmarks in the pedagogy from the teachers' perspectives to variation in the ways that the learners understand and perceive IL. Describing IL in terms of the varying ways in which it is

experienced by people, that is their conceptions, is another alternative purpose of this research. Studying IL from the viewpoint of the people" [. . .] *is the first step towards a relational view of information literacy"* (Bruce, 1997, p. 39)

For that, the sense of the variations is related to sense of people's awareness of the phenomenon and the different meaning that they create during their experiences. On the other hand, a phenomenon is always experienced as it is embedded in situation, but not as it reflects specific situation (Marton and Booth, 1997). An individual's fundamental awareness of phenomenon is different because it is related to different situations which the individual receive during the phenomenon. If the individual receive these situations in ways that introduce different aspect of phenomenon then the main awareness will become core and others will be recorded in the background (Pong, 1999). This means while someone experiences a phenomenon in specific way the other individual experiences the same phenomenon in different ways in relations to different situations (figure 12). Transferring the individual perspective to the research considers in the phenomenographic philosophy as second – order perspective which is focus on how the people experience the phenomenon not the phenomenon itself. A new direction of variation is introducing the variety not only with the individual perspectives but also the variety in the phenomenon.
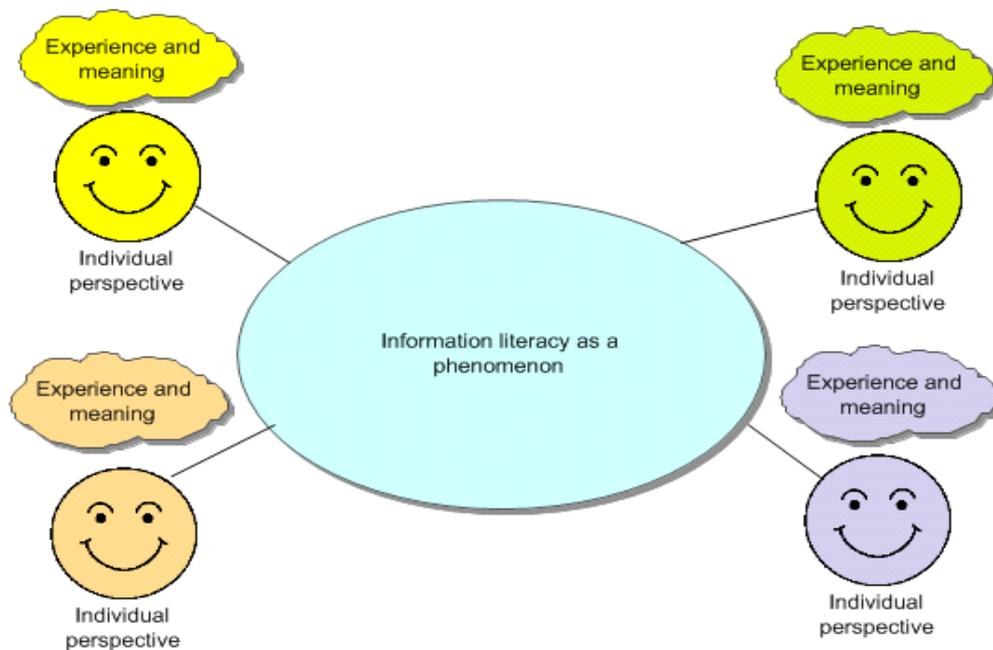
Figure 12: Experiencing the same phenomenon from different perspective

In summary, the sense of variation in regarding to phenomenographic research introduces in the literature in four main faces. The first face of variation reflects the qualitative in different ways in which people experience the phenomenon (Marton and Pang, 1999; Pang, 2002). The second face focuses on the variations as experienced by the individual. This is reflecting the ontological perspective (Marton and Pang, 1999; Pang, 2002). The third face focuses on describing the nature of ways of experiencing in terms of the person's awareness of critical aspects and corresponding dimensions of variations and the fourth face focuses on describing the variations of people's perspectives to the interaction between different phenomena. This study fits with the first and the third faces of phenomenographic approach; it is more likely to be a combined approach.

Although this study provides a new way, which is less common, to conduct two phenomenographic researches in the same study, the researcher was not working outside the flock. The researcher followed, for example, Mackenzie's (2003) steps in her well known work*: the variation and change in teachers' ways of experiencing teaching* adopted a similar approach. Furthermore, the researcher's future mission is to go back to Syria to teach at the Library and Information Science Department and being interested in Marton's Theory of awareness, the researcher wanted to understand how people's conceptions toward specific phenomenon would change their conceptions of the same phenomenon after receiving systemic learning experience . Also, to what extent would the systemic learning change peoples' perspectives toward a specific phenomenon? Understanding such issues help the researcher in her future career rather than any other approach because as Cheery stated (2008) "[phenomenographic] *approach is very useful approach when people wanted to unhook from deeply owned perspectives and experiment with different way of knowing and understanding. Sometime the more passionately committed we are as stakeholders, the more powerful the circuit-breakers needed to help us un-hook*" (P.62). Moreover, this research has the honour to be the pioneer in introducing phenomenography to the Arabic literature and to develop the concept not only of IL but also phenomenography conceptions.

This study uses a longitudinal and discursive phenomenographic approaches conducted in two parts in 16 months durations counting the time spent for piloting. The researcher started her research with the assumption that IL could be identified in the Syrian's context but had not been conceptualised yet. Thereby; she sought to understand how the people will conceive

a phenomenon which has not been conceptualised by them before and the types of variation in the conceptions that would emerge.

3.3. Selection justifications

The phenomenographic approach was selected for this study on the basis of its possibility to express and discover variation in ways in which Syrian school librarians would conceive the phenomenon of IL. Furthermore, how their conceptions would be changed after attending systemically designed IL training programme. The reasons for choosing phenomenography can be summarised as follows:

- As the main aim of this study is to discover the variation in ways in which school conceive the phenomenon of IL, then phenomenographic approach is the best approach for achieving such an aim.

- As the second part of the aim is to study the change in the school librarian's perspective, then phenomenographic approach has been chosen to achieve that part. Phenomenographic approach focuses on clarifying different ways of experiencing a phenomenon. The categories that emerged provided different types of behaviours and skills of acting in the world, some of which are more powerful, comprehensive than others (Marton and Booth, 1997). Therefore, phenomenography is significant enabler for change because as Marton and Svensson stated (1985) phenomenography concerns the differences in the ways which the people experiencing the world around them as well as the interaction between different phenomenon , therefore , it provides a considerable framework for promoting changes between ways of experiencing.

- The researcher aimed from this study to discover the variations in ways in which school librarian experience IL and how these variations differentiate their conceptions. On the other word, the aim of this study is to understand the conceptions of IL in the Syrian school library context but not to evaluate how IL has been applied or practiced in the Syrian context. Hence, phenomenographic approach rather than any other approach seemed to be the most apt approach.

- A few significant research studies have been conducted in the topic of IL and underpinned by phenomenographic approaches (Bruce, 1997, 2001, 2003 Webber, 2007. William 2008). Following those researcher's steps and contributing to IL and phenomenographic literature, the researcher adopted this approach.

- Phenomenography as an approach has the aspects of change because as Marton stated (1997) it is an idea that stands *against the rationalist tradition of thinking*. Therefore, adopting such approach will not only enable the researcher to understand the variation in school librarian' s conceptions of IL but also to promote change to their perspectives which in turn would influence their practice.

- Adopting phenomenographic approach allows the researcher use the findings of her research in designing an IL module to be taught to the students at the Library and Information Department at Damascus University – Syria. It is too much relevant to discover problematic criteria in choosing specific framework and the critical issue might be related. Bearing in mind that the opening of variation can be done by the teacher herself or by the teacher and the students jointly "*The way the pupils understand what has been taught, can some time contribute to opining dimensions of variation and thereby to the extension of the space of variation constituted* (Runesson, 1999, p.9). In addition, Webber and colleagues (2008) argued that using findings from phenomenographic studies could identify various conceptions that can be designed as a module to teach IL. Their argument was based on Pang and Marton quotation

  "The point of departure for variation theory is that learning is characterized in terms of the learner's dynamic structure of awareness, and it's related to discernment variation and simultaneity.... Learning is associated with a change in discernment, which entails a change in the aspect of the phenomenon is the focal awareness of the learner "P: 162.

- The researcher has been very motivated to employ phenomenography because she was willing to pave the way for other Arabic researchers and give them a practical example; contribute to universal conversations and create an approach that is culturally-specific and to have the honour of being the pioneer in introducing such approach to the Arabic literature .

This study, thereby, aims not only to discover the variations in ways in which school librarians experience new phenomenon but also how the previous concepts about the same phenomenon have changed due to change of the school librarian's awareness to the same phenomenon(Marton , 1997).

As phenomenographic approach was the appreciated approach conducted to answer this study's questions that did not neglect the fact that other research methodologies were studied

to ensure the most suitable approach for this study was adopted. Choosing a research method is a critical issue for any study (Creswell, 2007); because it is the approach which will be adapted to help the investigation and collect the required data to produce a complete and successful piece of research, therefore, it must be adopted to achieve this goal. Furthermore, it is a crucial step because once the researcher has adopted an approach, changing it would be inappropriate. In the most recent work of Pickard (2007), he considered eight research approaches used within information science territory, those are

1. Case study;
2. Survey;
3. Experimental;
4. Ethnography;
5. Delphi method;
6. Action research;
7. Historical research;
8. Grounded theory

According to the nature of this research, specific attention was paid to action research, Delphi method and grounded theory as research approaches which seemed to have prospects to answer this study's questions.

Action research was defined by McCutcheon and Jung (1990) as a "*systemic inquiry that is collective, collaborative, self-reflective, critical and undertaken by participants in the inquiry*" (McCutcheon and Jung 1990:P.148). Therefore, it aims to contribute to both," *the practical concerns of people in an immediate problematic situation and to the goals of social science by joint collaboration within a mutually acceptable ethical framework* "(Rapoport 1970:499 as cited in McKernan 1991:P.4). It is a first-perspective approach, depends heavily on the researcher's interpretations and observation to specific phenomenon rather than studying the learner's conceptions and understanding to the same phenomenon. It reflects the researcher's experience and understanding of the phenomenon rather than studying participator's experience of the phenomenon.

Action research is a systemic reflection approach which allows the educator to observe the teaching improvement or curriculum change (Walker, 2001) to empower people to achieve social, including educational, change. Kember and McKay (1996) argued that action research

allows teachers of participate directly in deciding which aspects of teaching need to be improved and how to deal with it. Furthermore, it is usually adopted to help teacher improve their individual pedagogical practice as well as the learning environment in their classes (Grundy, 1994). Levy and Fowell (1995) stressed that action research as an approach can contribute effectively to the experiential and constructivist learning principles; thereby, it can be adopted in any computer –supported collaborative learning environment as it provides a model which is transferable to other curriculum development initiatives.

Although action research enhances the possibility for practical change, the change is usually acquired because the researcher's behavior or maybe the phenomenon itself has changed and improved, but there is no evidence how the learner's perspective has changed toward the same phenomenon .Action research considers people's perspectives to improve the practice but its main goal is not investigating those perspectives. Furthermore, action research allows only the researcher's examination processes, taking action to improve those processes, then evaluating the results of the action, but not examining the improvement of the people's awareness to that phenomenon.

 In this study, IL was introduced as new phenomenon which had not been conceptualized before, so it is not an existing process which needs an action to be improved and then evaluated. Phenomenography allows the researcher investigate and study the meta-themes that-while not the true story of any one of us – at some level help to define the story of all of us (Cherry, 2005: P. 62). Hence, as the main aim of this research is not improving any teaching aspects or pedagogical practice, which is possible with action research approach, rather understand and discover variation and changes in people's perspectives about specific phenomenon. Action research seemed to be unable to answer this study questions. Therefore, it has been debarred out of the list.

Delphi method or technique was another possible candidate approach to achieve this study goal. Delphi technique is an approach used to gain consensus among a panel of experts. This is normally achieved through a series of rounds where information is fed back to panel members using questionnaires. This technique has been used extensively within social science researches to investigate experts, who have enough knowledge, opinions about specific issue (Keeney, S., Hasson, E & McKenna, H.2001). Lynn et al (1998) added that the

Delphi technique has been defined as an iterative process designed to combine expert's opinions into group consensus.

According to Dalkey and Helmer (1963) Delphi is a method which is ``*used to obtain the most reliable consensus of opinion of a group of experts by a series of intensive questionnaires interspersed with controlled feedback''.* Accordingly , the researcher found that Delphi method would not fit in any sense with her research aims and is not able to answer her research questions because 1) Delphi aims to collect consensus rather than variation 2) Delphi require expert's opinions ,while this study requires everyone conceptions.

Grounded theory also acknowledged being one of the possible approaches for this study. Pickard (2007) argued that grounded theory is all about how data is collected and analysed rather than about the entire research design. It is an approach that uses" simultaneous data collection and analysis", and as such can be applied in ethnography, case study or action research. It is not a particular method but a set of components and principles that need to be included in the research design. Also, as the main aim of this study is not to create a particular model of IL which grounded theory would allow rather it aimed to understand the links between emerged IL themes then the need so phenomenography has been adopted. The researcher since the beginning of her research was aware to the nature of her research questions and the type of the data she will look for unlike grounded theory researchers who must go to the fieldwork to conduct an exploratory study where extensive preliminary work needs to be done to gain familiarity with the phenomenon in the situation and understand what is occurring before developing any model and set up a rigorous design for comprehensive investigation.

Grounded approach, likewise case study allows researcher to study a specific phenomenon in specific context, it reflects mainly the first perspective of the phenomenon rather than second perspectives which was not the aim of this study. Also, the type of the question that case study investigates is different about what phenomenography could achieve.

3.4. Criticism of phenomenography

As discussed earlier, phenomenographic approach was described mainly by its developer as a qualitative approach, thereby, it has faced the same criticisms that most of qualitative

research faced. It is interesting to know that most of the criticisms have not been approached by positivist researchers but from the same rank of alternative qualitative researchers. Hasselgren and Beach (1997) articulated the phenomenological, socio-culture and post-structure critique in three main points.

1. The nature and the structure of the interview used in most of phenomenographic modes particularly the discursive mode is problematic because the questions *have not been taken very seriously by the phenomenographers themselves* (Kvale, 1989).

2. The set of the emerged categorises and the structure of the outcome space produced in any phenomenographic research present only the interviewee's experiences compared with the interviewer previous experience and estimated judgment.

3. The issues of validity, reliability and generalisability in phenomenography are critical because it is only related to the data analysis but to structure of the interview questions and the interview setting (Hasselgren and Beach, 1997).

Both these gentlemen were considered as the most serious critics of phenomenography. They introduced an alternative typology of phenomenography; their typology did not focus on the research interest but on the process of the description of the data collected. The idea that data are descriptions of the internal relationship between persons and things seems to be un-problematically accepted (Hasselgren and Beach 1997, p 193)

The major critique of phenomenography has been given to the nature of collected data and how it would be related to the research's question. Saljö, who is a socio – cultural researcher argued that in general, it would seem that data collected from phenomenographic interviews must be understood as indicative of accounting for (practices-ways of talking and reasoning) that interviewees. He add that a very little, if anything, is gained in analytical terms by an initial commitment to a position in which the researcher connects utterances to experiences rather than to discourse , since the letter is what is fact analysed (Säljö, 1997,p173)

The researcher could agree with Saljö to some extent, however, many points must be taken in any researcher's consideration before undertaken any kind of qualitative research not only the phenomenographic. These points are the participator's position, the interview place, the interview language, the interviewer's position and the used body language. This study has

been conducted in Syria which is an Arabic country; people were very sensitive to question "why" because such question challenges their knowledge. Hence, the researcher adopted a specific process that made her interviewers more involved (see the section below)

When Saljö made his critique he exemplified it with a research studied the student's conceptions of academic phenomenon, then the meaning that might emerge from such study would not be related to their everyday life. Study of school librarian's ways of experiencing new phenomenon then learn and study the changes in the conceptions which emerged is more complicated and rich. This new experience is more connected with their everyday experience in practice with taking in consideration other factors that might impact. Moreover, the school librarian's description to their experience will not only describe the experience itself but also all related physical, mental and behavioural elements and aspects as well as their own observation.

There is another idea which is related to the interview mechanism itself. The main intonation of interview is to be social discourse for specific purpose, and then during the interview the interaction between both the interviewee and interviewer increase the both awareness to the phenomenon as well as its social way for more learning. Marton and Booth (1997) stated that the interview itself may be a learning process for both researcher and interviewee, as the interviewee reflects on their experience of the phenomenon – perhaps in ways that she or he has not done before – and the researcher tries to understand as fully as possible the interviewee's ways of experiencing. Accordingly, the interview is a process of co-constituting awareness (Marton and Booth, 1997). According to this study, that has been approved, the researcher started her idea about IL in a stage and throughout the interviews her awareness to the same phenomenon has changed as she was in one place and she has been transferred to another. That is also true in terms of understanding the approach itself, thereby, increasing the number of piloted interviews were very useful (see the next section)

This argument leads to the second point that Hasselgren and Beach (1997) argued, that phenomenographic approach allows hierarchical relationship between description, categorization and participator's previous experience. This is not always the issue, in this study the researcher has not paid more attention to the internal and external relationship, but rather the outcome space and different categories which emerged Marton and Booth stated that "*The outcome space should describe the critical aspects of the variation between*

different categories, but include as few categories as is necessary to do this'' (Marton and Booth, 1997*)*. This has been the descriptive approach for a few academic studies such as Webber .et al (2006) study which aimed mainly to discernment the main emerged categories and conceptions in the outcome space without given much consideration to flag out the internal and the external relationships. Accordingly Marton and Booth stated that ''all *of the material that has been collected forms a pool of meaning. It contains all that the researcher can hope to find, and the researcher's task is simply to find it. This is achieved by applying the principle of focusing on one aspect of the object and seeking its dimensions of variation while holding other aspects frozen. The pool contains two sorts of material: that is pertaining to individuals and that is pertaining to the collective. It is the same stuff, of course, but it can be viewed from two different perspectives to provide different context for isolated statements and experiences relevant to the object of the research (P 133).* As, it can be seen the main concern for the phenomenographer must be formulate the pool of the meaning where the main meat is located. Revisiting this pool regularly improves the phenomenographer's awareness to some points might be hidden. The phenomenographer must seek as many ideas as possible from the pool to discernment between what is essential and what is additional. The phenomenographer might use different tools to achieve this goal. For example for this study the researcher employed the concept map to articulate her initial thoughts then to give her enough freedom to move and change the concepts. A few mind maps have been drawn until the researcher felt she is satisfied with the findings. However, there is a need to pay specific attention to Sandberg's (1997) five steps to achieve interpretive awareness

1. Remaining '' *oriented to phenomena as how it appears throughout the research process* '';
2. Do not explain the experience but describe it;
3. All the aspects of dimension must be treated equally ;
4. Use free imaginative variations to search for the meaning created by the phenomena;
5. Use intentionality as a correlation rule   by considering to what and how individual experiences are related to internal relationship between aspects of the phenomena as it appears to the researcher. (Sandberg, 1997: P 201)

Then if it is the case, phenomenographic research's discussion is usually based on categorising the outcomes to a set of taxonomies and clarifies the relation between them.

Each category of the taxonomy presents a specific set of descriptions of the way the phenomenon was experienced. Each category is related either internally or externally to the others, thereby, it arranged hierarchically. On other words, although, each category presents unique aspect of the specific phenomenon, by the end it is part of the whole body of the same phenomenon.

The variation in the phenomenographic research enables the phenomenographer arranges a set of descriptions internally and externally linked but provides different aspect of phenomenon , thereby , it allow breadth space of comparative-ability which is to some extent relative to grounded theory (Glaser and Strauss , 1967).

Phenomenographic analytical process in that context could be considered as database management system (figure 13) which arranges the relationship between the different internal database tables, relationships and initiates as well the external relationship between different parts of the different databases. With assumption that each individual has specific view of phenomenon and then each view has its own term, each term has its own aspects and each aspect has its identity. For better understanding the diagram below is drawn by the researcher
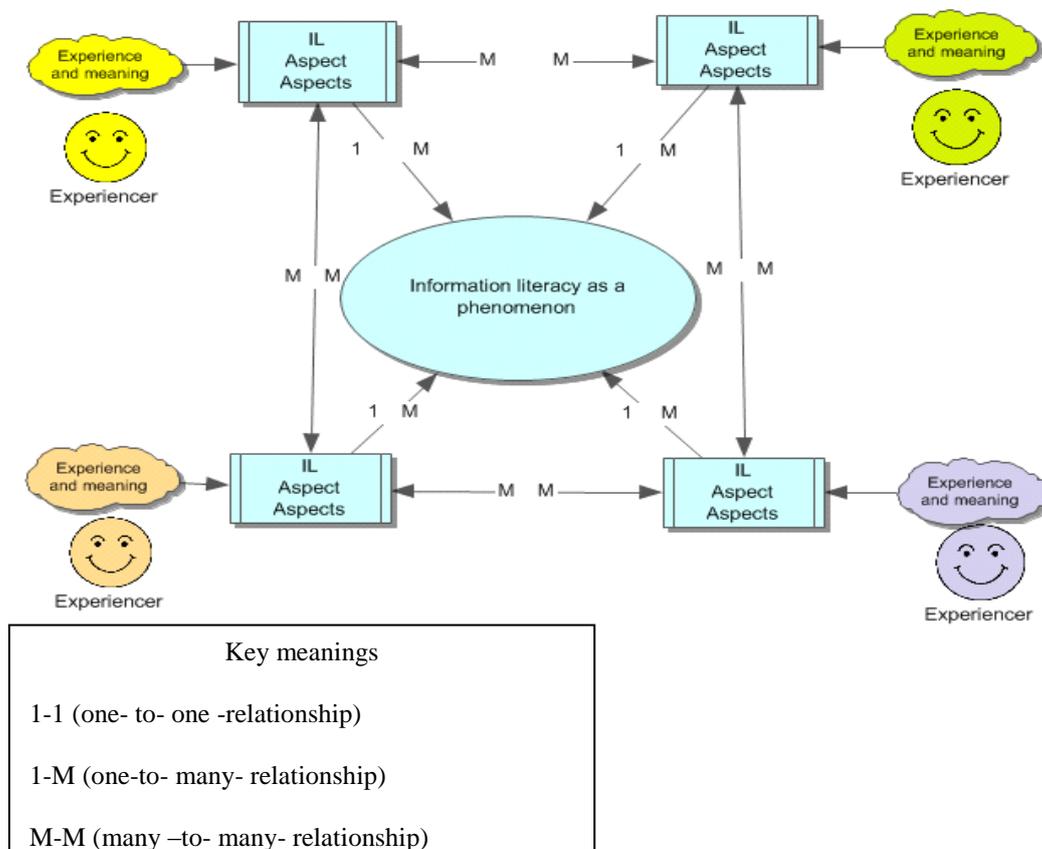
Figure 13: Phenomenographic analytical process

Designed by: Salha on 2008

As can be seen in the above diagram, each experiencer has different position from the phenomenon; this makes the variation in ways in which this phenomenon was understood contribute to the phenomenon itself. In other words, the meanings and conceptions which experiencers reflected is the result of their interaction and understanding to aspect or aspects of one phenomenon .Therefore, the main relation was described as one- to- many relations. That is one experiencer experience one aspect of the phenomenon or different aspects. Accordingly, an experiencer of specific phenomenon can reflect many meanings and describes different aspects of the same phenomenon to many experiencers who are, in turn, experiencing one or more than one aspects and able to reflect different meanings . Therefore, the main relationships between them are articulated as many-to-many relationships.

Illustrating and understanding the variations in ways which people experience specific phenomena require from the phenomenographic researchers find particular way to test of the clarity of description of an outcome space and to assure its reliability.

The concept of reliability has been understood in different ways; from a positivistic perspective it is "*the ability of a system or component to perform its required functions under stated conditions for a specified period of time* (Institute of Electrical and Electronics Engineers (IEEE), 1990). From the social perspective, it reflected the good quality research. The quantitative researcher saw it as the consistent of the result over time which gains accurate representation of the total population for the "*purpose of explaining*" but the quality concept in qualitative study has the purpose of "*generating understanding*" (Stenbacka, 2001, p. 551). In other word, reliability in qualitative research is related to replicability of result "… *if another researcher repeated the research project what is the probability that he or she would arrive at the same result* (Booth, 1992, p. 64)

With phenomenographic research the reliability has not been related to same sense that the qualitative research used to. Cope (2004) stated that phenomenographic studies interpretation would refer to replic-ability of the outcome space(s). Given a particular set of data, would different researchers report the same outcome space, this technique is called inter-judge

reliability. This term has been borrowed from qualitative, positivistic research. The term inter-judge reliability has been introduced for the first time within Trigwell and Reid work (1998). Trigwell and Reid, as undertakes a phenomenographic study of university science teachers' approaches to teaching, got three researchers to use the categories of description to classify the most advanced approach to teaching underlying each interview transcript. Reliability of categories of description can be claimed on the basis of the percentage agreement between all the researchers' classifications before and after consultation. Säljö (1988) described inter-judge reliability as measuring *the communicability of categories and thus gives the researcher information that someone else can see the same differences in the material as he or she has done* (Säljö, 1988 p.45). As can be seen both inter-judge reliability and inter-judge communicability are terms used to reflect the same technique (Cope, 2004).

Sandberg (1997) criticised this technique due to two different ideas. First, that the technique has been borrowed from quantitative research which reflects positivist perspective of knowledge where knowledge according to them exists in reality, rather than in a relation between an individual and a specific phenomenon. Second researchers usually do not provide any description to the research method and how it has been applied. In contrast, it directs awareness away from the method. Moreover, the categories of description may have been developed from data collected using poor or inappropriate techniques so the result according to this would be useless (Sandberg, 1997, p. 207). Therefore, he suggested an alternative technique called interpretive awareness. According to Sandberg Interpretive awareness means "*To acknowledge and explicitly deal with our subjectivity throughout the research process instead of overlooking it*" (Sandberg, 1997, p.209).

This discussion leads to the last a critique which phenomenographic faces is related to its validity and the ability to generalize. In qualitative research validity and generalization were always the main critiques from the side of positivists (Kvale, 1995). These notions concern many social researchers (Sandberg, 1997; Kvale, 1989) and lead them to clarify all related issues from the social science perspective. Validity issues has its own space in phenomenographic research, these are related mainly to the extent of the research outcomes which reflect the reality in ways that participators experience the phenomenon. Defining the validity of the qualitative researches has been pioneered by Kvale (1995) who introduced three main ways to evaluate the validity of the qualitative research

outcomes. These ways are 1) validity as a quality of craftsmanship 2) communicative validity and 3) pragmatic validity.

Validity as quality of crafting focuses on the continual questioning and checking of the research at all the process stages (Kvale, 1995). Communicative validity is much related to the interpretive awareness philosophy which is introduced by Sandberg. It is related to the dialogue that the researcher undertakes to be aware to the whole phenomena as well as to each individual aspect. The validity requires from the phenomenographer providing significant quotes to illustrate the meaning and the structure of categories of descriptions. These descriptions should be designed in relation to the whole phenomena to create rational consequences between each aspect, dimension, category and the whole process (Entwistle, 1997)

A pragmatic validity concerns is to look at two main issues; first, whether an interpretation's outcome has ended by action or lead to further action. Secondly, whether interventions based on them lead to desired findings (Kavle, 1995). For this research which aims to use the research's finding for an academic purpose the pragmatic validity is essential. Bowden (2000a) agreed that in educational context, pragmatic validity can be employed by a researcher who is willing to use research outcomes to serve an academic educational purpose (Bowden, 2000a).

As well as reliability and validity have had its own place from phenomenographers' attention, ability to generalise has not been ignored but it has not been seen as conventional idea because as Åkerlind (2002) argued that phenomenographic research aims to investigate the variations of the experiences of an aspect of the world for a specific group of people. The group of people is selected from a population to maximize the variation of experiences, rather than trying to be representative of the population. He added that

 "*Consequently, phenomenographic research outcomes have been described as not enabling generalization from the sample group to the population represented by the group, because the sample is not representative of the population in the usual sense of the term*" (P12)

The foremost criticism of phenomenography is that the procedures invariably fall foul of the dilemma of qualitative method in that the researchers search for interpretive authenticity is moderated by the need for scientific rigor (Hales and Watkins, 2004). *[The interviews] are not mental entities (internal relations) about the particular phenomenon under study but rather the accounts are the experience of the interview*. This means that the social construction of the interview deems that the individual is subject to influences within the interview when recounting the experience of the phenomenon. Because of this, the authenticity of the account of the phenomenon outside the interview is again questioned (Hales and Watkins, 2004). However, any researcher decide to conduct interviews should be aware that the questions must be designed to encourage and motivate interviewee to think more and reflect deeply on experience , but not leading the interviewee to the answer. Furthermore, the researcher should be aware that phenomenographic questions do not lead to right or wrong answer, but rather to reflect the interviewee's perspective. This might help both the researcher and the interviewee relax and enjoy the experience of reflection.

3.5. Approaches to this study

In this section a description of the processes that have been undertaken to conduct this study is provided, the positions which the researcher took during each stage of this study are discussed; the used tools and techniques for interviewing, transcription and analysing school librarian's ways of experiencing IL and themes related to change in ways of experiencing were articulated. Bearing in mind that the main aim of this research is to discover and study the variation and change of Syrian school librarian's conceptions of IL.

This study involved participations from 30 school librarians 10 for the pilot stage and 20 for the actual research. The interviews were conducted twice, once before the IL training programme (more details about the programme is provided in chapter four) and a second time at the end of the academic year over a sixteen months, which seems to be reasonably long taking in the account that: 1) the main focus was not only to discover the variation in ways in which school librarians conceive IL but also to discover the change in ways of experiencing overtime and after receiving specific training 2) the training programme which required time to design, pilot and introduce and, as the researcher is a sponsored full time student, she sought to fit all pilot phase, first interview phase, training programme phase and second interview phase within the approved timeframe. Twenty school librarians were invited to the training programme and the both interviews. In the main study, the interviews were

transcribed verbatim. Furthermore, a chain of complex analysis processes were then undertaken to constitute the interpretations (see chapters5-6).

In the following sections, in details descriptions will be provided for each part of the study but not the training programme (which is described in chapter 4) from the selection of the samples to participate through the pilot study, interviewing, transcription and analysis tools and interpretation, including the ways in which the researcher sought to achieve interpretive awareness at each stage.

3.5.1. Selection of school librarians to participate in the study

School librarians were selected from stage 2 and stage 3 public schools in Damascus and its suburb. The reasons beyond this selection are:

1. The researcher self interest with school library due to her professional background
2. Most of stage 2 and 3 public schools have a school library while in stage one school library is rarely well established. Most of the time it is no more than few books in cupboards located in the head teacher's room or at the staff office. Children usually enjoy reading the books during a teacher absence, in the free time or by request from the teacher or the children themselves.
3. Most of professional school librarians, who are essential for this study, were recruited to work in public schools rather than private
4. Damascus and its suburb areas are the most crowded Syrian's cities with schools; they have the largest populations' numbers which make their economic, social and educational instructions varied and professional school librarians mainly were recruited in their schools.
5. The possibility to chose non professional school librarians from larger age scale

Following the thoughts of Trigwell (2000a) in phenomenographic research, given sampling for purposeful variation, a participant group size of between 15 and 20 is considered to be sufficiently large, without becoming unwieldy, to reveal most of the possible viewpoints and allow a defensible interpretation. And based on Strauss and Corbin (1998) theoretical thoughts about sampling, samples were selected based on two criteria: selecting those who closely involved in the contexts (who have a regular attendance and commitment to their libraries) and maximising the possible range of initial variations of experiencing IL. The sixteen months longitudinal time frame meant that consideration must been given to selecting

school librarians who were more likely to complete over the time taking in the account that the retirement age for school librarians in Syria is 60. Forty male and female school librarians were selected initially for the full study, to allow for at least 20 -25 to remain in the study for the full sixteen months. This number seemed to be logical and likely to achieve theoretical saturation of the range of variation (Marton, 2000, Webber, 2007). Non professional school librarians were selected randomly from set of lists produced by the Ministry of Education to give each member of the school librarian's population an equal and known chance of being selected. As the total number of the school librarians in Damascus and its suburb was not very large populations, it was not difficult to identify every member of the population, so the pool of available subjects had an equal chance of selection. According to the professional school librarians the samples were purposely selected as their accessibility in the schools is limited insisting that the number of male especially professional ones was very limited.

The selection based on the fact that the school librarians must be attached (regularly attending their libraries and do not have any other commitments or series illness) with their contexts because the main aim of this study is to discover the variation and change in their conceptions in regard to their experiences within all related contexts. The school librarians have not been asked only to reflect their conception of IL in the school context only but also in every context they believed it influenced their conceptions, with the aim of flagging up the critical themes in the features which related to change.

3.5.2. Pilot study

As this study is the pioneer in the Arabic literature which conducted such approach, a dearth of practical examples is recorded. Accordingly pilot has been the main gateway to figure out the required techniques and to revise unacceptable questions. Although the researcher had initial awareness to culture diversity, she was not able to consider it as a reality until she involved deeply with the people.

The study involved a pilot group comprised of ten school librarians, five from each branch (2 professional males 3 professional females, 3 non professional males and 2 non professional females) and took a place in April 2008. The interviews with these members were arranged personally due to the fact that the researcher looked for people who could criticise and evaluate every aspect of the interview openly; most of them were old friends or ex-students who taught by the researcher at the Library and Information Science Department.

The interviews were tape recorded and analysis were conducted but the data collected from this group did not consider as a part from the finding because the main aim from conducting a pilot study was to discover the weakness in the interviews techniques, design, and questions to revise them as required.

The evaluation process started with early arrangement stage (since the invitation for the interview started). The interviewees were asked to reflect their opinions about all the process's steps, for example, what they thought would be right and wrong to do. Once each interview finished, the interviewee was asked to express his/her thoughts about the questions, the techniques, the equipments, the researcher's body language and the whole process in general. All these information was recorded by the permissions from the interviewees. The pilot interviews inspired the researcher to establish a set of rules and stick with them throughout the interviews which are:

- Ring your interviewees personally and show the interest and the willing to book place and time that comfort them. Furthermore, give them a brief idea what they are going through and encourage them to think about the concepts related to the term which allowed the researcher collect breadth information.
- Be committed to the time as much as possible because when you start changing people lose the trust which would impact negatively in their communication. Also, if the interview required travelling then leave early enough to reach on time.
- Be on time and show them that you love and respect what you are doing.
- If the interviewee during the interview asked to move to another location be flexible but inform someone else when and where you move.
- If the interview location was the interviewee's house prepare yourself for social conversation which might involve sometimes other members of the family
- Be aware to your body language.
- Respect other people's culture and differences. For example wear clothes that fit with the interviewee's culture
- Do not book more than two interviews on the same day. Some interviews may take long than anticipated.
- Use two different recording equipments at the same time to avoid any failure
- Be very well organized.

- Listen carefully to your interviewee as you have only few questions while the rest will be built during the interview

- Do not sit very close or too far from the interviewee.

- Once the interview is complete do not ask to leave immediately as this would be rude.

- Be patient and listen to their concerns but also be aware of your research focus

- Ask why questions were problematic to many interviewees, you need to explain what this is, its importance for your research.

- Before recording the interview, converse and try to build good rapport with the interviewee; observe his/her body language.

- Before taping give your interviewee a brief introduction to the topic in order for him / her to be engaged.

- Although many interviewees claimed that obtaining their permission to record was not essential, you need to be committed to this in each interview for few reasons 1) Motivates the interviewee to speak freely and openly 2) increases their acknowledgement to the value of the research so they contribute more effectively and 3) gives evidence about your ethical commitment.

3.5.3. The study actual interviews

The actual twenty five school librarians for this study were selected in August (2008). Twelve non professional school librarians and thirteen professional school librarians were invited to participate in the first phase interviews, the training course and next phase interviews. Permission from the Ministry of Education in Syria to interview the school librarians was sought because these people according to the Syrian law working in organizations founded by the government (civil servants), so permission from the Minster of Education is vital. As soon as permission was sought the researcher, directed by the Ministry of Education, visited Damascus and its Suburbs monitoring branches to select her samples. Once the samples were selected the branches in Damascus and its suburbs issued an announcement asking the school librarians the cooperation with the researcher further inviting them for the training programme and explaining to them that the required permission was given for the first phase, training programme and next phase interviews.

Only twenty school librarians, ten from each branch were able to commit for the full time period. The school librarians came from different educational, social and personal backgrounds and hold different perspectives and concepts of IL (see chapter 5).

Once the first interviews were complete the researcher was ready with her training programme which was conducted in Feb (2009) (see chapter 4). After two weeks training schools were given a period of time to experience the term of IL at their schools. The same group of twenty school librarians were very committed to the next phase interviews although some of them had very difficult circumstance such as family bereavement however, were willing to complete the journey with the researcher.

3.6. Composing the data: Interviews and transcription

As the main aim of this research is to study the variation and change in school librarians' conceptions of IL, the verbal words are significant as they reflect the images created in the people minds with regards to every individual's personal in interacting experience with the phenomenon. Conducting repeated interviews over an extended period of the time to study the change in people understanding to specific phenomenon has been the process for many previous considerable research studies (Wood, 2000 and McKenzie, 2003). This approach was considered as appropriate approach, the aim being to illuminate changes in school librarian's perspective of IL after receiving a systemic training and the patterns of the change over practical time. Semi-structured interview was selected for this study because it has been considered by many phenomenographers as a main tool to collect the phenomenographic data (Marton 1981, 1986, Webber et al 2003, Bruce, 2002). Furthermore, the nature of the study which aims to discover the variation in school librarians' conceptions about phenomenon was not experienced before, thereby, the dialogue rather than structured conversation is more acknowledged. The researcher aimed from the beginning to collect alive set of data, so using questionnaires would reduce the possibilities of such data.

3.6.1. The first phase interviews

Being the first study in the Arabic literature to adopt phenomenographic approach to study peoples' perspectives and conceptions was a challenge to the researcher due to the lack of practical examples. Although the pilot study was very helpful to establish the weaknesses and build on these, the interviewees are researcher's old friends or well known for her which made the interview process much easier. Also, as the main aim of this phase was to discover the variation in school librarians' conceptions of IL which is to new to them, and had not been expressed before made the process more challenging. Marton (1981, 1994) argued that there are a limited number of ways in which people experience a specific phenomenon. He described the main method of capturing the data is the 'open' and 'deep' interview. 'Open'

indicates that there is no definite structure to the interview. While there is a list of probing questions, the researcher is prepared to follow any unexpected lines of reasoning that the interviewee might address. 'Deep' indicates that the interview will follow a certain line of questioning until it is exhausted, until the interviewee has nothing else to say, or until the researcher and the interviewee have reached a common understanding about the issue of discussion

Unlike McKenzie (2003) and Entwistle (1997) the interview approach for this phase did not go with their recommendation of moving "*from action to experience and from concrete to abstract*" P.132 because the librarians did not have previous experience in expressing the tacit conceptions which the researcher could base on to begin her conversation. This made the interview approach based heavily on encouraging librarians to describe the composed concepts which emerged as a result of their thinking about the concept rather than expressing what they have learned about it.

Although the order of questions and the nature of probing questions varied with different school librarians, the first question was always "*have you heard of information literacy?*" such question prepares the interviewees to actively reflected on the concept (Ashworth and Lucas, 2000). Other questions were probed in regard to the interviewee's answer, an image or sometime few images would be created based on previous experience to something the interviewee believes would be related to the target term. If the interviewee struggle to think or create a concept the interviewer must be ready to provoke the interviewee's thoughts taking into account the interviewee's position in life. For example, one of the interviewee who is a granddad struggled to answer "*how would you describe information literacy?*" making the researcher formulate a question as "*well, when you play or may be sit with your grandchildren have they ever mentioned terms you have not heard about before*". Interviewee "*Yes many times* "The interviewer "*what would you do in that case, would you ask them* ". The interviewee "*first I would not* "The interviewer" *then what you would do*". The interviewee "*I would try to conceptualise them to see what they would mean maybe from the meaning of the words*". The interviewer "*then I want you to try to do the same with the term information literacy* "This conversation encouraged the school librarian to think more about the term and try to seek the meaning in different ways by linking the experience to one of a regular action in individual life. The researcher attempted all the time to move smoothly from question to question asking the school librarian to think about the term IL in a different

context and started from the most related on to their practical context to the largest one. For example "*what would information literacy means to you in school library, in school, in life*". Furthermore, encourages interviewee to think about the term from different people's perspective such as asking non professional school librarian *how would he/she think professional school librarian would conceive the concept* such question was very effective because it encouraged the interviewee to think in different direction which mean more variation. Integrating the term with other closed terms such as information literate extended school librarian's ability to conceptualise stakeholders involved in the school librarian context such as *how you describe information literate student in the library, in the class room, in school and in life* " .

Some interviewees found it difficult to express their thoughts verbally, therefore, a paper and pen were provided to help the school librarians with this.

 Repeating the same questions or sometimes wording the question in a different way is also one of the significant techniques adopted by the researcher for this study to assure that the interviewee fully understood the questions and the concept has been clearly described clearly. This could be considered as seeking confirmation of the school librarian's descriptions

Testing questions were also very useful to clarify the interviewee's attachment and honesty. In such question the interviewer could made up a strange concept which have not been mentioned by the interviewee to see where the interviewee would go with that (Kavel, 1996)

At the end of each interview and before acknowledging interviewee's participation, the interviewer needs to make sure that every possible concept about the phenomenon has been addressed and no related concept still tacit in interviewee's mind. This could be achieved by asking the interviewee if he /she wishes to repeat the answer for specific question and give additional information or may be by asking the question in different ways

A few barriers faced the researcher in this stage as follow:

   1) some interviewee's ability to open up and express their thoughts because as many stated the experience of such type of interviews and question was totally new to them. Some of them became very emotionally with the question *why do you think*? They claimed that no one has previously has asked them about their opinions which they value, and this was quite touching. While others felt this was a threat, and were trying to figure

out the hidden agenda, dealing with such interviewees was challenge to the interviewer who needed a lot of patience and understanding. A few others found the interview a learning experience especially the "why" questions. One interviewee stated "*To be honest at the beginning why question seemed to me quite strange, then when you left I found myself asking why questions. I have learned from that a lot* "SL. 4.

2) Although the researcher stressed at the beginning of each interview that the aim was not about giving the right answer but giving an opinion and conceptualise phenomenon, a few interviewees, especially those who had teaching experience were main concerned to give the "right" answer not their personal opinion. This required more times and effort from the researcher.

3) Some school librarians have had a bad experience with their school environment, some of them with their acceptances to the duties, others with head teachers and others with assistants. These issues challenged the researcher in many situations, however the researcher's interpersonal and communication skills were essential in these cases.

It is important to mention that the researcher used her own diary to record her thoughts of what IL would mean to the school librarians. The researcher did not use the information recorded in that diary as evidence, so the data has not been used as a main part of the findings.

3.6.1.1. The first phase transcription

Transcription according to Kvale (1995) is not an easy task as it is not only about transferring converting speech to text but also involves people's emotions about specific questions. Marton and Booth (1997) argued that phenomenographer should not aim to ask a reasonable question but to ask the questions that make him/her understated different perspectives of particular phenomenon. For this phase the interviews transcript were produced immediately after completing each interview.

The researcher decided to transcribe all the interviews as they sound with all unfinished, repeated, pauses and emotions such laughing, sighing and crying. All these were indicated in brackets in their position. Time and place for each interview were indicated at the beginning of each transcript. The transcribe was achieved in few stages

- Transcribe the information as it sounded for audio record to M. Word files
- Check the transcripts with original audios to correct errors as much as possible

- As the main interviews were conducted in Arabic then full translation were required. All the transcript Word files were translated from Arabic to English to allow the supervisor to interact more effectively with the work.
- Double check the translated transcripts with the tapes.
- The researcher transferred the data from the audio records to her personal IPod , this allowed the researcher to listen to the transcript regularly also increased her mobility which she needed to create the first version of her mind map about her impression of what the librarians thought IL was about.

The transcripts were not returned to the interviewed school librarians for checking as the researcher wanted to use them at the beginning of the next phase to allow the school librarians to think about their previous concept and how they changed.

3.6.2. The next phase interviews and transcripts

The main aim of the next interview was to discover the change in the school librarian's conceptions of IL and the related themes. According to Marton (1997), peoples' awareness to specific phenomenon changes corresponding to their new learning experience. The school librarians received a systemic learning experience by attending an IL programme (see chapter 4) which introduced varied concepts of the same phenomenon in varied contexts. These interview questions were piloted with the same pilot group also the data has been transcribed, but the findings have not been used to draw the last conclusion. At the next phase interview the researcher acknowledged the rules she established for herself and ethical issues she was committed to. Furthermore, it is impressive to say that the barriers which the researcher faced at the first phase disappeared completely at this stage; school librarians became more confident and less nervous as they became professional phenomenographic interviewees.

At this stage the librarians became more familiar with IL. They also had the opportunity to practice and test their adopted concepts. This means the interview process of this phase was slightly different compared with the first phase, but it was based on its transcript. At each interview both the interviewee and interviewer listened to the first transcript, this would refresh the interviewer's mind. This will allow the interviewee to remember the previous concepts and increase their awareness to the new concepts.

Once both interviewer and interviewee finish listening to their previous conversation, a new conversation should be started by asking "*Why do you think you described information*

literacy in that way". This question allowed the librarian to describe a familiar experience and explained the awareness at specific situations. This goes with Entwistle's recommendation (1997) to move from action to experience and from concert to abstract. The next questions were designed to encourage the interviewees to think deeper about their experiences and to discern what they think were related to the phenomenon and what were not. These questions were mainly *"Have your concepts changed, how and, why you think it changed? Describe new concepts, why did you describe information literacy in this way?*

Again questions about how other professionals and stakeholders would describe IL in different contexts were all formulated and designed based on the school librarian's answers. The same tactic with repeated questions and testing questions were adopted. The researcher adopted the same transcribe process she used in the first phase to transcribe the data.

3.7. Analysis of transcripts in relation to the different component of the study

Analysing the content of transcripts for each component took place over an extended period of time and different processes were applied. This section aims to provide a full description of the process of each component individually. However a brief description about the initial starting points and their influences on other processes is provided as a gateway.

3.7.1. Initial analysis of the pilot study

The initial analysis of twenty interviews of the pilot study began immediately after finishing interview transcription. As the main aim of the analysis at this stage was not producing data to be integrated with the main findings of this study but acquiring a practical experience and attempting to learn from previous well known theories, there is not much focus on the findings as on the process. Again this decision was made because of the lack of practical examples of analysing process for phenomenographic approach was recorded.

As a main process of the analysis the researcher printed out all the Arabic version transcripts produced from this component as hard copies. A general reading for all the printed papers was conducted in an attempt to acquire general ideas. This stage required three days to be achieved, as soon as this step finished the researcher used 10 different colours to highlight the quotations she believed were mentioning any type of concepts, reading transcripts required 2 weeks with 12 hours-per day working rate . Once this step was complete the researcher cut the highlighted quotations and discernment the colours and collects each colour in folder,

with help provided from her husband; the researcher was able to finish her work in 2 days. The researcher then revisited the main transcripts and tried to search again for more concepts or quotations; this step only took three days and only few other concepts were ready to cut and join the first group. The researcher then began to work with all produced coloured papers and read the quotations carefully to create a set of concepts by interpreting the school librarians' quotations. This part of the work was the most difficult part and it took a long time (4 weeks) of hard work.

By evaluating this process the researcher found a few weaknesses which are: 1) time consuming, each step of this component required long time to be achieved. 2) It is risky because the coloured small sheets might be damaged or missed 3) it is expensive with colours and papers 4) the environmental issues have not been addressed. 5) Much attention was paid to the coloured sheets while the main transcripts were ignored. 6) Ethical issues were raised when the researcher's husband helped who was able to read few quotations- confidential information. Accordingly all these weakness were avoided at the analysis of the actual first and second phase interviews (see the later sections)

3.7.2. The first phase and next interview analysis processes

Before conducting this process, the researcher did a comprehensive reading of more than 70 research studies which adopted phenomenographic approaches but none of them were able to show clearly which practical steps the researcher followed to reach to the findings. Although, Bruce, 1997, Mackenzie, 2003, Bowden and Green, 2008 attempted to give hints, what provided was not clear and systemic enough. The researcher, therefore, describes in this section the adopted process in details.

Step one: listen as much as possible to your recorded tapes

Before making any practical step towards analysis listens carefully and regularly to your taped interviews and write your impressions of what you think the main concepts would be. The researcher found that brainstorming the ideas on paper and sticking them on a big white board was very useful as it increased the researcher's ability to alter, remove and add new ideas easily and more freely. The researcher called this map of the concepts. Many advantages could be acquired from this step 1) makes the researcher more familiar with the transcripts 2) reduces the first stage required reading time. 3) Increases the researcher mobility. For example, as mentioned earlier the researcher transferred all collected interviews

into her personal IPod and listened to them everywhere even during cooking. The interviews accordingly became part of the researcher's everyday life and 4) helped the researcher create initial ideas about the study findings.

Step two: scan your transcripts

Once the researcher believes he/ she is confident and familiar enough with the recorded interviews, he/she can move to the next step which was scanning the transcripts. The main aim from this step was to acquire general visual idea what the transcripts have and to create a relationship between texts and the researcher. For this study, the researcher created two versions of transcripts, Arabic and English, as the interviews were conducted mainly in Arabic. The researcher scanned both at the same level; however the English version took more time. No printed copies were produced as the researcher has a considerable concern toward environmental issues.

Step three: create Excel file

Once the researcher refined the second step he/she moved to the third step by creating an Excel file to discernment which quotations the researcher believed would be relevant to the research questions and which is not (see figure 14) . Thereby the heading for each table must be the question and under it all related answers .This step is significant to tidy up the answers of the interview's questions and to combine all related ideas and concepts, this document allowed the researcher to collect all related quotations on one file. The researcher in this step created only an Excel document for the English version because she was not sure about the level of the translation.

information literate student

the one who knows how to select the book's title

information literate student selects unique subjects to read about

information literate student has a good academic report ; high academic achievement

information literate student has an advance awareness sense ; She knows what she wants and she knows how to get it

she knows how to transfer the information she has learned and share it to others

he is a tactful

He has the ability to gain the benefits from the books he borrowed

information literate student has an academic achievement

he knows which books he would like to read and how to select it

He is able to answer the related question to the book he borrowed

he can explain in details and give examples about what they have learned from the books.

the students who are capable to use the information effectively

I consider his literacy from his way in choosing the book's subject

When the student chooses a unique title that required knowledge and innovative brain to be understood

these kinds of students usually have advance ability to explain what they have read using advanced vocabulary

Must of literate students challenge their teachers and ask very specific questions that reflects advanced knowledge and abilities

infor litr students are the students who ask questions over their age knowledge …

The information literate student seeks the knowledge more than the answer for the assessment's question

They want to discover the world more than answering the teacher's questions

The knowledge to the information literate student becomes a need not a luxury

The life to them would not be completed without that knowledge

information literate student is the one who knows how to select the book's subjects. He understands what he read

information literate students must be able to understand the information and answer the related questions

He can summarises the ideas and presents the related examples

He can transfers what he has learned to another student .

I think these students have the sense of knowledge

Figure 14: An example of this study Excel file

Step four: start analysing the Excel document

All the required information now collected on one document, which has the pool of the meanings for all related information (Marton, 1981). Thereby, the researcher could start confidently reading the quotations and highlighting those with different concepts in different colours (figure 15)

information literate student
He loves asking and questioning.
I have few students who visited the library regularly
They read more than two books a week
They answer the questions which I asked about the books, they know how to share what they have learned
He is the one who is able to explain and analyse the information
He is the one who is able to gain, understand and communicate information that is over him educational age
The information literate student must be care- information student
He must tack care of his knowledge. Information literate student knows instinctively what to read and how to gain the knowledge f
Inform lit student is the one who is eager to the knowledge
He is trying to seek information whenever it is
he knows how to find extra information resources that explain the idea he is looking for
I know this from my experience with the girls at the school
I think to be knowledge literate you need to know how to communicate to transfer this knowledge to others and to practice it .
he knows how task me where to find the information about a specific book. He knows what he needs. He knows his target. He kn
Also he knows how to find the book in the shelf.
he is the one who has the ability to cope with the new century skills to live better life
He needs to know how to use the computer and the internet to make his life easier
he needs to learn more than one language to make his knowledge and universal contribution more and richness
he must has the 21ˢᵗ century skills
His way of selecting the book's topic is the signal
Most of the students who select a unique subject to read about are unique students
The info Lli stud asks about the subject he wants to read before selecting the book
He does not select the book from the title but he asks about the book's subject
If the subject was meeting his interest then he asks about the author
To him it is not enough to find the related books to the required subject but the book's author must be well known
you can know the ILis from his interest in reading the books and the type of books he read.
I can sense him; from his behaviour
they are able to summarise the idea and show a good understanding.
they are able to alter information from many books to create a new ideas

Figure 15: Coloured quotations

Step five: identify initial dimensions and categories

This step could be achieved by creating word documents which included tables of initial interoperations to the related categories and dimensions with relevant quotations (see figure 16). This step helps the researcher create an initial vision what categories and which dimensions the data draw. The researcher could highlight critical words in each quotation in different colours.

Dimensions of variation	
Categories	**Nature of the skills**
IL as information skills	Ability to search for information "It is the ability to search for the information" interview 3 *"means the ability to search for the book, to look for the information in the books in order to gain some ideas to present it to the students to allow them get benefit from it "* interview 4 "when you said IL I could imagine a man holding big number of papers, documents diving into it to find what he needs" 16
	The ability to find information "IL Could be specific skills that someone should apply to find the required information" interview 2 "It means that someone must be quick enough to find specific information (single) about specific subject. I am describing the people behaviour to find the information and use it. Ten years ago people were using reference books to find the information they wanted, today people are using the computer and the internet" 13

Figure 16: Creating tables of initial categories and dimensions

Step eight: compare the tables with initial thoughts

At this step the researcher should compare the initial findings to initial thoughts to measure the difference. This step is very significant because it shows the researcher how his/her awareness to the data has changed.

Step nine: create a new map of the concepts

The researcher at this step should be able to create a new concept map which shows both the concepts and the expected dimensions

Step ten: revisit your Excel document and keep listening to your records

This step is very significant to assure that all concepts were identified and acknowledged

Step eleven: keep visiting your tables to ensure that the used categories match the selected quotations

Step twelve: keep modifying your concept map until you feel all the job were done perfectly

The process of analysing the first phase interviews dominated the researcher's life for three months with 10 hours working rate. Analysing the next phase interview did not required the same time because the researcher became an expert; also, she only translated the categories, which emerged, dimensions and their relevant quotations.

3.8. Ethical considerations

This study raises some ethical issues, such as informed consent, confidentiality, anonymity; the rights of the participant to withdraw at any stage and access the research results, and the cultural and religious concerns. The primary focus of ethics in any type of study as Beauchamp et al stated (1982) is to "*ensure confidentiality of the data and communication to participants of any constraints on the investigator's ability to maintain confidentiality*" (P.79). With regards to ethics, the study required formal approval from the university in UK as well as Ministry of Education and culture in Syria for the pilot and actual set of researches (see appendix1).

The interview participants were asked to read the informant consent sheet and sign it before commencing the interview. Also, the researcher informed all participants at the beginning of each interview their right to withdraw at any point in the interview without need to justify their decisions. Furthermore, she provided the interviewees with clear ideas why she was conducting the study, why they were chosen and to what extent the collected data will be used and for which purposes. During the interview, the researcher avoided mentioning any interviewee's name so all the collected data also in the taped recorded was kept anonymous. The researcher agreed with the interviewees, instead, to call them by their initials. As the data collected for this study could not be transcribed immediately, the researcher kept all the recording taped in safe and secure place until she was able to transcribe them.

One of the most critical ethical considerations for this study is the religious and cultural concerns about female interviewing male. The researcher solved this concern by allowing some relative like wife to attend the interview without contributing in any way to the conversation or by conducting the interview in public place such as coffee shops.

Furthermore, once a few interviewees asked the researcher to conduct the interview at their own houses, the researcher was aware of the type of clothing and behaviour which would not be accepted in some areas in Sub- Damascus, hence, she avoided to wear or behave in the way that would not be acceptable which would influence negatively in the interview process.

The researcher in that case was also aware to her security and safety, so she told a relative where she was going giving them full details of the address and interviewees' contact number after seeking permission from the interviewee.

3.9. Chapter summary

This chapter has outlined and discussed the rationale for the methodological approaches adopted for this study, and how it is related to both classical and new phenomonographical approaches. Detailed descriptions were provided highlighting the attitudes, behaviours and processes the researcher adopted in order to achieve this study using interviews, transcriptions and analysis. The analysis and discussion of the findings can be found in chapters 5-6-7 and 8 but chapter 4 will provide a brief outline of the training programme

CHAPTR 4: The Information Literacy Training Programme

4.1. Introduction

This chapter discusses the various aspects of the IL programme (Appendix 3) introduced to the Syrian school librarians as a part of this research. Furthermore, although the main aim of this study is not concerned with evaluating and investigating the effectiveness of the process and the quality of the provided training course materials, it seems significant to present a brief idea about the theoretical and philosophical principles, which the researcher has considered when creating the design for the IL training programme.

As the researcher conducted a pilot study to test the programme's materials with real samples, a clear description of the pilot study procedures with required evidence was provided. The researcher also explained to what extent the revised programme helped her in terms of introducing IL as a new phenomenon within the Syrian school libraries context.

It is important to mention that, in the interest of developing the training programme, the researcher sought the required information from considerable ranges of literatures written in different areas of knowledge, such as teaching and learning, library staff training programmes, and labour market skills. The researcher also attended a few training courses in the UK and overseas in order to help in terms of understanding the extents that training programmes for library staff have attempted to provide the library staff with the required skills to run such a programme (Appendix 3). Furthermore, the researcher simultaneously worked for a diploma in communication skills to improve her personal communication capacities, which supported her on many occasions in her training course.

4.2. Theoretical and Philosophical Principles

4.2.1. Introduction

It was a challenge to the researcher to articulate and summarise all her theoretical knowledge and philosophical understandings, which were built-up during many years and which supported her to develop and introduce the training programme for Syrian school librarians. Therefore, she selected a few benchmarks which she believed made a difference to her awareness and understanding. Those benchmarks are scholars, ideas, experiences, and education. The following sections provide more details.

4.2.2. The first Benchmark: Bruce and Marton

In her book *Seven Faces of Information Literacy*, Bruce yielded IL conceptions into a new trend which had not been expressed before. Her book extended people's thoughts towards IL as a phenomenon, and provided them with new ways of conceiving such. In her book which was substantially her doctoral thesis— and later in her published works, Bruce notes reservations in giving IL a specific definition. She claimed this as relating to her thoughts that people see and understand specific phenomenon in different ways (Bruce 1997, 2000, 2001, 2002, 2006). Furthermore, she links the fragmentation in people's understanding of the phenomenon of IL to *'the recent and continued emergence of both the phenomena itself and scholarly understanding of it'* (p.11)

Bruce built her opinions based on Marton's (1981) phenomenographic approach. Marton (1981) demonstrated that students understand teaching and learning in diverse ways, which leads to some students being better at learning than others. Likewise, some school librarians should be better in doing their jobs than others: '*Many schools are doing a good job and pupils are benefiting from it; other schools can learn from this good practice*' (The Office for Standards in Education [Ofsted] report, 2001). However, Marton (1981) was a pioneer in developing the variation theory. Notably, learning by experiencing different conceptions of the same phenomenon was the idea of Svenesson and Hogfors (1988); these authors stated that students should not only learn the correct conception, but rather they should learn how to adopt alternative conceptions into their own perspectives. That seemed to be the motivation that drove Booth (1992) to describe learning as:

Gaining access to views of future faces (or conceptions of phenomena) and developing an intuitive relationship with the object so that a proper face or set of faces is seen in appreciate circumstance' (p.262)

Marton and Booth (1997) linked the development of the understanding of any phenomenon to the awareness of the quality of the different understandings and conceptions of the same phenomenon, and when and where those could be used. This was later termed by Bruce as the relational model (Bruce, 1997). Bruce claimed that her relational model aims to provide people who are willing to teach or train IL with a clear vision of available IL conceptions, which they could then target in their teaching or training programme. She adds that the relational model can also be used to help teachers

to consider their students' abilities to identify new conceptions and their capabilities to link emerged conceptions to previous ones.

The researcher appreciates that the two scholars form the basis of the first unique benchmark for her study for the following reasons:

1. Their ideas inspired the researcher to consider IL in different ways, and further helped her to identify that any phenomenon is not only one colour;

2. The researcher's awareness of teaching has shifted: Marton's ideas have changed her understanding and extended her conceptions of teaching and learning;

3. Bruce's *Seven Faces* book provided the researcher with hints concerning how she could design a multi-conceptions IL course; and

4. Marton's thoughts have changed the researcher's attitude. For example, she has learned how to be more patient and how to respect other people's perspectives, as she understood that, when someone has only one perspective, his/her ability to contribute to others' conceptions is less than one with different understandings and perspectives.

4.2.3. The Second Benchmark: The 'Eat the Elephant' Technique

Before going any further with introducing the 'Eat the Elephant' technique, it is important to mention that the researcher has gained knowledge about this idea from her Masters' degree in Information Systems; therefore, the first stone of her knowledge was built based on her understanding of this technique in the Business as well as Computing contexts.

The principle of this idea is simply, '*If you cannot eat the elephant in one bite, eat it bite by bite'.* It is not clear in the literature from where this quotation originally derived; however, it seemed to be either English or American with its roots in African culture. Later (1998), stated the idea of 'eat the elephant' was introduced in the business literature by many scholars (Mintzberg, Ahlstrand and Lampel) who maintained it as a strategic plan to reduce the complexity in management, and later termed it as the Elephant Strategy (Mintzberg, Ahlstrand and Lampel 2005). The technique was developed later to a notion called 'Eat an Elephant', and it has been used in training and personal development literatures to help trainees as well as managers achieve training programme's goals on time and with low costs (Sewell, 2003; Moore, 2009; Willmott, 2008).

Willmott (2008) stated that the Elephant technique is one of the most successful techniques used to help all managers and employees to break the complexity of the business training courses and to meet deadlines. He stressed that the technique helps in directing individuals to where they have to start eating rather helping them to reduce ambiguity, and steers then towards creating a plan to meet targets. It helps them to identify their priorities and to plan the next step with completion dates for as many activities as someone could handle.

In the library and information arena, the idea was first introduced by David Loertscher, a professor at a Library Science Department in San Jose State University. Loertscher (1985) employed the term to encourage school librarians to create a reasonable library collection development plan which fits with their priorities. He, in addition, provided them with an eating plan to direct them in terms of what and when to eat the pieces. With this in mind, the researcher adopted this technique in order to assist with the current study:

1. Manage the large contents of the training course.
2. Reduce the required time of each stage.
3. Reduce the costs.
4. Identify the priorities.
5. Manage the available resources.
6. Meet the targets and deadlines.

The researcher added two extra steps in order to ensure that her participators benefited from eating the elephant (in this study IL); those steps are digesting the elephant and feedback, of which more discussion is provided in the training programme sections.

4.2.3. The Third Benchmark: Training the Trainee for Information Literacy

As previously mentioned, the researcher has attempted to gain the required knowledge in order to develop usual IL in Syria from different sources. In this section, the researcher explains a variety of consideration: her experience with attending the IL training programme (developed and presented by UNESCO in 2008 in Alexandria, Egypt), and how that experience influenced her training course, as well as why it is selected as a benchmark; however, notably, it was one of seven training courses which the researcher attended.

As part of UNESCO's strategy to develop the level of IL on a worldwide scale, to educate information-literate citizens who are able to 1) meet the 21st Century challenges 2) become lifelong learner, and 3) to reduce or possibly bridge the technological gab between East and West, UNSECO delivered 13 IL training programmes in 13 different places.

The researcher attended a two-day course presented in November, 2008, and hosted by Bibliotheca Alexandria, Egypt, as one of 180 participants (although the official number on the website states 92), all of whom were mainly public and academic library professionals from Egypt.

The researcher selected this course as a benchmark for many reasons, including:

1. She was able to observe in reality how IL could be seen by Arabic people, taking into account that the term, until this day, has not be officially translated by official Arabic organisations;
2. She learned from the course's mistakes;
3. She was able to experience how the UNESCO practically applied the term;
4. She learned how to design an IL course that meets Arab's needs; and
5. She was able to update herself with the new management and coaching behaviours.

The researcher training has been influenced by UNESCO training programme in many ways, some of which are further detailed below.

The materials: the researcher designed the materials so as to meet Arabic needs and understanding. For example, she mainly used the Arabic language in order to present her materials, and delivered IL from different perspectives—unlike the UNESCO course, which employed mainly the American-English language and presented only the American perspective, which heavily stressed the computer and IT literacy rather than any other perspectives.

The participants: although her main participants were school librarians, the researcher nevertheless invested extra effort in order to ensure that people from different ethical, academic, personal and cultural backgrounds were invited. Furthermore, she also invited the number she thought she would be able to manage and train, unlike the programme in

Egypt where the Egyptian public librarians dominated the course and the number was difficult to control.

The process: the researcher provided assurance that the process of the course would be clear and simple. Furthermore, the participants' plan, sheets and documents were completed and written in a simple and understandable language (Appendix 3).

4.2.4. The Fourth Benchmark: The Communication Skills Diploma

The researcher was aware that developing a training programme to train a set of professionals is not only challenging in terms of her knowledge and educational capacities but also required high communication and interpersonal skills; therefore, the researcher decided to invest in herself and chose to attend an online diploma course in order to learn how to develop those skills. It seemed that the researcher made the right decision because her new skills and knowledge enabled her play many roles alongside her role as knowledge presenter such as:

1. Icebreaker: Tizzard et al. (2003) stated that the salient role of the icebreaker is to set a positive environment for members' interrelationships and to accordingly encourage interest in the overall training experience. Wood (2007) added that training programme facilitators should be a capable of helping group members to learn about each other and to effectively and successfully break the ice between them without taking anyone side. The researcher was able to use these recommendations: for example, she invoked traditional Arabic hospitality behaviour by providing the participants with specific Arabic sweets, which encourages the interest in both the programme and the researcher.

2. Coaching roles: Whitmore (1992) defined coaching as '*unlocking a person's potential to maximise their own performance. It is helping them to learn rather than teaching them…*' (p.16). Wood (2007) added that the relationship between each coach and trainee is built around honesty and openness. Hence, the coach must enable the trainees to learn from both bad and good experiences by actively working on weaknesses, strengths, threats and opportunities (p.190). The researcher was able to play the required role by inspiring and motivating participates to share and contribute to produce a satisfying level of communication.

Achieving these goals was very critical in respect of culture difficulties. As the researcher is very familiar with the Syrian culture aspects, she was aware that her culture does not

motivate people to express thoughts and ideas nor share them with others. Participants were afraid of each other due to a lack of trust and a lack of confidence; hence, her role was to build up trust in many ways. For example, she introduced herself openly and shared with them some personal interests. Furthermore, she assured them of confidentiality and that their thoughts and opinions would be respected and not discussed with anyone for any reason during or after the programme. To some extent, this method of reassurance worked effectively during the programme and encouraged more sharing and participating.

3. Understand cultural and religious diversities: it is important to mention that the communication skills' education helped the researcher in terms of gaining and improving understanding in terms of cultural and religious diversities, and how to work with these in order to provide a successful IL programme. Furthermore, she also learned about the different styles of learning and teaching which are common in developing countries; this supported her in developing a useful IL programme. In this context, Gorman and Dorner (2006) respond to the question '*how we teach information literacy in developing countries*' by suggesting that the best way of teaching IL is to teach it in the same context that the learners are used to learning, and to also use the same cultural landmarks. They add that Hofstede's *Five Dimensions of Culture—Power Distance;* Individualism and Collectivism; Masculinity; Uncertainty Avoidance; and Long-Term Orientation—must be considered before developing an IL programme (Gorman and Dorner, 2006, p.9)

4.3. The Pilot Programme

Before detailing the actual course stages, it is important to mention that the training course was piloted with ten school librarians and their feedbacks was appreciated to re- modify the initial programme to be ready in February, 2009, for the actual implementation.

However, although the initial programme was a result of comprehensive reading, knowledge and experience, the researcher needed three months (April-July) in order to produce the required materials for the two-week training programme. The initial (pilot) programme was delivered in August, 2008—during the school summer holiday—to ten school librarians, all of whom were a part of the same participators of the pilot interview group. Ten days' training, 7 hours' daily, were targeted for the programme. The pilot programme was funded and supported by the Ministry of Education in Syria which showed complete commitment to

providing the required equipments, including the training centre. Notably, from the pilot programme, the researcher aimed to achieve the following:

- Evaluate her performances
- Test the materials and their effectiveness
- Test the real-world needs
- Prepare the environment
- Consider the weakness, strengths, opportunities and threats of the programme.

The researcher asked each delegated librarian to write a detailed daily diary concerned with his/her concerns, thoughts and evaluation. The diaries were then collected and analysed by the researcher, who gave the diaries, the taped records and her own diary serious consideration when striving to produce a SWOT analysis; this was very helpful in revising the programme (Table2)

Table 2: SWOT analysis based on the pilot study analysis

Strengths	Weaknesses
1. New ideas; 2. Well-designed materials; 3. Nice presentations; 4. Communications skills; 5. Suitable equipment; 6. Skilled presenter; 7. Required supports; 8. All professional and non-professional, male and female and young and old work together.	• Delivered in the summer holiday; • Electricity problems; • Internet connections failures; • Lack of visual materials; • Individualism; • Hand out must be produced.
Opportunities	**Threats**
• The possibility to revising the programme's materials; • The required support overtime; • The possibility for more participation.	• The lack of control over the electricity and internet connection failures.

The main tools which the researcher employed in order to deliver her course were presentations, workshops, oral conversations, video shows, audio materials and ICT tools.

4.4. The Training Programme

The researcher employed the produced SWOT analysis in order to revise her programme by keeping the strengths and avoiding the weaknesses. The actual training programme took place in February, 2009. Twenty professional and non-professional school librarians (the same group as the first and the next phase interviews) were invited by the Ministry of Education to participate in the two-weeks training programme. The official starting time of the course was 9:00 A.M and ended at 3:00 P.M. Although the researcher's main aim of the programme was not to develop the school librarian's abilities to create an IL programme (Appendix 3) for their schools, she utilised this golden opportunity to provide them with some hints on how to successfully deliver IL programme. The programme, as previously mentioned, was funded and supported by the Ministry of Education in Syria, particularly the Minister, who saw the programme as being a '*wonderful chance to change school librarian's perspectives of the school library and school librarians' duties*'.

As previously noted, the researcher added to the Eat an Elephant technique two extra stages —Digest the Elephant, and Feedback—as it was believed that eating the elephant would not be enough; digested further feedback would be required from digestion in order to show the benefit of the meal (the Elephant). For this purpose, the researcher divided the programme to three stages: First, Eat the Elephant (seven days); second, Digest the Elephant (two days); and third, Feedback (one day).

4.4.1. First Stage: Eat the Elephant (seven days)

The Elephant in this case is the IL phenomenon. The researcher divided it into seven pieces, the same number of Bruce's faces and delivered theses seven pieces to the participants in seven day. The course used to start at 9:00 in the morning and finished at 3:00 afternoon .Each day has its unique title and main target (see table below)

Table 3: Eat the Elephant stage's titles

Day Number	Day Title	Day Main Target
1	IL as using ICT tools and technologies	Experience the usage of main ICT tools in the school library context (Internet, i.e. email, blog, chat rooms)
2	IL as information resources	Experience the usage of main information resources in the school library context (locally and globally)
3	IL as applications of information process	Experience the usage of both physical and virtual search tools and strategies in the school library context
4	IL as information management	Experience the usage of information management tools and strategies in the school library context
5	IL as critical thinking and knowledge construction	Experiencing the usage of analysing and evaluating tools in the school library context
6	IL as knowledge extension	Experience the cultures difference and physical communication tools
7	IL as Wisdom	Employ all the above experiences to improve personal and others life

The main tools which the researcher employed to deliver these stages were: presentations, workshops, oral conversations, video shows, audio materials and ICT tools. The first two days were a big challenge to the researcher because alongside her duties she had to play extra roles such as IT technician while the rest of stages were not doughy like the first pieces because the participants started to use each other and extra supports were supplied by the Ministry of Education.

Fourteen presentations and seven video shows were supplied to provide the participants with different perspectives and conceptions of IL alongside workshops, oral conversations, computer practicing, social support and interaction.

4.4.2. Second Stage: Digest the Elephant

The researcher created this stage to enable the programme's participants *digest* the programme materials; understand and reflect what they have had learned during the programme. She wanted to give them free space for themselves to go back to the programme materials to re-read them which might help them create the initial seeds of the conceptions. In addition, she wanted to give them enough space of freedom to share and communicate openly out of the programme's room and without her directions and involvement. It was, also, a good opportunity for her and to other participants, who were less confident and lacking ICT skills, to come closer and work together as one- to- one training which required more time to be spent and much efforts to be given. This stage sprinted in two days duration. The participants and the researcher were working twelve hours a day, from 8:00 AM to 8:00 PM while the official time was seven hours, from 9:00 AM to 3:00PM, to prepare the presentations for the feedback day.

This stage required from the researcher much work and effort, though, in different contexts. For example, she was responsible for assisting the participants without leading them, and supporting them in expressing what they think and what they had learned without giving them answers. The role was very difficult because most of the participants were dependent and objectivist learners who believe that learning objectives must be taught by the teacher as the learner receives the concepts, ideas or information. According to Jonassen (1991), objectivist learners believe that they must be told about the world and are expected to replicate its content and structure in their thinking. With this in mind, this programme put them in a new context and required them to adapt to a different teaching style. Some of them were worried, whilst others were not sure about their own productivity. The researcher's focus was on inspiring, motivating and encouraging them; she often spent a long time with a number of participants who asked for special support, which required much time and effort—even reaching beyond the programme timescale.

The researcher behaviourist teaching style was a challenge throughout the programme. This style of teaching works with the aim that information passed from a teacher to a student is basically the correct response to specific stimulus. This means that teachers often instruct their students using a linear step-by-step approach (Entwistle, 1981). However, the researcher's new educational experience reminded her at all times that she is not a behaviourist teacher anymore, but that she was capable of giving her audience the opportunities to share, think and learn independently. Furthermore, she designed her materials and presentations ensuring they were attractive and would encourage thinking, analysis and criticism, all of which required hard work and effort. She continuously attempted to achieve advantages of prevalent attitudes in the culture in order to distribute much knowledge and more communication and sharing. She knew that her people love stories, and so she allowed them to share stories, and she made and shared her own to help them gain more knowledge in an enjoyable way.

4.4.3. Third Stage: Feedback Day

At one time, this was a nightmare to some participators who were less confidence with ICT tools and presentation skills. In order to enhance the contribution levels, the researcher allowed two of the participants to create their own ways of participation without using ICT tools. Twenty participants attended this last day and 9 presentations were delivered, moreover, each couple was responsible for providing 15-minute presentations in order to highlight their conceptions of IL. Importantly, before the programme started, 90% of the participants claimed that they did not have presentation experience, which would pose big challenges which they were not ready for; however, surprisingly, by the time that the feedback day arrived, most of them were willing to take on this challenge and accordingly achieved impressive works.

4.5. Conclusion

To sum up, this chapter was presented in order to provide a brief background about the IL training programme provided to the Syrian school librarians. The chapter discussed the benchmarks which influenced the programme design and development. The researcher argued that the pilot programme was clearly useful in terms of improving the actual programme's productivity, and also in removing weaknesses from the materials and design. The actual programme was implemented in three stages: Eat the elephant; Digest the elephant; and Feedback. Each stage had its own unique targets and aspects, and required the

researcher to invest different levels and types of effort and attitude in order to enhance the participants' contributions. Once the programme was completed, the participants returned back to their school libraries to practice for three months, and then phenomenographic interviews were conducted. The findings of the first phase interviews are presented in Chapter Five.

CHAPTER 5: Variation in Ways of Experiencing Information Literacy: Phase One

5.1. Introduction

This chapter introduces the overall findings of the first phase questions which were mainly three questions supported by wide ranges of supplementary questions (see chapter 3):

1. What is your concept of information literacy?
2. How would you describe the information literate student?
3. How would you describe the information literate librarian?

Furthermore, it discusses how the categories which emerged were interrelated in structural relations and what roles the dimensions of variation played to combine and separate those categories.

Thus, the categories which emerged from the first phase will be outlined at the beginning of this chapter and secondly illustrations to these categories as an outcome space with characteristic quotations from the transcriptions referenced as (SLn) will be provided. The following sections will be discussed in more details the type of the relations established between the categories and the critical aspects of their related dimensions of variations. In addition, a comparative analysis of the categories which emerged and the literature will be presented at the end of this chapter before the conclusion.

5.2. The First Phase Categories

In this section, the ways in which the school librarians experienced IL are outlined in a set of six categories. Conceptions which were produced indicate that the school librarians' different ways of experiencing IL was based on their initial awareness, understandings, knowledge and experience of the phenomenon of IL. Taken into account that the school librarians did not have any chance to conceptualize IL previously and they had not received any type of systematic learning about the concept. That is, the concepts which emerged genuinely reflected the school librarians' unique understanding and experience of the phenomenon. In other words, although, many school librarians experienced IL as a phenomenon, they did not

refer to the term IL; rather they used other terms such as deep reading, critical thinking or creativity.

In all the interviews and within the concepts themselves, a number of factors that derive from aspects of variations, present themselves as dimensions of variation in the context of the phenomenographic approach. These dimensions can be perceived as the main factors that influenced the concepts which emerged. The table below exhibits the concepts of IL paired with the focus of variations. It can be seen that the categories were structured and hierarchically combined in two different levels (more discussion in the later sections). Table (4) shows the categories which emerged in order from least to most complex.

Table 4: Dimensions of variation and IL of first phase categories

Category	Dimensions		
	Context	The role of the student	The role of the librarian
A-Using textual (printed and electronic) information to solve practical problems	Information	Information user	Information specialist
B- Using computer and Internet	Digital	Digitally fluent	Technical supporter
C- Using Library	Library	Library's user	Professional librarian
D- Performing duties	Workstation	Productive Student	Productive employee
E- Innovating new thoughts and knowledge	Human behaviour	Creative human	Innovation coach
F- Living successfully	Life	Knowledge's seeker	Knowledge facilitator

5.2.1. Category A – IL is Using Printed And Electronic Textual Information to Solve Practical Problems

In this category, the focus is on being able to easily and quickly find and retrieve textual information which refers mainly to printed textual matter and in some cases electronic textual information, whether they are articles, books and magazines. The librarians who adopted this concept emphasised that the main idea is the ability to search, find and retrieve information located in the library's collections as well as information published on the Internet:

IL is the ability to search and find information. I mean the ability to retrieve textual information from available information resources within the library such as books, magazine and ..... Hummm........ For sure from the Internet also. (SL14)

SL 6: IL, IL is the ability to use information, search, find and retrieve.

Interviewer: What do you mean by information?

SL6: information is texts which are published on Internet or on books, newspapers or may be on a leaflet.

Information according to this concept is the main focus which was clearly presented in interviewees' statements as specific context. The word information reflected written texts (explicit) such as printed or electronic articles, books and magazines, as well as tacit (which someone could acquire by learning experience). Therefore, finding, retrieving and practicing information are all essential actions to use access and evaluate information.

IL is specific skills that someone should apply to find required information. It is the ability to search for information and retrieve it easily and quickly. (SL2)

IL means to me my ability to practice information which I have learned at the university to organize my library collection. (SL5)

Information is genuinely useful and powerful when someone can use it to improve the practice. In contrast, information is inconsequential when it is unable to provide any actual support to real world practise.

I think real information is this which I can practice because information which I cannot use in practice is useless and it doesn't mean anything to me because it did not help me in practice.(SL14)

From the perspective of other school librarians, information is powerful and useful only when it is real and it is real when it leads to enhance the practice and allows the development

Information must help in improving practise. If it did not it would not be information because information is power and the power means the movement. (SL9)

SL 2: Why do you think our schools libraries are backward?

Interviewer: I think you are the one who supposed to answer (laughing)

SL2: (laughing) of course I am, I think because we did not receive real information. In the university most of we received was theoretical information which is not real.

Interviewer: Why do you think it is not real?

SL2: because it is not reflecting or solving the real practical problems. It is theories which were formulated by people who experienced different contexts, I mean different from us. Our information context is different. For example, our librarians use different set of information from school librarians who live in England.

The role of the student according to this category is referred to information user that is able to search, retrieve and use information quickly. Therefore, student needs to have an information searching strategy that enables him/her find the required information , in turn , s/he should be aware of his/her information needs .

It means the student's ability to find a way or tactic which he can apply to collect the information he needs then grasp the benefit from it. (SL14)

I could distinguish information literate student from her way of searching and finding information. She can find her information very quickly. (SL6)

In relation to this concept a school librarian is described as an information specialist person who is able to organize, prepare and practise information for the user's benefits, mainly the students. In turn, school librarians need to be professional in organizing, managing, retrieving, creating and accessing information

The librarian's ability to provide information located in the library to the users. I mean the librarian's ability to organize information to enable the students to access it and gain the benefits from it easily and quickly. (SL6)

SL12: Well he is a craftsman.

Interviewer: craftsman in what, what do you mean by craftsman?

SL12: [pause] craftsman in making, using, organizing, retrieving and accessing information. A school librarian needs to know how to provide the best of available information.

SL7: A literate person is the one who can squeeze all available information to gain the best about of it. For example, we call a lady literate when she is able to manage her house resources, although, they are limited. She can gain the best out of the available resources without wasting; she can recycle her oldest child shirt to fit the youngest.

Interviewer: so how can you relate that to the school librarian?

SL7: it is the same, our school libraries resources are very limited and the funding is in the head teachers' hands. An information literate librarian can make from 50 information resources, say books, hundreds of other information resources by abstracting, asking students to create projects, making lecturers and reading books activities and so on.

5.2.2. Category B - IL is Using Computer and Internet

Whereas in category A the ability to find, manage and retrieve textual (printed and electronic) information was the core of the concept, the focus in this category is on the use of the computer to edit, organize and communicate. It is a tool that enables people use advanced communication technology such as Internet

It is an informatics term. I think it means the use of the computer ... The use of Microsoft words package including, Excel and Excess ... The ability to use, may be to create databases is information literacy. (SL7)

It is the tool that the human needs to interact with Internet. It is the 21st century tools that enable people communicate regardless the distances. (SL11)

IL within this category is described within the context of technology. It is the term which emerged as a result of the development and the growth of digital age; therefore, it is related mainly to the digital context

.... I can see information literacy as a tool enable the students networking, publishing and communicating online to gain more information. It is information technology tools that enable communication. It is enabler to use computer and digitize information. (SL3)

The role of the student, according to this category, is to be digitally fluent. The student should be able use computers and communication tools to find information he/she required

He is the one who can interact and use the new era technologies. He needs to know how to use the computer and Internet fluently to gain better information. (SL3)

The literate student is the one who can use the 21st century tools to collect information. He could use Internet to find a job, to shop and to get married... (Laughing).(SL7)

The role of school librarians, accordingly, is to be a technical supporter. S/He needs to have the ability to supply the school library with the required information technology tools and facilities. S/he needs to have skills that enable him/her find solutions to student's technical problems and teach them how to use the Internet and computers to use, organize and find information

The literate librarian is the one who is responsible to supplying the school library with the required information technology tools such as computers and databases. He needs to know what is available in the market and recommended them to the people who are in charge. He needs to have enough and appreciated technological knowledge. (SL3)

SL11: He is the person who can help the students' use information literacy tools in good way that enable them gain the best and complete usage of it. School librarian needs to know how to deal with student's technical problems and understand their technological needs.

Interviewer: what do you mean by information literacy tools?

SL11: I mean information communications technologies tools.

5.2.3. Category C - IL is Using Library Skills

The focus of this category is on processing a set of basic library skills such as searching for books and articles and advanced library skills such as managing library collections and using technology to interact and manage information. For the student, this category represents the bibliographical skills which are related to searching, finding, using library collections and using technological tools in the library to use information while for the librarian it is indicative of to describe library management skills including the ability to use available information technology to administrate the library.

Information literacy ... I think this term is a library-focus term. It is means the ability to use the library, to search for the books, find books and manage the library. (SL18)

I think the meaning of school library has changed, so, all related terms to school library also changed. I mean in the past we were calling the place where books were stored

organized and used a school library and we called the required skills to use that place library skills. Now school library is a centre where information and technology are available and required skills to use that centre is information literacy. (SL4)

The context of this category is the library. The library is the place where the students find their information resources to meet their information needs. At the same time, it is the place where the librarian can apply management and communication skills. That the school library contributes in different ways to students' experiences and skills as well as school librarian's experiences and skills

Information literacy as a term is not far from the library. It is the library's skills. For the students it is their ability to search, find and use library books and for the librarian it is his skills to manage the library successfully. (SL20)

SL5: Well, I think information literacy is a term that is related to the school library.... [Silent] it is the result of the interaction between library collections, student and librarians.

Interviewer: Sorry but I am not really sure what do you mean, can you explain that to me please?

SL5: Silent..... I do not know..... [Pause] students need the school library to gain benefit from collections located in it. School library to them is the place, which must be well organized by the librarian, where information resources are stored and collected for their benefits. School librarians must have considerable skills to manage, organize and administrate not only the collections but also the library. Information literacy is the link ... I mean the hidden link between librarian, collections and students. It helps librarian to administrate the library, collections to be organized and students to gain benefit from library. Can you see the relationship (laughing?)

Like previous categories, within this category, all textual, printed and electronic information are in focus. The librarian, according to this category is a person with management skills who can use technology to administrate the library. This means interacting with information and information technology is an essential skill to run the library business.

Information literacy is the school librarians' ability to manage the library. I think as much management skills the school librarian has as much as he is able to serve his students and manage his library. The school librarian who is lack of literacy is illiterate person because he could not perform his tasks and services on the optimal form. (SL5)

What the library would mean if it was a messy place. School library must be organized perfectly to allow students enjoy visiting the library. Today technological tools and facilities solve too complicated problems; old librarians used to stop hopelessly facing it. So, information literacy must include skills that help school librarians manage the library. SL9

Accordingly the students' role in this category is to be a professional library user who knows how to search and find the required books and information quickly and easily. That is, a student needs to be aware to his/her information needs and his/her skills must be in the same level that match his/her information needs

Information literate student is the student who know how to use the library, how to search on the shelves, where to find the books. I think her level of awareness to her reading needs is advanced. She knows what she wants, where to find it in the library and how to use the library collections. SL 1

SL3: that is a good question. Information literate student is effective user; he can use the library collections effectively to meet his needs. He knows how to invest any available facility in the library to meet his needs

Interviewer: what do you mean by effective user, can you describe this more please?

SL3: huuummm... effective users. I will explain it in my way

Interviewer: Please do

SL3... (Silent).There is an Arabic proverb says "this person knows from where to start eating the shoulder" This means that person have the required knowledge to know from where to start and where to end. Effective user is the student who knows from where to start searching in the library, how and what to gain and where to finish and how to present. He has his map to know the way (laughing).

The role of the school librarian, according to this category, is presented as a professional librarian. Unlike, previously categories, school librarians need to know how to run the library for the benefits of the school. Managing and organizing the library, according to this category, means the ability to classify, lend, store and save the library collections as well as using technological tools to manage the library services

> *You can consider him from his library. He is well organized and tidy person. He is able to develop his library services. His students are able to reach to their required books easily. He knows how to use Dewey classification system to classify his library's books. He knows how to keep his library collection safe and tidy. (SL9)*

5.2.4. Category D- IL is Performing Duties

The focus of this category is on acquiring a set of attitudes which are required to achieve work's activities effectively. The primary key factor here is the human ability to perform duties in the way which satisfy other individuals involve in the same context and to meet the employers' requirements

> *Information literacy is the ability to do the job perfectly. A literate house wife is the lady who can do her house's work perfectly. She is able to make her family, husband and children all happy and satisfied. (SL7)*

> *We are all, I mean in the schools, working under the umbrella of the Ministry of Education. Therefore, identifying the meaning of information literacy is not the staff responsibility rather it is the Ministry of Education (laughing). You need to ask the Minister of Education what he thinks information literacy means (laughing). As an employer all I have to do is what I have been told to do, I do not have to create. (SL18)*

According to this category, the main focus was in the workplace as the context. Participants usually used the term work to reflect their official duties despite the nature of those duties. Attention is largely given to individual's role in, and engagement with, his/her work's environment as a context where information literacy is required.

> *Information literacy is someone ability to do the work's duties, whatever the work is, successfully. The literate farmer is the famer who knows when, what and where to plant the seeds also when to harvest the output. People who are committed to their works, do*

their job perfectly and as they have been asked to do are information literate .Those
people understand the game roles and play to win. (SL 8)

The role of the student within this category is to be a productive student. The student needs to know how to achieve academically in order to be able to attend the university which becomes a dream for low skills students. Therefore, the greater emphasis was given to study skills, rather than IL. For example, being able to adopt effective questioning processes, gaining high marks, and developing good understanding and communication within the classroom, which is the students main work environment, is IL

> *I think the information literate student is the student who is tactful, committed to his*
> *classroom; writes his homework; asks his teacher to clarify unclear lessons, he can meet*
> *the deadlines without problems. He is the one who can achieve his studying duties*
> *perfectly. (SL16)*

A few school librarians saw the idea of being information literate as not going beyond the classroom setting. Information literate student is a student how can achieve the relevant duties as required by acquiring the suitable academic skills and competencies.

> *The student at the end of the day is a student; I mean his job is to be a student. You need to*
> *know that being an information literate student in our school means to be able to deal with*
> *a huge amount of complicated information overloaded in the curriculum and textbooks.*
> *Today, our kids are under pressure to achieve high marks to be able to study in the*
> *university which became the dream of high standard students so what do you think about*
> *low standard. In my opinion, the information literate student is the one who can get high*
> *marks, achieve his academic work and meet the teachers' requirements without causing*
> *any headache to anyone including the parents. So he doesn't need to be creative but*
> *rather hard working and keen. (SL 5)*

Being productive was clearly a goal for librarian also. Commitment, self development, self-motivation and hard working are all attitudes must be a main part of information literate school librarian who is, according to this category, a productive employee able to develop the required skills to meet the challenges and changes in the school library field.

> *I think an information literate school librarian must be self-motivated and hard working*
> *person. Both attitudes are very important to create the characteristics of an information*

literate librarian. He must be able to develop his skills as the new market requires. For example, as a school librarian, I know that the most important information about school library is published in English; therefore, I must improve my English to be able to update myself. To learn how to access Internet to gain the newest information about the school libraries services worldwide must be one of the most important skills the information literate school librarian must have.(SL 17)

Being active, open minded and good communicator are also significant attitudes to be a productive employee as well as information literate

SL1: I think information literate school librarian is a messenger and his library holds his messages. To be able to distribute these messages to his community the school librarian must be able to love, understand and communicate openly. (Silent) he needs to learn how to adopt and follow the regulations and at the same time perform his work in perfect way. To be productive you need to be active rather than creative

Interviewer: well how productivity is different from creativity, could you explain that?

SL1: oooohhhh, productivity means achieving the duties during short time with high quality while creativity to make something new, to innovate something, you wanted to achieve and that takes time. I mean as an employee you need productivity rather than creativity. These are two different levels. Does that make sense to you? (Laughing)

5.2.5. Category E - IL is Innovating New Thoughts and Knowledge

The ability to provoke thoughts and create new knowledge is the main focus of this category. Unlike, the previous category innovating, creating and developing new knowledge rather than achieving duties was seen as a key.

I think information literacy is related to human ability to innovate and create new knowledge. (SL4)

Well, (silent) ... it is, it is, hummmm, it is creativity. I mean, it would mean to have innovative and creative ability to produce new understanding and knowledge. (SL13)

Innovation for this conception's holders represented someone with the ability to experience and adopts a high level of human behaviour related to the behaviour of creativity. Creativity, according to this category, is a set of human actions aim mainly to produce, create and

innovate knowledge. Therefore, the human behaviour of creative people includes types of actions which are different from people who do not have this sense of creativity.

Information literacy …. Ump …. It is the human innovation behaviour to create new thoughts and ideas. Not all humans are the same. Some people can see what some others cannot. I might see blue as a colour, while a creative person will see it as a rich element to innovate and make new products. (SL15)

SL19: Well, I think you are asking about a term which has great meaning.

Interviewer: Why you said that, how do you know it has a great meaning?

SL19: (laughing) you can tell can't you... I think the term presents the sense of creativity.

Interviewer: what do you mean?

SL19: I mean I have a feeling that it reflects the human actions.... may be behaviour to create and innovate

Unlike, the previous categories, students, within this category, should have advanced attitudes that enable them to create and produce new products rather than achieve good marks. They are creative humans able to use their skills and experiences to create new knowledge not only to answer question or solve problems.

It is the students' ability to innovate and create. An information literate student seeks knowledge for the purpose of knowledge not to solve the assessment problems. They want to discover the world more than answering the teacher's questions. Knowledge to an information literate student becomes a need not a luxury. The life to them would not be complete without that knowledge. I think that is the power of the human innovation systems. (SL15)

SL6: Information literate students, they are very rare.

Interviewer: why?

SL6: Because to be information literate, students need to know and to learn how to be creative, to have the sense of creativity and to have the gene of creativity (laughing). Believe me you cannot find such student in our school, which killed not only the creativity but the gene of creativity.

SL10: I met some of them; you can tell or... (Silent)I can describe them as creative pupils who are able to create something from nothing. I used to have few one of them, used to recycle her friends' old cloths to make very fashionable dolls' costumes. I remember that she won a universal competition in Sweden two or may be three years ago. I think that girl could be called an information literate person because she was able to create and innovate

The school librarian within this category is an innovation coach. S/he is the one who can encourage students to innovate and create. S/He must be the one who has a regular touch with students. He should understand the student's problems , difficulties , concerns and wishes then show them the possible approaches to overcome all those barriers and how to seek the opportunities for the future.

The information literate school librarian could be the students' godfather. Did you watch that film? (Laughing) The Godfather in that film was the man who was able to bring the whole family together in spite of difficulties. He loved his family members, supported, and communicated, understood, listened, coached and scarified for them. It might be too much what I am talking about but why not. I see information literate librarian able to play similar role may be not with the same attitudes (laughing). (SL15)

SL1: I have an image but maybe it is not the same image you wanted.

Interviewer: just describe your image and do not worry about me (laughing)

SL18: Information literate person must be a human; I mean he must have the humans' sensibilities and attitudes.

Interviewer: what do you mean by humans' sensibilities we all have humans' sensibilities do we not?

SL18: No.... (Silent) we all have humans' shapes but not sense.... (Silent) to have humans' sensibilities means to have loveable and merciful heart, open mind, wide horizon, knowledge, patient, and clear visions. To me , information literate librarians must have all these attitudes and more because he is not only interacting with students, teachers and people but also he is interacting with efforts of hundreds of people spent may be a big part of their lives creating knowledge and addressing it in books.

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5.2.6. Category F- IL is Human Ability to Live Successfully and Effectively

The focus of this category of IL is on acquiring the required ability to live the life effectively, successfully, happily and comfortably. The understanding to the conception here is boarder and deeper. IL here is not related to information, digital, library, work, human behaviour but it is a holistic application of life.

> *Information literacy is the core of the life. Everything humans can do, any activity any work is information literacy. I am reflecting my own view. Maybe I am reflecting my ability to understand the life. I do not know (SL10)*

The holders of this conception view the life as the context where IL must be applied. IL in this context is an enabler for a better life; it is more than a module which was designed for students and academic institutions. It is a module that teaches individuals not only the required skills for the 21st century but also for life.

> *Information literacy is all about life. An information literate person must love what he is doing. He should know how to practise and reflect theory he has learned in academic places into the real life to solve actual life problems. Learning theory is not enough, he needs to know how to sort out real life problems. (SL19)*

> *SL10: We are all eager to be happy; happiness in life is the only thing which all humans from different, backgrounds and ages look for. Information literacy could help people in achieving that happiness.*

> *Interviewer: why, why do you think that?*

> *SL10: Why, huuummm, why because it is the key to understand life, to make a productive and successful life. Obviously, to enjoy living the life; it gives you the hints to answer the difficult questions; to find solutions for complicated problems.*

Being a seeker of knowledge is the role of the student within this category as it perceived by concept's holders. The focus here is on the student's personal ability to produce knowledge from previous knowledge to solve real life problems. Life within this category should be the space where the student could apply what s/he has gained, experienced and learned. Accordingly a student is not confined to academic or career-based activities, but s/he is open to a greater, more holistic conception. Likewise, the focus is not on achieving success in

using, searching and communicating information, but rather on effectively becoming a knowledge seeker.

SL10: An information literate student is eager to knowledge's knows instinctively that knowledge is the key for a better life because he is aware that life is created by human knowledge and will continue by human knowledge. You know that the first Quran verse is (O Beloved!) Read (commencing) with the Name of Allah, Who has created (everything). Why do you think that was the first verse and what do you think Allah wants to tell us, I mean as humans?

Interviewer: well I'd prefer it if I you could give the answer?

SL10: reading here doesn't mean to read from an open book because there was no book, but it means that humans must read everything that surrounds them to learn and gain knowledge from it. This makes knowledge the key for life. An information literate person must have knowledge to be information literate. When he/she is information literate he can live and enjoy the system which Allah created, I mean life.

Within this category, a school librarian is the knowledge facilitator who is able to locate knowledge but not information resources. An information literate librarian needs to know where to find that knowledge, how to search for it, who is holding it and how to use it to improve his/her, life and other peoples' lives.

I have been working as a teacher and a librarian for more than thirty years. When I was a teacher I read a lot of books, I met different types of people, I heard many stories, and I have taught different students with different styles and backgrounds. My knowledge comes from all these channels; it is the result of my interactions with everything around me for more than thirty years. My knowledge is my treasure which I use to improve my life as well as anyone involved in my life lives. (SL11)

A normal school librarian knows how, where and when to find information but information literate librarians knows where and how to find knowledge and who is holding it. (SL8)

Information and knowledge are two different things, information is everything written and published while knowledge is every experience we acquire or gain. To create information

you do not need the same efforts and times you take to create knowledge. What I need to say here is the main role of an information literate librarian is to know who is holding knowledge and to find way to put that knowledge in students' hands to develop their lives .(SL3)

In summary, it is evident that, improving peoples' lives in this category is the main object of IL. The relationship between IL as a phenomenon, students and school librarians combined in the context of life and knowledge is the key. Although the main role of the school librarians is to facilitate established knowledge, information literate librarians are also responsible for encouraging people to share tacit knowledge which means extending the meaning of IL to reflect key aspects of knowledge management issues and principles. The section below provides more details about how the relations between the categories could be interpreted further.

5.3. Reading to the Relations between The Categories

Although the researcher in the above section attempted to show both the critical aspects of each category and some aspects of the relationships between the categories, the focus was on describing each category and combining the relative characteristic quotations from the transcriptions. Thus, in this section, the main aim will be discussing how the relations between the categories which emerged can be read. The relations between categories will be described as two different levels; the first level will focus on the logical overall relations between the categories and the second level the focus will be on the relations between the critical aspects of the categories and their associated dimensions of variations. The aim of the researcher from presenting those relations is to show the type of relations and how it dimensions of variations influenced the emergent of conceptions.

5.3.1. First Level: The Structure of The Outcome Space

The overall categories discussed above, from A to F, have different and complex aspects which influenced the ways which the phenomenon of IL were described and experienced. The categories structurally developed and hierarchically constituted based on focuses and meanings given by the school librarians. Therefore, the change in structure and focus is related to qualitative change in the meaning of IL. It is notable that two main levels of relations were demonstrated throughout all the six categories; the first level combined A, B and C while the next level combined D, E and F. Nevertheless, at the end, all the categories

were combined together as one particular structure which described the outcome space (diagrams). The section below discusses these relations in more detail.

5.3.1.1. Relations between Categories And Structure

5.3.1.1.1 Introduction

The following sections present the relations which emerged between the six categories. It is significant to mention that two levels of relations were distinguished; the low-level includes the first three categories and the upper –level includes last three categories.

5.3.1.1.2. The Low Level Categories

The relations between the category A, B and C are inclusively presented in the figure (17)
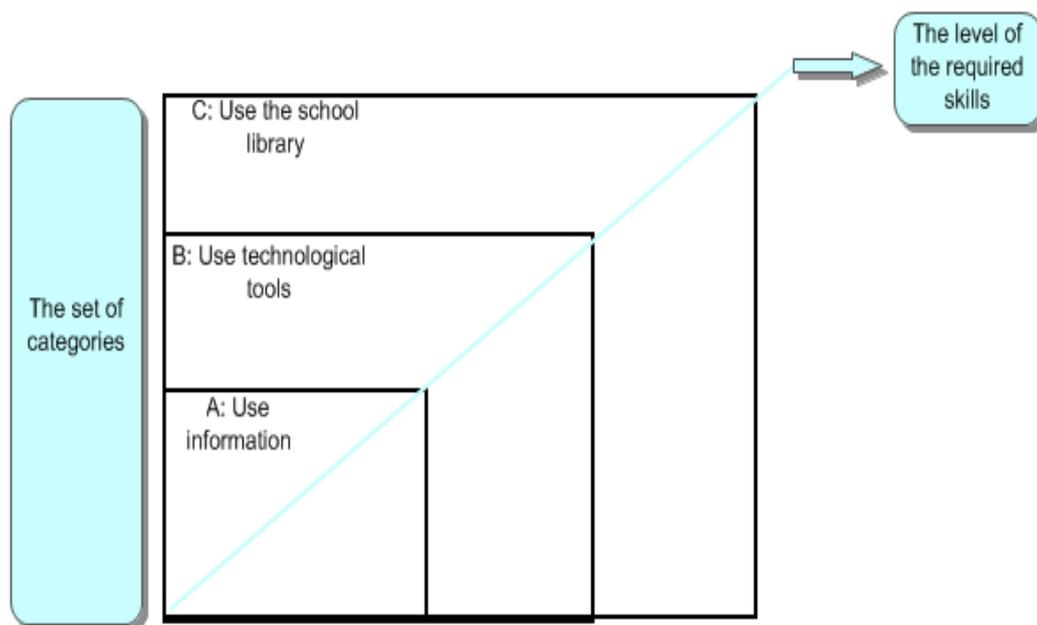
Figure 17: The relation between the low level's categories as they were distinguished

As can be seen, the level of the required skills was the main factor which influences the hierarchical structure of the categories. That is, the meaning of IL appeared developed based on the librarian's understanding of the nature of the required skills to achieve a specific concept of the experience. It was found that the meaning of IL grew and became more holistic as the level of the required skills become more complicated. According to category A, the core of information literacy meaning was using information which included retrieving, searching, and practising activities. Accordingly, an information literate person should acquire the required skills to enjoy that experience and to achieve the required activities.

Therefore, the level of the required skills to achieve the experiences' activities is uncomplicated. Furthermore, although this category indicated the need to use electronic information as part of the experience, the focus was on the skills required to search for and find information rather than digital skills which are expressed more visibly within the category B. Therefore, the richness of the experience seemed to be much less than the experience in later categories.

The same can be true in reflecting on the relations between categories B and C. Although IL in category B meant using technological tools to acquire better values which required more complicated skills than category A, such as communication via technology, the meaning of interaction did not go beyond the tools themselves. Therefore, the technological tools and information became two faces for the same coin. The experience of using technology, accordingly to the school librarians within this category is the sum of IL. Therefore, category B was located after and included category A and before category C.

According to category C, enjoying the experience of using the library included categories A and B. This means although category C presents a new concept, which is using the library, using information and using technologies were main aspects of that experience. The new concept of IL to the individuals who adopted this category would not be complete without integrating experiences from category A and B. The amount of experience and the required skills to enjoy that experience noticed to be greater.

5.3.1.1.3. The Upper- Level Categories

The relations between the category D, F and F are inclusively presented in the diagram (18)
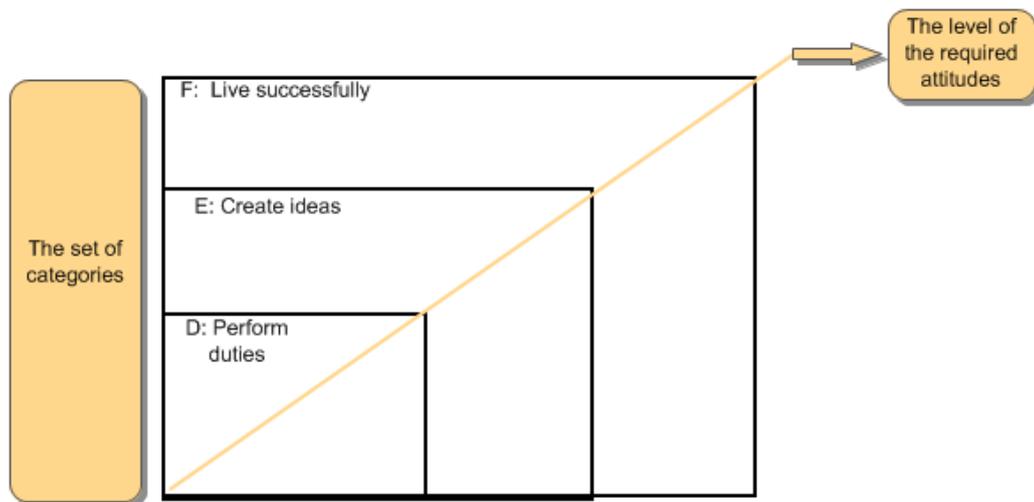
Figure 18: The relation between the upper-level's categories as they were distinguished

According to category D, E and F, the level of the required skills extend to a new level of the required attitudes. IL is described as a key to enable better productivity, effectiveness and success, therefore, the experience of IL according to these categories required more than skills; it required attitudes which lead to actions.

> *what we need to think about is more than a skilled person who is able of or may be capable of doing something... we should think about someone who has the sense of making things perfect. (SL 19)*

IL is not only a set of skills required to enjoy a specific experience; it is also required a set of attitude to enable the holder to achieve, perform, innovate, create and live more effectively and successfully (figure 18).

> *As I said before.... not all people could be information literate, I mean in the way I thought about, information literate is someone who has the attitudes rather than abilities to create and do stuff successfully. (SL6)*

These activities are actions required effective contributions and understanding, though, in different levels according to the contexts. *A literate person is literate everywhere.... but on the sense of.... (Silent)... may be the position or I mean according to what is required* (SL7).

If you thought about it, it is not skills or more specific skills. Someone must have the motivation to be literate; you need to have the moral of being literate.... of being creative. (SL9)

In category D, the nature of the experience is different and more complex from the first three categories because the meaning of the experience went beyond the library boundaries to a more complex environment where the phenomenon could be experienced. According to this category, the level of required attitudes should not be high because the main concern is to achieve the duties, therefore, being self-motivated and commitment, for example, could be main attitudes to perform the duties successfully but not being creative.

In category E, the nature of experience growth and the complexity increased. The main concern is to achieve the action of innovation and to provoke knowledge, thereby, the level of the required attitudes also increased. Creativity according to this category reflected the person attitudes toward creating and innovating without being told, unlike, category D, where people are able to perform perfectly but, solely what they have been told to do.

According to category E, the nature of the experience became holistic and more inclusive to include life itself. The phenomenon, according to this category, is a holistic learning, teaching and practising approach; it is an approach for life. Its main actions are learning, creating using and producing knowledge, hence, the main attitudes is to have human being sense and to be able to create successful life.

To sum up, although two different levels, low and upper were distinguished, the relations between categorises in each level seemed to be hierarchically combined. Thus, the categorises were hierarchically structured but into different levels diagram (19)
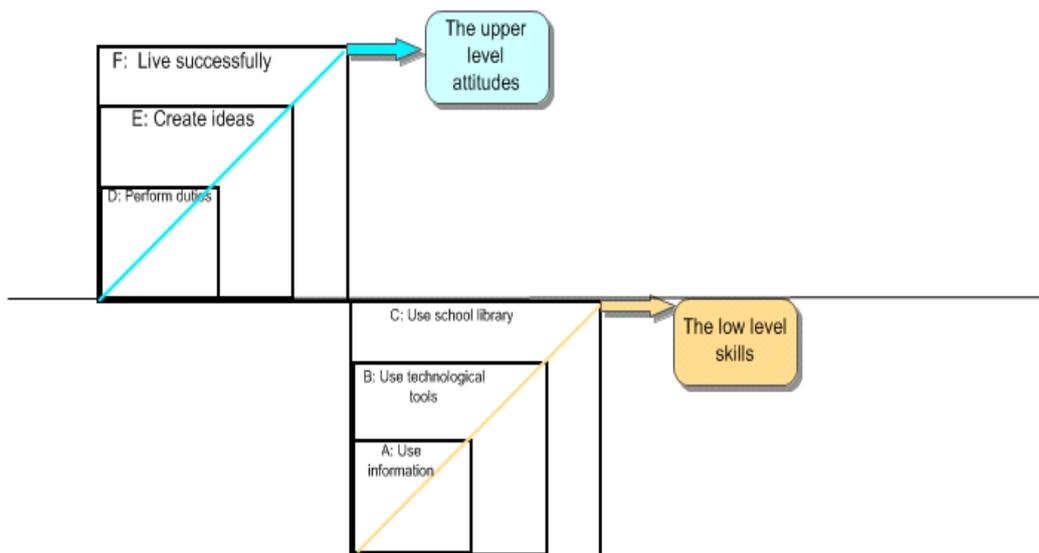
Figure 19: The relations between low -level and upper-level categories

5.3.2. Second level: Critical Aspects of the Categories and Dimensions of Variations

The interpretations of experience regarding IL imply a pattern of critical aspects which together form the presented structure and conceptions of IL. For school librarians to understand the meanings and the concepts of IL they need to simultaneously discern and focus on the critical aspects of the different contexts of the experience and the roles of both the librarians and students according to that context. To achieve this they need to understand the variations of the IL phenomenon according to the corresponding dimensions. In another words, the roles which dimensions of variation were played to combine and separate the categories. The section below provides more detail.

5.3.2.1 The Roles of The Dimensions in Combining and Discerning Categories

With reference to the previous table (4), three dimensions, context, the role of the librarian and the role f the student, were presented as a part of the whole structure of the outcome space and they played a vital role in discerning the categories. Thus, like Samuelowicz and Bain's (2001) and unlike Mackenzie (2003), each dimension of variation is represented in each category and has a considerable influence on the concepts which emerged. However, the values and the natures of the dimensions (librarians' role, context and student's role) were different regarding the concept .Owning to this, the critical aspects of all six categories is related to the context and relative roles but in different levels and horizons.
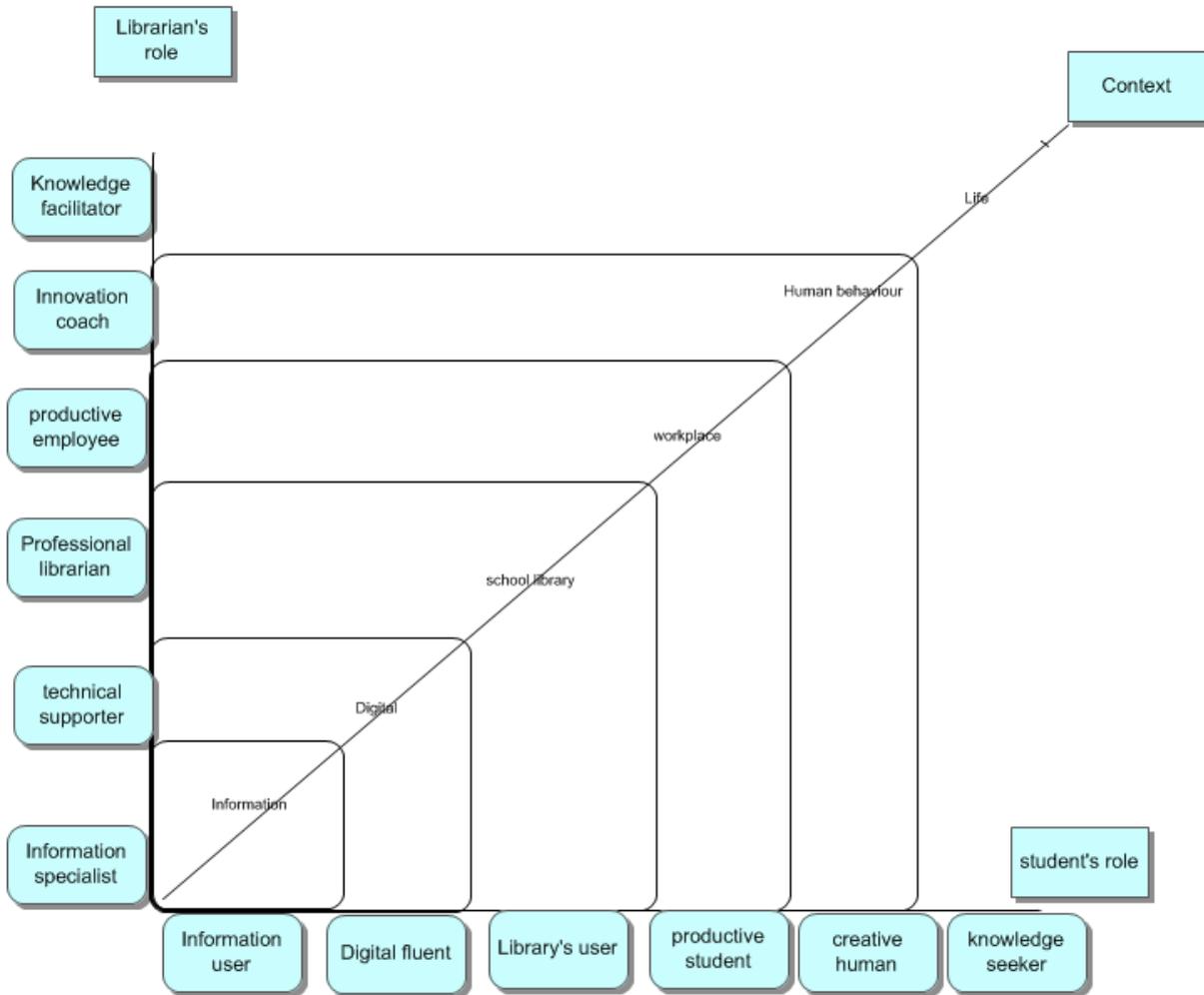
Figure 20: The influences of dimensions of variations on categories

As can be seen from the above diagram the three dimensions of variations played significant roles in discerning the scope and the horizons of the experiences. In category A the focus was on the context of information, where information is a limited term reflected textual printed and electronic information. The role of the students and librarian according to this category within that context will be only limited to that context. This means they do not need to have more than abilities to search, find, provide, organize and use information.

In category B the context is the digital tools, therefore, IL is an *informatics tool,* essential to use, find, retrieve and interact with information. The context is larger, therefore, the role of the students and the librarians is more complicated and as mentioned in section earlier requires more skills and abilities.

Category C focuses on the context of the library which includes the technological tools and information. Accordingly, the role of the students and librarians involves more elements and skills, as it was previously discussed.

Category D the main focus is the workplace context. The main element is to achieve the duties and to gain the satisfaction. Playing the role effectively to increase the possibility for productivity and the produced quality can be construed as vital. The context here is more complicated, many elements are involved and further actions are required. Skills are not enough in this context because the player needs to have personal attitudes to achieve the required level of the experience.

Categories E and F focuses were border and the horizons of their scopes were greater. The main focuses are life and the individuals who interact with life. The context according to these two categories extended to include a human as an active creative individual who is able to seek, produce, provide and facilitate knowledge to contribute more successfully to life.

It is interesting to mention here that the roles of the student and librarian harmonized. That is, librarians and students must work cooperatively to attain the meaning of IL regardless of the context.

To sum up, it was discussed that dimension of variations have played a vital role in discriminating and combining categorises which emerged hierarchically. Therefore, they were able to combine upper-level and low level categories in one set but with different aspects. Furthermore, in the sections above, the researcher discussed and described the findings which emerged from the first phase interviews of this study; however, no further discussion was presented to compare the findings with current IL conceptions. This discussion is the focal aspect of the next section.

5.4. Selected Studies from the Literature

5.4.1. Introduction

This section presents a comparative discussion of the findings of this phase with other significant research studies conducted in the territory of IL. In order to achieve this comparison, the researcher selected three different studies:

- Seven Faces of IL (Bruce, 1997): This study was selected because it was the first study which conceptualized IL and adopted the phenomenographic approach.

- IL in the classroom: secondary school teachers' conceptions (Williams and Caroline 2006): This study was selected because it is the only other phenomenographic IL study conducted within a school context.

- A phenomenographic study of English faculty's conceptions of IL (Webber, Johnston and Boon, 2006). This study was selected because it derives a relevant and significant data from higher education context which has similar attitudes to this study context.

5.4.2. Comparison with Seven Faces

Bruce (1997) conducted a phenomenographic study to discover the conceptions IL in higher education institutions in Australia. The study enabled the discovering of seven different conceptions of IL. Key differences exist between this phase and the Bruce study are noted in table (5)

Table 5: The key variables between Bruce's study first phase categories

Variables	Seven Faces (Bruce)	This phase approach
Country	Australia	Syria
Participators' position	Academic staff	School librarians
Context	Higher education	School
Sample size	60	20
Data collection methods	Varied (interviews , mail responds , email responds , and seminars discussions)	Semi-structured dialogue interviews
Data collection period	1994-1995	2008-2009
Research type	One phase research	Two phases research
Research approach	Phenomenographic	Phenomenographic
Findings	Discussed below	Discussed below

As can be seen from the above table, there are clear differences between Bruce's study and the current study. For example, while Bruce's data collection methods were varied, the researcher in this study depended heavily on semi-structured in depth interviews. Furthermore although, the sample positions were different between Bruce and the current study, both studies aimed to represent a border rang of perspectives. For example, for this study, the school librarians had different backgrounds and they were selected from different

age groups and genders. The same is true in Bruce's study. In terms of findings, the similarity and differences are discussed in section (5.4.2.1)

5.4.2.1 Comparison of Bruce and Current Phase Findings

It is important to state that from Bruce's faces only those which has correlation to those in this study were selected and compared

Table 6: Comparing Bruce's conceptions and first phase categories

General meanings	Bruce conceptions	Current study conceptions
I: Information technology conception	(Face1). "Information technology conception" Focused on using ICT to acquire and retrieve information (1997, P.117)	B: "Using computer and Internet" Focused on using information technological tools to organize and search for information, organize library and communicate online.
II: Information use conception	(Face, 2) "Information source conception" and (Face 3) "information process conception ". Focused on finding information located in information resources and accomplish a specific process to make information accessible to user (1997, P.117.118)	A: "Using textual (printed and electronic) information to solve practical problems ".Focused on retrieving, searching and using textual digital and printed information located in the school library information resources.
III: Knowledge conception	(Face 6) "The knowledge extension conception" and (Face 7)" the wisdom conception". Focused on using information to create new information and to benefit others (1997,P.119)	E: "Innovating new ideas" and F: "live successfully ". Focused on innovating new knowledge from previous knowledge to improve quality of life and to contribute more effectively to other's lives.

5.4.2.1.1. Discussion

I: Information technology conception: Although both conceptions focused on using ICT for communicative purposes, this study conception extended the meaning to use technology for management and administrative purposes. This might be a result of the position duties where librarians need to achieve administrative work while academic staffs do not. Furthermore, the level of required ICT skills in the current study appeared to be changeable regarding the

context and holders. For example, when the context was information, ICT skills for school librarians and students were limited while in a digital context required ICT skills became more complicated. This means ICT conception is not only related to this specific conception but it alters as the conception changes.

II: Information use conception: According to the Bruce study, it is apparent that her conceptions of information source and information process include limited conceptions to the meaning of using information in terms of required skills and materials. In other words, while school librarians in this study were able to distinguish different actions to use information, Bruce's samples were only able to distinguish two main actions; findings and executing. Moreover, as school librarians were able to distinguish different type of textual information resources, Bruce's samples were not able to distinguish any. Furthermore, searching information and acquiring strategies to find and use information did not feature in Bruce's conceptions.

III: Knowledge conception: According to Bruce's study using information was the core of both conceptions (knowledge extension and wisdom) while in this study the focus is on how to use knowledge, rather than information. School librarians in this study were able to distinguish between information and knowledge. Information to them could be found in information resources while knowledge could be acquired only by experiencing and could be used to improve others' lives as well as personal life. Unlike Bruce, the new information is not the outcomes of using information and wisdom doesn't indicate using information wisely. According to this study, new ideas and thoughts are the outcome of using previous knowledge which is acquired during life and wisdom is to apply knowledge in order to live a fulfilled life.

5.4.3. Comparison of Williams and Wavell's Study and Current Phase Findings

Williams and Wavell (2006) conducted a study to discover secondary school Scottish teachers understanding of their students' IL. The main aim was to understand how IL was understood by teachers in relation to learning tasks and how teachers' understandings would change after a period of reflection and discussion with colleagues including information professionals. William and Wavell (2006) were able to distinguish six main conceptions of IL (table 7).

Table 7: Secondary schools teachers' conceptions of IL according to Williams and Wavell

Source: (Williams and Wavell, 2006:P.20)

Information literacy is conceived and described as:	
Finding information	Emphasis on technology and library, navigation of sources, e.g. Internet and/or books. to find and gather facts
Linguistic understanding	Basic listening and reading for comprehension, e.g. understanding instructions and/or task
Making meaning	Developing understanding by making sense of new information in a subject context
Skills	Focus on using a range of skills, techniques and strategies when handling information
Critical awareness	Critical awareness of sources and need for evaluation
Independent learning	Working independently with information, e.g. in research projects, less reliant on teacher input.

The key variable differences between Williams and Wavell and current study are listed below (table8)

Table 8: The key variables between William and Wavell's study and first phase categories

Variable	Williams and Wavell (2006)	This phase approach
Country	Scotland	Syria
Participators' position	Secondary school teachers	School librarians
Context	School	School
Sample size	31	20
Data collection methods	Semi-structured, group discussion and activities	Semi-structured dialogue interviews
Data collection period	2004-2005	2008-2009
Research type	three stages research	Two phases research
Research approach	Phenomenographic	Phenomenographic
Findings	Discussed below	Discussed below

As can be seen, there are a few differences between Williams and Wavell and the current study. For example, although the context within the schools in both studies, the focus was on discovering classroom teachers' conceptions rather than librarians or information professional. The size of the sample, the type of the multiple stages research, data collection methods and research approach can be claimed to be reasonably similar. A comparative analysis of findings are presented is a subsequent section.

5.4.3.1 Comparing William and Wavell to Current Study Findings

Table 9: Comparing Williams and Wavell's conceptions to first phase categories

General meanings	Williams and Wavell	Current study conceptions
Information use conceptions	"Finding information" +" making meaning" + "skills" + " independent learning" focused on having skills to handle information, finding information , facts, located in printed and electronic resources by using school library and technology and understand and make sense of new information	B: *"Using computer and Internet"* and A: *"Using textual (printed and electronic) information to solve practical problems"*. Focused on using school library and technology to search, retrieve, organize and communicate information.

5.4.3.1.1. Discussion

Although both studies were able to distinguish six different conceptions of IL, there are a few connections to be identified. For example, according to Williams and Wavell IL was seen as finding information, this concept found similar resonance in this study, but with limited actions. That is, while school librarians understood finding information as part of the main conception which is using information, Williams and Wavell presented *finding information* as a main conception; the aim is to find information and no further or more complicated actions are required. Evidently , teacher awareness of *"finding information"*, *"skills"*, *"making sense"* and" *independent learning"* conceptions did not go beyond having the required skills to find information located in information resources by using technologies and libraries to achieve academic tasks. Conversely, school librarians' awareness of the meanings of IL were more comprehensive and deeply distinguished that is, they were able to distinguish IL and an information literate in different contexts and characteristics. They were able to go beyond the school and library context to border life context.

5.4.4. Representations of English Faculty's Conceptions

Webber, Johnston and Boon (2006) conducted a study to identify UK English academics' conceptions of IL. These scholars were able to discover four different conceptions of IL (figure 10)

Table 10: English Faculty's academic staff conceptions of IL

Source: (Webber, Johnston and Boon, 2006, P.215)

Information literacy conceived as..	Contextual focus	Temporal focus	Media focus
Accessing and retrieving textual information	Particular research need (e.g. an assignment for a student, or a journal article for an academic)	Needed to answer an immediate need (e.g. for an assignment or presentation)	Traditional (primarily print; books, magazines, articles, etc.)
Using IT to access and retrieve information	Particular research need (e.g. an assignment for a student, or a journal article for an academic)	Needed to answer an immediate need (e.g. for an assignment or presentation)	Non-traditional (primarily electronic; online materials, multimedia, television and radio)
Possessing basic research skills and knowing how and when to use then	University and/or "real world" context	Needed throughout course of study, and potentially throughout the students' careers. For staff, these are essential career skills required for both teaching and research; as such they are taken for granted	Traditional with limited non-traditional (often confined to the library, or seen as "library skills", e.g. print materials accessed through OPAC or online journals)
Becoming confident autonomous learners and critical thinkers	Wider information society context	Needed for life and participation within the wider information society	Traditional and non-traditional

The key variable differences between Webber, Johnston and Boon and current study are listed below (table11). As can be seen from the mentioned table, although the context country and participants' positions in Webber, Johnston and Boon study were different from this study, the size of the sample and the type of the data collection methods were similar. Furthermore, it is clear that the most significant differences between Webber and colleagues study and this study is the type of the research, because this study was able to distinguish two different set of categorises which emerged as a result of two different phases while Webber and colleagues aimed to distinguish only one set of categories.

Table 11: The key variables between Webber, Johnston and Boon study and first phase categories

Variable	Webber, Johnston and Boon (2006)	This phase approach
Country	United kingdom	Syria
Participators' position	Academic staff	School librarians
Context	Higher education	School
Sample size	20	20
Data collection methods	Semi-structured interviews	Semi-structured dialogue interviews
Data collection period	2003-2004	2008-2009
Research type	One stage	Two phases research
Research approach	Phenomenographic	Phenomenographic
Findings	Discussed in the next section	Discussed in the next section

5.4.4.1 Comparing Webber and Colleagues to the Current Phase Findings

Table 12: Comparing Webber and colleagues conceptions to first phase conceptions

General meanings	Webber and colleagues	Current study conceptions
Using technology conceptions	"Using ICT to access and retrieve information" focused on using ICT to acquire and retrieve information	B: "Using computer and Internet" focused on using computer to organize information and Internet to retrieve , find, search and communicate
Retrieving information conceptions	"Accessing and retrieving textual information" focused on acquiring information located mainly on books	A: "Using textual (printed and electronic) information to solve practical problems" focused on using all printed and electronic textual information to solve problems
Research skills conception	" Possessing basic skills and knowing how and when to use them" focused on the need to adopt specific research skills to know how and when to use them	A: "Using textual (printed and electronic) information to solve practical problems" and "using library" both focused on adopting required skills to answer when and how questions
Independent learning conception	"Becoming confidant autonomous learners and critical thinker" .Focused on becoming and being a capable of making effective, wise and meaningful use of information	F: " Live successfully " focused on using knowledge to contribute more effectively to live and to become a fulfilled human

5.4.4.1.1 Discussion

1. According to table (12), while, the focus of Webber and colleagues ICT conception was on using ICT to acquire and retrieve information, much emphasis was placed on this study regarding the necessity of ICT tools to communicate and organize information. Unlike the Webber and Bruce studies, school librarians were able to link the usage of the technological tools to improve the library services and perform library duties. It could be the case, as mentioned before, that school librarians need technology to run a library business while academics do not.

2. Although academic and librarians were able to differentiate textual information from other, academics were not able to distinguish printed from electronic. It can be deduced that, they simultaneously perceived them as textual. Furthermore, a significant amount of attention was paid from Webber's samples to accessing and retrieving information, while school librarians were more aware that retrieved or accessed information can be used to solve practical problems.

3. It is interesting to observe that searching and having strategies to search were identified in different meanings in different contexts in this study. Therefore, they could be found interrelated in two different conceptions. While in the Webber and colleague study the concept of having and processing required skills to search information identified only one conception. Furthermore, academic staff were not aware of the need for strategies to search as the librarians were.

4. Although becoming confident and autonomous as a learner and critical thinker conception do not readily compare with this phase findings and it is a significant point of departure, some elements the " live successfully" conception is evident, but the connection is tenuous. For example, while the key aspect of "live successfully" in this study is being able to create knowledge and use it to contribute effectively to life that meaning did not exist in Webber and colleagues. In contrast, while the meaning of the independent learner did not exist in this phase finding, in Webber and colleagues it was evident. The main link of both conceptions; therefore, is only the elements of social responsibilities and contribution. Thus, IL for both was extended to go beyond the academy. The focus of this conception in both studies is on becoming able to think critically and independently to make the most effective, wise and useful use of knowledge or information.

5.5. Chapter Summary

 This chapter presented the descriptions of all six qualitative ways of experiencing IL which emerged as a result of first phase interviews. The researcher at the beginning provided the outcome space meanings associated with characteristic quotations from the transcripts. The researcher then discussed the type of relations between different categories and how the dimensions of variations influenced the structure of the categories. The researcher created this chapter to discuss the answer of the first question of how the Syrian school librarians conceive the phenomenon of IL. According to Marton and Booth (1997), to become more aware of more complex way of experiencing a specific phenomenon, an individual needs to simultaneously discern and focus on the critical aspects of the way of experiencing that phenomenon by discerning variation in the corresponding dimension. Therefore, discerning critical aspects required understanding of the possible dimensions of variations, hence, they need to separate it from the context in which it is embedded in. However, according to the findings of this phase, context was a main dimension of variation. In other words, librarians were able to discern and describe the phenomenon as it was embedded in the context rather than separate. IL according to the school librarians could not be recognized outside of familiar contexts. The context of experiencing the phenomenon was the main critical aspect which the phenomenon was discriminated by. This means the awareness of phenomenon and its descriptions based mainly on which context the phenomenon was experienced in and the peoples' interactions with that context.

CHAPTER 6: Ways of Experiencing Information Literacy: Phase Two

6.1. Introduction

As the previous chapter discussed the overall findings of the first phase interviews and presented the categories –categories relations and categories –dimensions relations, this chapter aims, also, to discuss the overall findings of the second phase interviews . It is important to draw attention to the fact that the researcher before conducting this phase interviews, allowed the participants to listen to their first phase recording, and subsequently the next phase questions were asked. There were four main questions associated with adequate ranges of supplementary questions; the main questions were:

1. What are your comments on your conceptions presented in the first interview? Why?

2. What is your new concept of information literacy?

3. What is your new concept of an information literate librarian?

4. What is your new concept of an information literate student?

In accordance to chapter five's structure, this chapter will firstly present the categories which emerged from the above questions; secondly illustrations of the categories will be presented. And thirdly, the outcome space associated with characteristic quotations from the transcriptions referenced as (SLn) will be outlined. The following sections will discuss the relations between the emerged categories and the dimensions of variations. The researcher will compare this phase of findings to the literature. A compression between the categories which emerged from this phase and the conceptions introduced by the researcher at the training programme will be conducted at the end of this chapter before the summary.

6.2. The Second Phase Categories

This section of the chapter presents the ways in which the school librarians described their new experience of IL phenomenon after attending an IL programme and undertaking practical experience in their schools for a full school semester (see chapter four). Unlike the first phase, school librarians before this phase received systemic IL training. Thus, the categories which emerged at this stage reflect the conceptions of people who practically trained and experienced IL in the real world.

Similarly to the first phase interviews, a number of factors, which are the aspects of variations, present themselves as dimensions of variations in the context of the phenomenographic approach. These factors are the main factors which impacted the creation of the categories. The table below shows the new seven categories of IL paired with the focus of variations. It is significant to mention that the categories which emerged were not structured hierarchically, rather it arranged as they emerged to avoid any interference with the creation and structure. Thus, the categories are presented in chronological sequence (table 13). Furthermore, the philosophy beyond using Arabic Alphabet letters (أ-ب) in numbering the categories is based on the fact that although the data which collected for this study were presented in English, they were collected from Arab librarians using Arabic language. Hence, there is a need to add some Arabic flavour to the English texts.

Table 13: Dimensions of variation and information literacy second phases' categories

Information literacy is described as...	Information use focus	Cognitive focus	Inspirational focus
أ- Elite idea for outstanding people	Particularly for people who can use information to achieve better invention	Requires a higher order of thinking and larger intellectual capacity	Particularly for people who can reach to a specific spiritual level.
ب- Catalyst for change	required to change the common way of using information	Needed to change traditional ways of thinking	Needed to encourage people re-think of their faiths, feelings and values and to improve the acceptances of tolerant-values
ت- An illumination	Paves the way to achieve better practice	Illuminates people 's abilities to make the right decision	Enhances people's self-confidence and widens the horizons for unlimited possibilities
ث- Subject to the purpose	Subject to the purpose of using information	Subject to the learner's intellectual capacity level.	Subject to the learner's concepts and values
ج- Collaborative process	Required to use information collaboratively to make democratic decisions.	Required to exercise constructive criticism and productive feedback	Required to encourage people share to cultural aspects without domination
ح- Long-term process	Requires the use of previously accumulated information to produce new knowledge	Builds up students intellectual capabilities accumulatively	Takes a long time to be generated as a value
خ- A method to support an educational process	Required to encourage educationists to use available information to support students with different learning styles	Essential to support educationists to educate students to meet overcome challenges	Necessary to improve moral and values education and to develop a student's sense of tolerance and to eliminate all types of fanaticism.

6.2.1. Category- أ- IL is An Elite Idea for Outstanding People

In this category the focus is on the idea that IL is an exclusive idea to specific type of people, that is, those who have extraordinary ability to create and innovate

> *I do not want to upset you, but I think information literacy is not a term which can be introduced in all schools for all students. Personally, I think this term is only valid for Creative Students Schools which are few in Syria. (SL18)*

> *I liked your programme of information literacy; it's a set of a number of creative and distinctive ideas, but the issue that I could not pin down exactly how we can associate it with our public school. Do you think public schools in Syria are able to apply information literacy with the current circumstances? Information literacy needs facilities, tools and trained people and more than this and that it could not be developed without a flexible and well informed educational system and curriculum. Information literacy is a unique term and it must be introduced in a unique environment to a unique people. (SL3)*

According to this category, creative people are the only people who can use information creatively. Hence, they are able to practice IL. Thus, the ability to use information for creative purpose is the core of this category.

> *It [information literacy] is all about how to use information effectively and creatively. For example, some students would use information they gained from the school to write an essay while other they would use it to make a creative product. Both of them had the same information but one of them was information literate and used information creatively and the other did not. (SL8)*

> *I see [information literacy] differently now; I can say, it is ...... the ability to use information to enjoy the experience of creation and innovation. (SL13)*

> *Everyone can use information, but there are a few who can use information to create new things, those individuals are information literate and they are rare not only in our schools but everywhere, I told you before creativity is a gene and only a few have it. (SL6).*

Within this category, participants perceived that IL is related mainly to intelligent people's cognitive ability to learn quickly and effectively. It is mental skills which require advanced mental-ability. Therefore, indicating that mental image of a person is the main scale which shows an individual's capacity to be information literate.

> *Information literacy is valid only for intelligent pupils who are able to learn quickly and effectively; they know how to use their capacity and mental skills intelligently and efficiently to learn, work and create.   How many of our students do you think able to do that? In our school, for example, there are more than 600 students and I can guarantee that no more than10% of them are able to effectively practice information literacy. I think information literacy is only for outstanding, intellectual and creative students. (SL9)*

IL is not only a unique idea for creative and outstanding people who have advanced mental skills and capacities but it also requires people with advanced inspiration values to be able to understand its values and meanings. IL according to this category was interpreted as a method that inspires people to transfer information beyond the materialistic meanings to experience the spiritual values of information. It thrives on encouraging people respect the moral value of information.

> *SL11: to be honest, every time I thought about information literacy I concluded to the same point.*
>
> *Researcher: and what is that point?*
>
> *SL11: it is [information literacy] for those people who have inspiration and foresight. I do not think that the availability of libraries, information resources and tools are the keys to exercise information literacy. What I think will create successful information literacy in our schools is open minded people with inspiring ideas and thoughts.*

Furthermore, a few school librarians argued that to give the actual meanings and conceptions of IL both cognitive and spiritual sides of IL should be highlighted and reflected.

> *SL12: Some of my colleagues during the programme focused on the idea of linking information literacy with intellectual capacities. Frankly, I do not agree with their opinion.*

Researcher: Why?

SL12: huuummm…. although our children need to learn practical and intellectual skills, they also need to learn how to inspire information, thoughts and ideas. They need to know how to deal with everything around them in a spiritual sense. To me, the course, inspires me as well as improves my analytical and practical skills. I think information literacy is about transferring information from its material level to a spiritual and moral level, and this in turn requires people who are able to reach that level and, frankly, not everyone has this capability.

Moreover, to extend the meanings of IL beyond the cognitive scope, a school librarian perceived that embedding a new moral system that encourages the respect of the spiritual value of information as well as the cognitive value is vital to help people experience and understand the implied spiritual meanings of IL.

SL3: I could metaphor information literacy as police man (laughing) who is able to save and protect public values and morals. (Pause) but unfortunately that is not always true.

Researcher: What do you mean by that?

SL3: [Silent], I mean... information literacy would not be able to play the police man role if the moral system where information literacy was implemented did not respect its spiritual values ... [silent] if those values are respected by principles, information literacy will have the chance to survive.

6.2.2. Category- ب- IL is a Catalyst for Change

According to this category, IL was seen as a fundamental condition to promote change to the traditional ways of practising information as well as to the traditional ways of thinking about information and dealing with it.

I've found it [information literacy] associated with the concept of change. To change ideas and to change the way of finding, searching and using information is also to bring change in ways of thinking. Then [silent] it is a new term that has emerged as a result of the change in the information environment and a change in the way of learning and teaching. (SL10)

Attention was mostly paid to the possible role of IL in promoting change to traditional ways of using information. It is significant to enable people see, understand and use information in different ways to improve real world practice.

> *It (information literacy) makes me think about my practical behaviour, I mean why I am applying and using information way I do. It teaches me how to approach information with a diverse perspectives... and possible usages. (SL 6)*

> *I can use information more effectively now... [Silent]... I can use it much better. The idea of information literacy has changed my way of thinking about images, diagrams, sounds, colours and events as information and how I can use this information to enrich my ideas and thoughts .(SL14)*

> *As I mentioned in the first phase, the university course provided us only with theoretical knowledge so, we were struggling all the time in practice; I think it [information literacy] was able to guide us on the practical side. It helped us shift our knowledge from the theoretical stage to the practical stage; I know better now how to use theoretical information to achieve better practice. (SL7)*

It was apparent that promoting change in peoples' cognitive state is one of the main focuses of this category. Accordingly, IL was perceived as enabler to change traditional ways of thinking not only about information in its meanings and usages but also in promoting change to their cognitive way of thinking regarding every aspect in their lives.

> *I always believed that education is useful because it improves our abilities and practices; the idea of information literacy added to the concept that education can also change us. The idea of information literacy has changed my way of thinking. To be honest, my husband is really surprised. He told me "we have been together more than five years and I tried hard to change your rigid way of thinking and this lady came in ten days to do that " . Although, I highly appreciate your talent and ability which really impacted on me positively but I cannot deny that the idea of information literacy itself has changed me, as it opened my eyes to a world that was unknown to me. (SL14)*

Some school librarians were able to identify a new territory of awareness to the meanings of IL in the context of change. According to them, IL encourages change in the way of thinking as well as the way of the feeling about information. Information can be texts and can be

expression of dissatisfaction expressed on our kids faces .Being information literate is this context involves someone ability to understand information expressed in any setting to improve communication and social interaction with religion and culture.

SL17: Well, I have a different feeling now.

Researcher: Which feeling?

SL17: the feeling that something has changed. [Silent] yes I have changed.

Researcher: Why do you think you have?

SL17: because of your ideas about information literacy which inspired me and allowed the change to come through directly to my heart

Researcher: that sound great, but can you explain more to me please?

SL17: I was a very strict Muslim, though, I have not ever thought about that, I mean why I am like that… [Silent] I knew that being a strict person made some people worried and unhappy especially my daughters who really suffered as well as me. The communication between us was very bad... we did not even used to talk [Silent]. When you told us that information is not only a text and it could be everywhere, maybe in our kid's expressions. And you're ideas about communication and how to listen carefully to understand the information that people try to pass to us made me feel bad because I realized that I was something wrong, but I was unable to figure it out. All my focus went to the religion corner and I started to analyse and evaluate my previous knowledge about the religion where did I get it from and how did I build it.

Researcher: then what did you find?

SL17: I found that most of my previous knowledge about Islam was culture-based not real knowledge based

Researcher: what do you mean by that?

SL17: I mean that I got most of my knowledge from people's mouths who were all the time frustrated me from Allah and all questions about the religion were forbidden, thereby, I grew up as extremist not religious [Silent]. Information literacy inspired me and helped me see myself and my religion in different way. Now I read Quran slowly

and carefully and read the interpretation to understand the meanings associated with the spiritual verses. I have started reading and searching and seeking information from everywhere, many ideas have changed and my heart also has changed because I am now holding new understanding of Islam and life.

The school librarians in this phase was not only able to adopt or link the idea IL to changes but they were able to access and analysis the aspect of the change in their previous experiences

SL6: [As soon as we finished listing to the first phase interview, the interviewee said]. *It is really amazing how that changed me, I mean did you listen to my voice; it was weak, slow and quiet as if I was tired and bored or may be fed up of something.*

Researcher: maybe you were fed up of me (laughing)

SL6: well, I was not fed up I was afraid

Researcher: Why?

SL6 : because of "why" questions (laughing) then can you believe that as soon as you left me I started to ask why she is asking me why? (Silent) … then I think I was too much focusing on my thoughts more than your questions. Now I can hear every word you are saying not just you but also all people around me. Before my internal voice was very loud, I remember now, one day my daughter told me mum you do not listen. (Silent), information literacy taught me how to listen; it helped me to leave my own box and feel, see and think out of it.

6.2.3. Category –ت- IL is An Illumination

As well as IL was perceived as enabler for change, was figuratively evoked as a light that illuminates people's thoughts, souls, morals and minds.

Well if you asked me to locate information literacy I would locate it in the middle. It radiates light that enlightens our thoughts, our souls, our minds and our morals. (SL5)

According to this category, IL is an illumination because it allows people to see different aspects to the meaning of using information. It allows individual to discover the possible ways to apply information for better practice and to achieve better expertise.

As I was in a black cloud, my brain contained a big amount of theory , literature and thoughts but I did not know how to put all those in practice , how to do a better job and to provide better services, how to break the routine and make a new start . It gives me the hints ....[Silent], no not only hints but ... it illuminates my way to achieve better practice (SL9)

SL11: Our students need to learn how to shift theoretical knowledge they hold to practical application. They have to learn before leave education how to use information effectively and how to put what they have learned into practice.

Researcher: how do you think that could be applicable?

SL11: by teaching them that information literacy is not a module they need to pass but it is like the candle which they need to hold everywhere, all the time to light their way [silent].They need to learn how to make their life ,information literacy –based, rather than, pass module-based, if I could call it that . We have to teach them how to link the idea of IL to every single activity they do in their life.

Accordingly, IL illuminates peoples' minds to discriminate between decisions they are faced with and enables them to make the appropriate choice.

The world of information is too messy, rough and difficult to control. Information literacy is the aid to survive that mess [Silent]. To me, information literacy is the candlelight which someone can hold to walk through that mess and be able to reach a satisfying result. It is a light that helps our brains discriminate right from wrong, bad from good, lightness from darkness. (SL5)

It encourages people make their future plans feasible, because it allows them see the possibilities as well as the threats. They will have the clear vision which allows them make the right decision.

After I understood and experienced information literacy, I have become more capable to make my decisions. My dreams became more feasible. Information literacy has enlightened my insight. (SL13)

The core of this category is based on the idea that IL can play a vital role in inspiring people to appreciate and acknowledge other people's perspectives and ideas. It could be claimed that it can be a vital guide to set a new system of moral code necessary to the current social and political climate.

It opens my eyes to new horizons which I did not experience before as I was blind. I was not able to see anyone except myself, my thought, my ideas and my life. Information literacy is to think out of the dark box and to see the sunlight. (SL10)

I think we need to think seriously about re-modifying and re-evaluating our moral systems. We need a guide, we need a light … hum, it could be that light which show us the way to do that. (SL17)

6.2.4. Category –ث- IL is A Subject to The Purpose

According to this category IL is understood as a purpose-based phenomenon. This means IL must be provided to meet the context and people who are involved within the requisites of that particular context

It is not a ready recipe which our schools could use to educating information literate (SL5)

Syria is a mosaic of different religions cultures and has complex social and class compositions. Overlapping the application of this term without taking these factors into considerations, in my opinion, is hazardous (SL10)

Using information as IL recommends, according to this category, would not be available where an educational system is text book-based and where the main purpose of using information is to pass the exam not to acquire independent and diverse knowledge.

SL6: I do not think we need it (information literacy) in our schools

Researcher: why?

SL6L: because our students do not need to use information in the way that information literacy suggests; all our students need is to learn how to memorise their text books and pass the exam. 90% of our students use information in text books to pass the exam not to produce a new knowledge, thereby, the idea of information literacy to them would not be that important.

The validity of information approved during the real use of that information. For example, as a previous teacher I used to assess my students' understanding to the information I provided by answering the exam question, I mean by using the information I gave to pass the exam. They do not have to be creative rather they have to have a good memory. Information literacy must be taught where the education system allows students to create knowledge not memorise information (S17).

The cognitive state of the individual is a significant element of this category. In another words, IL could not be provided at the same level to meet different individual's requirements. Cognitive capacity must be studied before making any serious application of IL.

SL18: Not all students have the same level of mental capacities. Do you think that the term could be offered to all in an identical concept?

Researcher: what do you mean; can you explain more, please?

SL18: assume you have two sick kids and both of them need the same medicine; are you going to give them the same amount... (Silent) absolutely not, information literacy is exactly the same, you cannot give all students the same treatment, and you need to give them what they need.

Understanding the student's cognitive states will help the educationists provide and instruct IL to meet each cognitive level. IL should not be provided to all students at the same contexts and levels, nevertheless, the cognitive needs of each level must be acknowledged earlier. In some occasions individual cases must be considered which means individualize information literacy to meet individual's needs and cognitive capacities.

SL3: I think the basics of information literacy could be the same; it is possible that the overall picture is one, but the details must be provided differently based on the

situations. I do not want to go extreme and say that every case must has its own application, although, this is possible, as far as I remember you did that in your programme. Yes, you provided the group with the same overall picture of the concept but you were able to re-modify the level based on the case.

Researcher: but there were only a few of you.

SL3: that is what I meant by not being extreme. So we need to study our student's level of literacy then divide them into groups and provide them with information literacy based on that so there is no ready recipe.

It is not only understanding individual's cognitive state that is vital for this category, but it is also significant to consider and acknowledge the cultural and spiritual background of the context where IL is targeted to be embedded. IL must be provided to correspond with the cultural, spiritual and moral values of the context.

SL1: Do you know what I liked about your programme?

Researcher; no sorry I do not know, would you tell me?

SL1: well I was really happy that what you provided matched our culture and faiths. I knew from what you said that you based the principle of Western theories of information literacy but I felt the Eastern spirit was site there. What I am trying to say here that information literacy must be provided to meet our needs, our culture and people's needs.

6.2.5. Category – ح- IL is A Collaborative Process

According to this conception IL requires collaboration between all members involved in the educational process including pupils; therefore, understanding the meaning and value of collaboration is vital to embed IL successfully in Syrian schools.

You cannot guarantee that information literacy is embedded in the school successfully without assuring that a sense of collaboration is secured. In other words, the people who are willing to present information literacy in schools need to learn how to cooperate and communicate first. (SL1)

It is shared efforts; I mean applying information literacy needs full cooperation and understanding between all the people who are involved. Actually, you need to teach

our students, teachers and librarians in addition to the people who make the decisions how to collaborate and communicate before thinking about implementing information literacy. (SL17)

Collaboration can be achieved, according to this category, by using all available information to make plans and to identify needs in terms of information usage and applications.

It [Information literacy] could be applicable if we work all together to discover our student's needs. [Silent], we need more access to information, I mean information related to our students that we can use then design information literacy programme that meet their needs. (SL10)

It [information literacy] gave me a wide ranges of hints how to use information collaboratively to meet my students' needs. I can see the value of sharing and creating good relationships with colleagues who could benefit from my information as well as I benefiting from theirs. (SL1)

It is not the product of individual thinking, but needs intellectual cooperation from the specialists to determine the general features and then details can be identified individually. (SL10)

To maximize intellectual benefits from teaching IL, it should be introduced in a collaborative atmosphere. Learners should be allocated sufficient freedom to share, express and experience intellectual criticism.

One of the most beautiful ideas I liked in your programme was to have a mix in the same group of all male and female, old and young, and specialists and non specialists. This action gave us the opportunity to share and exchange idea, understand each other and exercise constructive criticism and interact comfortably. In my opinion this is the core of information literacy. (SL6)

The other main significant focus of this category is regarding the notion that the IL concept could not be reached effectively without collaborative sharing from all the people who are involved in the educational process. The world of IL is where everyone has an

equal opportunity to share thoughts, exchange and introduce ideas. Furthermore, team working should be the central focus.

> *Well, your programme enables me conceptualize information literacy as an art. Yes it is an art; the art of teamwork, which allows everyone to participate in the painting without a single dominating colour. (SL16)*

6.2.6. Category- ح- IL is A Long-Term Process

According to this category, IL is a long term process which requires maintaining responsible strategic plans; examining the school's needs. In addition to allowing the sufficient time and the necessary effort

> *It takes time, regardless of the process and paper work time; understand the concept of information literacy and the context of the concept takes time. It is new concept in our schools and we need to examine it before applying it. It is not a one term job; it is a long term duty. (SL10)*

Implementing IL requires planning, strategies and efforts

> *It is not an easy job, as I see it; it takes time, effort and long term planning. (SL15)*

The focus of this category is on the idea that IL is not short term information which someone could use to satisfy specific needs or to answer particular questions rather, it is something someone can hold, use and need lifelong.

> *Information we use and learn today is the stock for our future knowledge. So, information literacy is not something we learn and use today rather, it is something we will use for ever as far as we live over the dust. (SL6)*

> *If you think about it, it is [information literacy] not something we need and learn today for today, it is something we learn everyday for all days. (SL1)*

Time is the most vital element to educate information literate student who is able to practise and apply IL, according to this category. IL is a necessary component of a pupil's everyday cognitive learning process.

> *I do not think you can educate an information literate person in day and night or even during a course or year. Listen love, I think this is a long process because what we*

need is not how to teach students to become information literate but to make them information literate and there is a big difference. Information literacy must run with their blood, to be planted in their brain. It becomes a need more than a luxury. (SL2)

Accordingly, embedding IL in society is a process that requires considerable effort and persistence. It must be presented as a component of the social system, hence, it would require a significant period of time to be accepted and implemented

[Silent]… information literacy is a long journey, I should start it from the beginning; it is like a faith, culture or may be a moral. Being information literate is not a modern adjective which we need to add to the society to suit this era, but the human him/herself must be information literate. (SL20)

6.2.7. Category –خ- IL is A Method to Support The Educational Process

IL, according to this category, is able to support the educational system and all related learning goals. It is a flexible learning method which helps educationists and decision makers to improve the quality of the learning and educating students for the future markets without major change in established educational strategies.

SL5: these days, education is the most critical process; because schools educate students for tomorrow while tomorrow is unpredictable. I mean, in the past, life's routine used to be quite and slow, thereby, educating the next generation was easier. Today, an individual lives as if he is in a race with life. Education needs updating every day and educationists also need updating at the same pace. Information literacy has the possibility to play this role with the hope that it would give us the chance to understand the new aspects of this era and cope with it.

Researcher: Why do you think information literacy can play this role?

SL5: Because [silent] [information literacy] improved my awareness to my students' educational needs. [Silent]….. For the first time, in your programme, I knew that teaching and learning have different styles, those, as I think, are a result of the diversities in the learning needs. .. I mean, as school librarians we need to be aware of our student's educational needs and understand the diversities in their characteristics. Becoming aware help us control, I mean, face the challenges, every day challenges.

Then it is very flexible method, you can apply it everywhere and anytime. It is a learning method but it is also fun.

This category focuses on the idea that teaching students how to use information that encompass the ability to evaluate, find, search and select which is the core of IL . Hence, contributing to the educational process and students' learning

I would say that it would be the key for better educational standards. It provides us as teachers with the required information we have to use to help our students find, search and use information more effectively. (SL9)

Learning about making strategies and setting plans to use and interact with information is a main component of IL which can enhance student's creative writing ability.

Now I can teach them how to use information in different ways to achieve better learning. How to set strategies to allocate, find, search and select information they would like to use to write better stories maybe. (SL17)

IL also involves teaching students the required skills to use and summarize information in different academic forms to achieve academic duties such as writing an assignment.

I think I can use information I gained much better, I can help student make better assignments because I know now that information can be used in many ways. For example .They can draw information as a diagram instead of writing 2 pages. (SL11)

Furthermore, educationists should be aware that changing the traditional concept of the school library to the new concept of a learning centre is vital to maximize the value from implementing IL to support the educational process. IL, accordingly, requires a free and open atmosphere where information can be used freely to support educational values.

The concept of the library has changed. I can now call it Learning centre where all students , teachers and staff can interact with information , use information and create knowledge freely and openly to serve the education goals.(SL5)

Facing the intellectual challenges, which the new era has introduced, and enhancing students' cognitive capabilities to meet those challenges are the main concerns of the current education climate. IL accordingly presents the opportunity to greater intellectual freedom.

SL11: Acceleration in the growth of human intelligence puts us as educationists in front of many difficulties. The most important one is how to develop our students' thinking and the educational process commensurate with the current challenges. Both students and teachers need support. Information literacy might be the key because it opens the horizon for a wider and safer information atmosphere and better information and thoughts usage.

Researcher: Can you explain more, I was not able to figure out what are you trying to say?

SL11: We need to teach our students how to think and learn. We need to allow them make the creative mess (laughing) mess is not always bad. In our school we kill the intellectual creativity by introducing our students to bureaucratic system of learning. Information literacy helps us break down those learning systems and encourage more intellectual freedom.

Although introducing the students to different types of spiritual education is vital to improve students' learning, education system has generally ignored this aspect of education. According to this category, IL could enable educationists to follow this ideology because it improves students' interpersonal communication skills.

SL8: I think that the more important thing which negatively impacted the educational process is to reduce the quantity of spiritual and humanitarian learning. I believe that we as human beings are s skilful blend of soul, mind and body. Education today ignored the soul part and emphasized the mind and body. Information literacy can open a new channel to rebuild those neglected parties in the education system.

Researcher: why do you think that information literacy could make that détente?

SL8: because it allows the students to communicate, share, listen to each other, and think about the life and their beings. It encourages the students to respect the moral, culture and religion diversities and acknowledge others efforts and learn from others mistakes.

To sum up, the previous sections provided detailed descriptions of the categories which emerged as a result of conducting semi-structured interviews to answer the main four

questions with a wide range of supplementary questions of the second phase. Furthermore, the researcher supported her descriptions with the associated characteristics quotations for the transcriptions. The following section aims to discuss the relations which were identified between the categories as well as the relations between the categories and dimensions of variations.

6.3. Characterizing The Relation between The Categories

The main aim of this section is to characterize and discus the set of relations between the categories which emerged from the second interviews. In accordance with chapter five discussions, the relations between the categories in this section will be characterized in two different levels; the first level will focus on discussing the overall relations between the categories and the main focus of the second one will be on explaining the relations between the critical aspects of the categories and their associated dimensions of variations.

6.3.1. First level: The Structure of The Outcome Space

The above overall categories, from ‌ ‌ أ - خ ‌ ‌ , presented the complex aspects which influenced the ways in which the school librarians described the experienced and understood phenomenon of IL. Although, all the categories which emerged described on specific phenomenon which was IL, three different types of relations between all these categories was discovered. The following section presents these relations in more depth.

6.3.1.1. The Hierarchy Relation between Change and Light Conceptions (An Illumination and Catalyst for Change)

This relation was identified between categories ‌ ‌ ت and ب ‌ ‌ . According to these categories IL was described as enabler for change and an illumination. It appeared that participants, within these categorise, were able to extend the concepts of IL to reflect abrader and more complex aspects of the phenomenon. Their awareness of different aspects of the phenomenon enabled them combine it to different contexts. They conceived IL as Catalyst for change because it has the aspects to help people change their lives, way of thinking, way of working and way of believing. It is the core of the life where the ability for regular change is vital. Hence, it is a light for those who want to learn how to practice, think and make better decisions. In another word, it is the candle for those who want to change (figure 21)
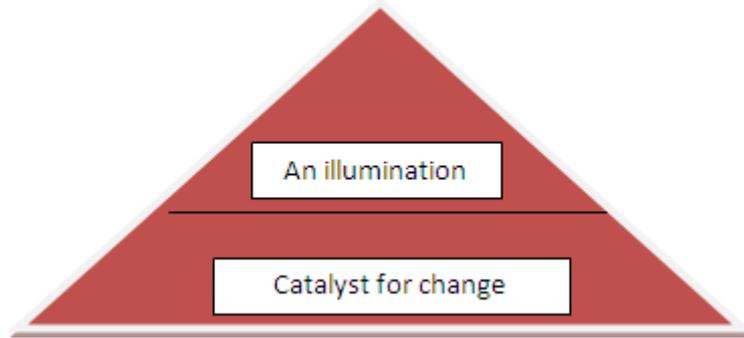
Figure21 : The hierarchy relation between change and light conceptions

6.3.1.2. The Combined Relation between Chain of Processes Conceptions (Long –Time Process, Collaborative Process and Method to Support Educational Process)

This relation was found between categories ج, ح and خ . IL, according to these categorise, was understood as a process or part of the process. It has been seen from a less wide perspective. This means, while, participants in categories ج, ح and خ were aware of the wider context and meaning, participants, according to ب and ت were not able to identify and realize IL out of the educational context. To them, it is a collaborative, a long and supportive process to meet the educational goals. Simultaneously, it is a collaborative process because it requires the intellectual and spiritual efforts from all educationists who are involved in the educational process; hence, it will be a long term process which requires plans, arrangement and strategies. Those processes are all should be made to satisfy and support the educational process.

Accordingly, although there is no explicit relation between light and change categories and chain of processes categories, a two directional tacit relation could be identified. That is, to work in a collaborative way to support educational goals, educationists need to be receptive to change and open to seeing the possibilities. This relation is a doubled direction relation because it is vital for educationists who would like to adopt IL conceptions of a chain of processes to understand and realize the meanings of change and light conceptions to be able to promote change to current practices and the opposite is true. This means educationists who conceptualize IL as change and light need to understand other interpretations of chain of processes to be able to contribute to their context effectively (figure 22)

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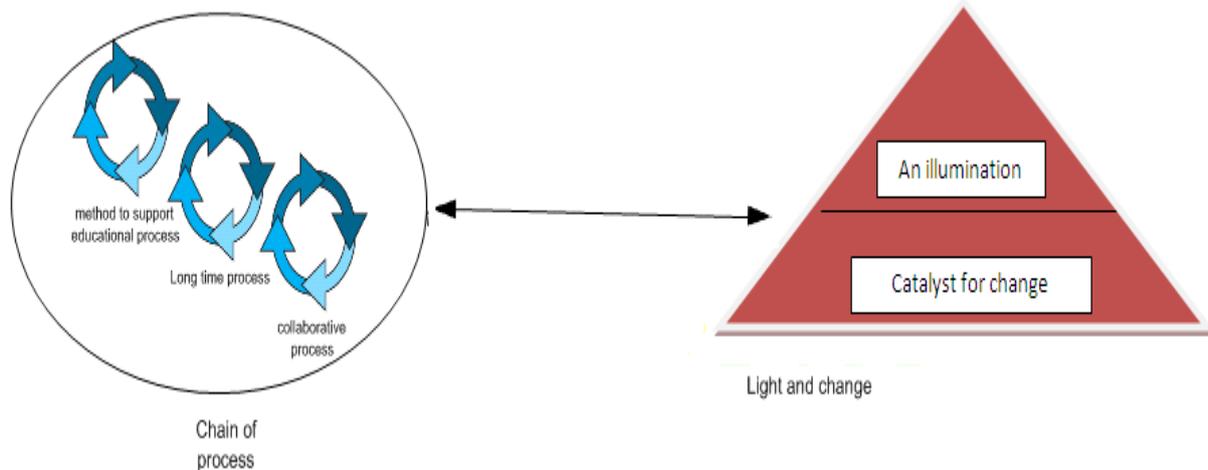
Figure22 : Chain of process and light and change relation

6.3.1.3. The Individual Relation Uniqueness (Subject to The Purpose and Elite Idea for Outstanding People)

This relation, or more precisely attribute, was apparent in categories أ and ث . According to these categories IL was perceived from a narrow perspective. The participants who experienced these perspectives were not able to alter the phenomenon to more than one subject around them. While, in category أ participants saw the phenomenon as relating only to outstanding students, in category ث participants stressed that IL needs specific requirements to be applicable. (Figure 23)
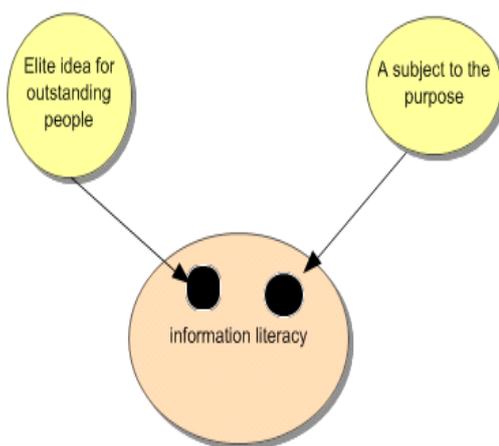
Figure23 : The individual relation

To sum up, the previous section discussed the types of the relations which were identified between the categories which emerged from the second phase interviews. It is important to

mention that three different types of relations were identified; the hierarchy relation that reflected the meanings of changes and illuminations, the combined relation which reflected the meanings of the processes which were seen to be related to IL and finally the individual relation that reflected the meaning of uniqueness. The following section will discuss the second level which presents the relation between critical aspects of the categories and dimensions of variation.

6.3.2. The Second Level: Critical Aspects of the Categories and Dimensions of Variations

As mentioned in chapter five, the meaning of each way of understanding and the perceptions of IL reveals that there is a pattern of critical aspects which simultaneously created the current structure and meanings of IL. In this phase, the school librarians were able to discern seven different meanings of IL. Furthermore, they were able to reflect the variations of IL according to the corresponding dimensions. In other words, the dimensions of variations played a vital role in combining and separating the categories. The next section aims to examine the types of relations which emerged between the categories and the dimensions of variations.

6.3.2.1. The Role of the Dimensions in Combining and Discerning Categories

As mentioned in a previous section, three dimensions of variations, information use, cognitive and inspirational, were acknowledged as playing a significant role in structuring the categories in the way they were presented and in discriminating and combining those categories. Similarly to the first phase categories, each dimension of variation that was presented in each category had a noticeable influence on the perspectives which emerged. It is important to mention that dimensions of variations were able to discriminate the categories which emerged sectorally and within the parameter of each sector all the categories which emerged are presented to reflect the meaning and the experience of IL. For example, reflecting the meaning of IL from the information use focus has not been clear if only the meaning of one category was indicated. Thus, it was decided that the categories should be simultaneously combined and introduced, to be able to reflect the meaning of IL literacy from this specific sector. In accordance with this relation the cognitive and inspirational focuses are also indicated in the same way. This mean to be able to enhance the application of IL from the cognitive and inspirational viewpoints all the categories which emerged were introduced as one set not separated. Furthermore, understanding and reflecting all the

meanings and focuses which emerged demanded the presentation of a more holistic approach of IL in order to meet the current needs of IL in a Syrian context. (Figure 24)
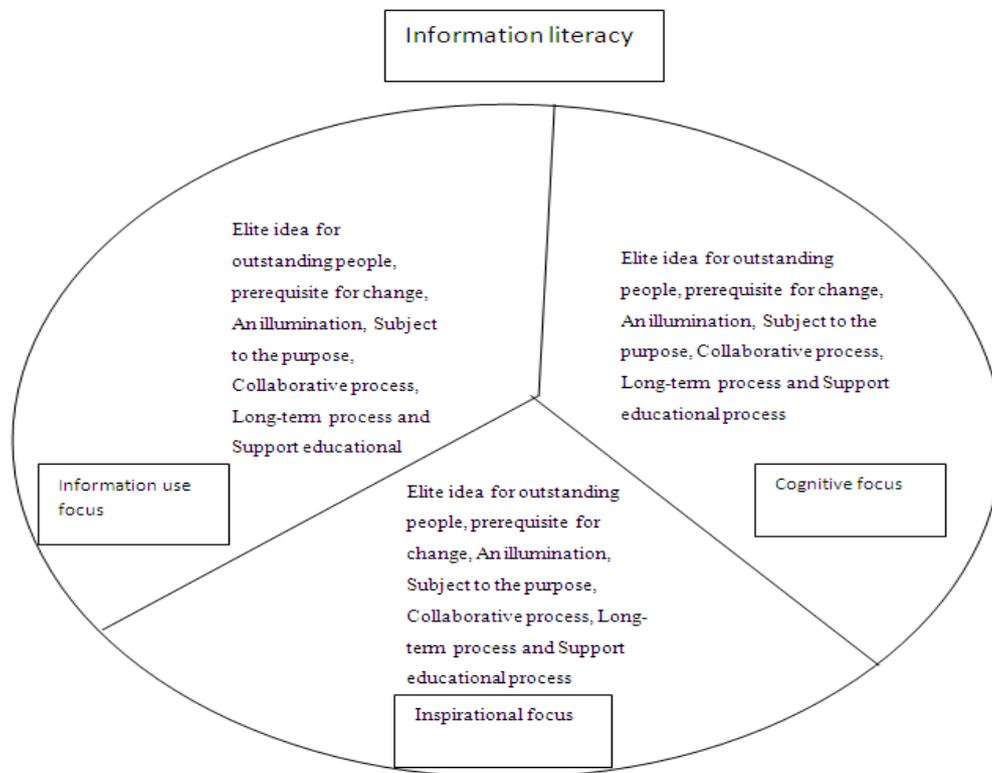
Figure24 : The influences of dimensions of variations on categories

As can be seen from the above diagram, the three dimensions of variations influenced the ways in which the categories were structured and discriminated. Notably, each dimension was able to discern an individual sector which included all the presented categories. Despite the fact that different relations were identified between the categories, each dimension was able to combine these categories as a one set of categories which reflect a specific focus. Therefore ,while the categories- categories relations discriminated the categories, the dimensions – categories relations combined the categories to be presented as a one set were required to be introduced together to reflect a specific meaning of IL . Moreover, combining and reflecting all of them consequently aim to provide a holistic approach to IL that reflects the Syrian school librarian's conceptions of IL. In the following section the researcher will compare the findings of this phase with the literature.

6.4. Comparison With the Literature

6.4.1. Introduction

As with chapter five, comparison in this section will be conducted regarding the findings of her the second phase with other relative research studies conducted in the territory of IL. In order to achieve this comparison, the researcher will adhere to first selection, which were: Seven Faces of IL (Bruce, 1997) IL in the classroom: secondary school teachers' conceptions (Williams and Caroline 2006), and (Webber, Johnston and Boon, 2006) works. The first two studies were selected because they were considered as the benchmarks of this study (see chapter five), however, unlike chapter five, the researcher in this chapter selected the Webber, Johnston and Boon, (2006) study which examines marketing academics' conceptions of IL instead of English to extend the scope of the discussion (see chapter five) . In addition, marketing and librarianship as subjects have the practical meanings of IL that academics at the English faculty were not able to identify in their conceptions.

6.4.1.1. Comparison With Bruce

As stated in chapter five, the study which conducted by Bruce aimed to investigate a group of Australian academic staff conceptions of IL while the researcher in this study investigated a group of Syrian school librarian's conceptions of IL (see chapter 5 for more detail). In accordance with Bruce's study, the researcher in this phase, merely identified seven main conceptions of IL (see earlier sections); however, the meanings which the categories reflected were different (table 14)

Table 14: Bruce's seven faces of IL which matched categories from second phase

Bruce's seven faces	Current study categories
Face 5: The knowledge construction conception	ب- Catalyst for change
Face 6: The knowledge extension conception	ت- An illumination
Face 7: The wisdom conception	ب- Catalyst for change + ت -an illumination

As can be seen from the above table, although the meanings which emerged in both studies did not exhibit any explicit correspondence, internal link can be identified between Bruce's last three faces and this phase ب and ت , in terms of the role which IL can play to promote change to the knowledge and values of individuals . Although Bruce did not explicitly state that, it is possible to interpret this concept in her descriptions to the faces. Furthermore, it can be seen that while Bruce's main focus in the first three faces was information context, the subsequent focus of this phase conception was on the education context. It could be claimed that this was due to the participants' career backgrounds which influenced the meanings of the experience. That is, they are academic staff in well established universities who interact regularly with information in different contexts which enriches their experiences and enables them reflect deeper conceptions and meanings.

Moreover, the researcher reflected the absence of the first four categories in the second phase categories to the change of the participants experience and awareness of the meanings of IL. It is evident that Bruce's initial four categories concur with this study first phase conceptions.

6.4.1.2. Comparison With Williams and Wavell (2006)

In reference to the discussion in chapter five, Although it was apparent that Williams and Wavell's research study is the closest document to this study, in terms of the context, the participant's educational background, the research methodology and the research approach as a multiple- phases research (see chapter 5 for more details), the findings which emerged from both studies have different interpretations (table 15)

Table 15: Williams and Wavell's conceptions compared to second phase's categories

Williams and Wavell (2006)	This phase categories	The position
1- Findings information	أ- Elite idea for outstanding people	No correspondence
2- Linguistic understanding	ب- Catalyst for change	No correspondence
3-Making meaning	ت- An illumination	No correspondence
4-Skills	ث- Subject to the purpose	No correspondence
5- Critical awareness	ج- Collaborative process	No correspondence
6- Independent learning	ح- Long-term process	No correspondence
-------------------	خ- A method to support an educational process	No correspondence

As can be seen from the above table, while Williams and Wavell identified six categories, the researcher in this phase was able to identify seven different categories. Furthermore, although the background of the research and participants were similar, no correspondences between the categories were identified. However, it is clear that the meanings which emerged in both studies mainly presented a reflection of educational context needs. Nevertheless, the researcher observed two significant reasons as to why:

1. While the Syrian school librarians received systematic IL training and education which influenced their experience and conceptions in the second phase, the teachers in Williams and Wavell study based their perceptions on generic definitions of IL phenomenon.

2. The nature of the careers, while a librarian's job involves more practical duties, a teacher's job involves requires more theoretical knowledge background which influences on the nature of the conceptions.

6.4.2.3. Comparison with Webber, Johnston and Boon (2006)

In chapter five, the researcher compared the findings of the first phase conceptions with Webber, Johnston and Boon (2006) conceptions which emerged as a result of studying the perspectives of academics in the English faculty. In this section, the researcher will compare

the conceptions which emerged from the interviews of this phase with Webber, Johnston and Boon (2006) conceptions which emerged from investigating academic staff perspectives in marketing faculty. Investigating marketing academics' conceptions of IL, is a part from a larger research study which investigated four different disciplines: Chemistry, Civil Engineering, English Literature and Marketing. It is significant to understand the rationales that the researcher based this decision on, those are:

- The conceptions of English faculty were examined in chapter five; hence, the correspondences and differences have been studied and discussed.

- The researcher wanted to extend the possibility to compare different set of conceptions.

- Marketing and librarianship as a career develop practical experience, therefore, to compare between both studies was valid.

This group of scholars were able to discover six different conceptions of IL, while the researcher was able to identify seven (table 16)

Table 16: Webber, Johnston and Boon's conceptions compared with second phase categories

Webber, Johnston and Boon (2006)	This phase categories	The position
1- Accessing information quickly and easily to be aware of and able to be up to date with new information	أ- Elite idea for outstanding people	No correspondence
2- Using IT to work with information efficiently and effectively	ب- Catalyst for change	No correspondence
3-Possessing a set of information skills and applying them to the task in hand	ت- An illumination	No correspondence
4-Using IL to solve real-world problems	ث- Subject to the purpose	No correspondence
5- Becoming critical thinkers	ج- Collaborative process	No correspondence
6- Becoming a confident, independent practitioner	ح- Long-term process	No correspondence
	خ- A method to support an educational process	No correspondence

As can be seen from the above table, although a few matches were identified between the first phase categories and Webber et al's study, in this phase there is no correspondence between Webber, Johnston and Boon (2006) and the findings of this phase findings,. While, Webber, Johnston and Boon (2006) conceptions mainly reflect the meanings of IL as set of skills and abilities to solve real problems, to support critical thinker and create independent practitioner, the primary concern of the findings of this phase is to employ IL to contribute to educational and learning goals. According to the findings, IL was acknowledged as a strategy rather than a set of skills because it is a long term process which requires collaboration between different parties to assure that the organization goals are attained. Furthermore, it is perceived as an enabler and essential for change, because it provides individuals with the guidance to make better decision and solve practical issues. The researcher must emphasise that the participants' career background appeared to play a vital role in creating and reflecting

the meanings of IL in both studies. The participants of this study received training which changed their awareness of the phenomenon of IL which enabled them to reflect a more holistic meanings and conceptions. In contrast, in Webber et al research study, participants mainly based on their practical experience and meanings they gained from a specific learning site to reflect and create the conception of IL.

To sum up, the researcher in the above section (6.4) and proceeding subsections discussed the findings of this research by comparing them with the established IL studies which had similar contexts and methodological approaches. It has been argued, given that each concept was unique within the categories of this phase and other studies which were the subject of the compression. Nevertheless, there are examples of implicit correspondence between this phase and other studies that have been highlighted. The section below will discuss to what extent the school librarian's second phase conceptions reflect the conceptions of IL training programme. The researcher will achieve this aim by comparing the conceptions presented in the training programme with the conceptions which emerged in the second phase.

6.5. A comparison with the Training Course Conceptions

The main aim of this section is to discuss whether the school librarian's new conceptions reflected the same conceptions they received during the training programme or whether they reflected their own conceptions.

With reference to chapter four, the researcher introduced IL over the period of seven days. Accordingly, seven different conceptions of IL were introduced in the inspiration of Bruce seven faces of IL (see table below)

Table 17: Outlines the seven conceptions of IL as they were presented to the Syrian school librarians during the IL programme

Day Number	Day Title	Day Main Target
1	IL as using ICT tools and technologies	Experience the usage of main ICT tools in the context of the school library (Internet, i.e. email, blog, chat rooms)
2	IL as an information resource	Experience the usage of main information resources in the context of school library (locally and globally)
3	IL as an application of information process	Experience the usage of both physical and virtual search tools and strategies in the context of the school library.
4	IL as information management	Experience the usage of information management tools and strategies in the context of the school library.
5	IL as a critical thinking and knowledge construction	Experiencing the usage of analysing and evaluating tools in the context of the school library
6	IL as a knowledge extension	Experience the cultures difference and physical communication tools
7	IL is as a sources of Wisdom	Employ all the above experiences to improve personal and others life

As can be seen from the above table, seven conceptions of IL were introduced to the Syrian school librarians during seven days of training. The researcher attempted to present the conceptions in order to extend the meanings of IL and to offer the school librarians as broader scope as possible. It was intended to enable them to extend their awareness and experience

new aspects of IL that had not been encountered previously. It is important to highlight that, the school librarians were interviewed directly after the programme, but they were allocated four months free period to practise the conceptions they received in a practical context. Subsequently to the four months period, the researcher re-interviewed the school librarians and the following conceptions were as results of the interview transcriptions (table 11)

As a result of comparing table (11) and table (15) it is evident that:

1. The categories which emerged from the next phase interviews are unlike conceptions which were introduced in the training programme.

2. Both reflected seven conceptions of IL.

3. The researcher's conceptions contexts were varied and broad. In contrast, the next phase categories main contexts were education and learning settings.

4. While the researcher's conceptions provided a broad scope and encouraged multiple experiences, the categories which emerged from next phase conceptions were more focused on specific meanings and encouraged a different set of experiences.

5. The researcher intended designed a semi-inclusive hierarchical structure to her conceptions. Whereas, the categories which emerged from the second phase were structured naturally in the light of three different relations only one of them reflect a semi-inclusive hierarchical relation.

6. Despite the fact that each concept was unique there were, nevertheless, implicit links that were identified. For example, in the researcher's last conception of IL was IL a source of Wisdom could be linked to the school librarian's conceptions   ت and ب

In summary, the result of the compression shows that although implicit correspondences were identified between the programme conceptions and the categories which emerged from the second phase interviews, the school librarians were able to produce their own conceptions which reflected the interpretations they established as a result of their interaction with the phenomenon of IL and experiencing it in the real world.

6.6. Chapter Summary

To conclude, the findings which emerged as a result of conducting 20 semi-structured interviews with a group of Syrian school librarians who attended IL programme have been discussed in depth and seven different conceptions of IL were identified. Full descriptions of those conceptions associated with characteristic quotations from the transcriptions referenced as (SLn) were provided. Subsequently, a discussion of the relationships between categories – categories and between categories was presented. The researcher, following, finally compared the findings of this phase with the literature to validate the findings and then she compared the conceptions presented in the training programme with conceptions which emerged from the findings of the second phase. In the following chapter a comparison between first phase and second phase categories will be provided.

CHAPTER 7: Comparing between both Phases' Categories

7.1. Introduction

The previous two chapters (5 and 6) described the variations and changes in school librarians' conceptions of IL. Furthermore, in chapter six, the researcher argued that the findings of the second phase indicated that the school librarians' conceptions of IL have changed dramatically due to the change in their educational, social and practical experiences which they enjoyed during and after attending the IL training programme. It is important to re-emphasise that, although the categories which emerged from the second phase interviews implied, occasionally, a few ideas introduced in the programme, the school librarians were able to originate new conceptions which reflected their understandings and experiences to IL as a result of their real world practices, rather than reproducing conceptions and meanings presented during the training programme. (See Chapter six)

The researcher designed this chapter aiming to provide avenue for further research studies which are required to understand the causes and effects of the training programme and school librarians' backgrounds on the emergence of the conceptions of IL. The researcher begins this chapter; hence, with a summary of the main difference she identified between both phases' categories. The argument is supported by selective quotations from both phases' interviews transcript. Understanding and discussing the difference is significant to encourage better understanding to how the Syrian school librarians' conceptions have changed after attending the IL training programme. Again, due to the fact that the main aim of phenomenography is not to look at the cause and effects of the phenomenon or any other relative aspects, hence, further research studies are required. Nevertheless, the discussion produced in this chapter could be yeast for those studies. Unlike other phenomenographic researches, the researcher in this chapter summarizes the common themes she identified based on her understandings to some fundamental issues raised during the interviews. The researcher chose to do that to encourage, further research studies articulate similar issues and investigate it.   The researcher then speculates whether, the school librarians' backgrounds caused any differences to the conceptions which emerged. The researcher employed the discussion of the produced subsection to pave the way for further research.

7.2. Discriminating the Differences between both Sets of Categories

7.2.1. Introduction

In this section, the researcher highlights the differences she identified between both sets of categories. It is important to stress that the researcher will not provide deep explanations and discussions about the cause and effect of those changes because that is beyond the main scope of her study. Hence, further studies will be required to investigate in more depth the patterns of changes between both sets of categories in terms of cause and effects.

7.2.2. Discriminating the Differences between Both Sets of Categories

The differences between both sets of categories were spotted on many occasions; therefore, the researcher designed the table below to highlight the main differences then more discussion will be delivered in later subsections.

Table**18** : The patterns of changes between the both set of categories

The main patterns of changes	Phase one categories	Phase two categories
The number of the categories	6	7
The number of the dimensions	3	3
The relations between the categories (see section 7.2.2.1.2.)	One main hierarchy, relation combined all the categories	Three different relations hierarchy, combined and individual separated all the categories
The influence of the dimensions of variations (see section 7.2.2.2.2).	Separated the categories into levels (hierarchically)	Combined the categories as one set each set is related to specific sector (holistic)
The meaning of IL and the focus of the categories (see section 7.2.2.3)	All the dimensions of variations should be presented together to reflect the meaning of IL at a specific level	All the categories should be presented together to reflect the meaning of IL at a specific dimension

As can be seen from the above table, many differences between both sets of categories were recorded. In the subsections below, the researcher will discuss the patterns of changes between the categories in terms of the relation between the categories, the dimensions of variations, the meanings of IL and the focus of the categories.

7.2.2.1. The Pattern of Changes between Both Sets of Categories

7.2.2.1.1 Introduction

The main aim of these subsections is to discuss the main pattern of changes indicated in the above table. The researcher will provide more explanations to how she thinks the selected patterns differed between both sets of categories. Her discussion will be associated with selective quotations from both phases' interviews as required.

7.2.2.1.2. The Pattern of Changes in Terms of The Relation between The Categories

Calling back to the discussion produced in chapter five, it has been argued that the first set of categories which emerged as a result of the first phase phenomenographic interviews were structured, naturally, without the researcher interference, hierarchically. The conceptions which emerged reflected many contexts, starting with the limited meaning of the context of information, at the lowest level of the hierarchy and ending with a greater context which was life at the maximum level of the hierarchy via different contexts in different levels. The participants were attempting to relate the phenomenon (i.e. IL) to a context in which they thought that they had experienced something they were able to conceptualise as IL. They were trying to make sense of this phenomenon, which previously they had not conceptualised, by grounding it in a context that was familiar to them. More specifically they attempted to make sense and meaning of un-conceptualized phenomenon by altering it to a context which they were familiar with. Hence, the most influencing factor, which seemed to influence the establishment of the hierarchical relation which emerged between phase one categories, resulted because the level of school librarians' awareness to the phenomenon of IL was varied based on their level of experience. For example, while some school librarians were able to alter the phenomenon to greater contexts such as (life)

> *I think it [IL] is in every corner in our lives, we need it [information literacy] to live better life…….. (SL10) phase-1*

A few others were not able to see IL out of limited context such as information, library and digital contexts.

> *Information literacy …. Hmm, it is an informatics science-based term. (SL11) phase-1*

> *I do not think information literacy would go beyond the library's walls. (SL.18)*

> *Well, when someone is able to deal with information, I mean, has the ability to use information... I think this is information literacy, am I right. (SL2)*

Hence, as it can be understood from the above quotations, that the differences in levels in seeing and understanding IL or any of its aspects caused the hierarchical relation between the categories.

In the second phase, however, the equation became different. The set of the categories which emerged as a result of second phase of phenomenographic interviews did not show any holistic hierarchical relations between all the categories which emerged, although, semi-inclusive hierarchical relation was spotted between ب and ت categories. For example, in category ب IL was seen as a catalyst for change:

> *It [information literacy] helped me change my way of thinking, of living and understanding the meanings of information and how it can be used to fulfil my life. (SL6)*

Furthermore, it is catalyst for change because it illuminated people's thoughts, ideas and it allowed them to see out of the dark boxes:

> *SL13: Yes, I have changed, to be honest, everything has changed, and it [information literacy] is a new light in my life, I can understand and see things much better"*

> *Researcher: why do you think information literacy is a light?*

> *SL13: [breath]…. because it helped me see the places which I did not used to recognize before, I do my work much better now because I can see greater values and possibilities [silent] …. I can think more openly because I recognized that being different does not mean being wrong as information could be colourful to life or more likely to be.*

Although in the second phase, a hierarchical relation was spotted, it was not holistic rather specific and limited, therefore, it could not be acknowledged as a main feature of the categories' structure. The establishment of different types of relations between the categories indicates that the awareness of the school librarians toward the phenomenon of IL has changed; therefore, they were able to spot different aspects and combine them to what they thought it was related.

To sum up, the hierarchical relation dominated the structure of the first phase set of categories because the levels of school librarians' awareness of the phenomenon of IL were varied based on their existing experiences and understandings. Some of them seemed to be quite confident about the term because they had a meaning to the phenomenon or they were

able to combine the phenomenon to where they experienced it, while some others seemed to be not very sure how and where to combine the term to because they did not have previous meanings and they suffered from lack of awareness, hence, they altered the phenomenon to the context they were familiar with not to where they experienced the phenomenon. This means, the richness of the participant's own values, attitudes and personal experiences played the main role in combing the categories in hierarchical structure.

Unlike, the first phase, in the second phase, three different relations, including one semi-inclusive hierarchical relation, played a vital role in maintaining the relations between categories. The richness of the human's values which the participants hold was not the main influencing factor, although it was implied, on the nature of the relations between the second phase categories. Rather the school librarians' new educational, social and practical experiences with IL which changed the focuses of their awareness to the meanings of IL and allowed them to alter those meanings to meet their context's needs. The categories in the next phase seemed to be more open to possibilities of applications and changes rather than close to contexts and roles. Being open limited the possibility for hierarchical structured relation, hence, the multi-relations structure was identified.

In the later section, the researcher will discuss briefly, the patterns of changes between the categories in terms of the influence of the dimensions of variations in the creations of the categories.

7.2.2.2. The Pattern of Changes in Terms of Dimensions of Variations.

7.2.2.2.1 Introduction

In this subsection, the researcher will discuss the possible role which the dimensions of variations in each set of categories played to discriminate the creations of the categories. It seemed more logical, before doing any elaboration, to summarize the coming discussion as in first phase, because, it was a hierarchical, as mentioned earlier, the most holistic understanding and meanings of IL was captured in the category at the "top "of the hierarchy. However, in the second phase, there was a need to include all seven categories to present the whole view of IL for the Syrian school librarians' context. This means, to reflect the focus of particular dimension, such as information use, there is a need to introduce all seven conceptions of IL to get the complete view of it. Further discussion will be provided in the subsection below.

7.2.2.2.2. The Role of Dimensions of Variations in Differentiating Both Sets of Categories

Although the dimensions of variations in both sets of categories were (three), the influences of those dimensions of variations on the creation of the categories were different. The dimensions of variation (the context, the role of the student and the role of the school librarians) in the first phase played a vital role in discriminating the categories into levels. In each level, all dimensions of variations should be presented to reflect that specific meaning of IL. For example, to reflect the meaning of IL as using *textual (printed and electronic) information to solve practical problems,* it should be introduced to information context where the student is information user and librarian is an information specialist. It is a compulsory horizontal relation which means that meaning of IL would not be reflected without the inclusion of all three focuses.

Accordingly, in the second set of categories, the three dimensions of variations (the information use focus, the cognitive focus and inspirational focus) combined the categories in one set to reflect holistic meanings of IL to meet the Syrian's needs. This means, all the categories should be presented simultaneously to reflect the holistic meanings of IL according to that focus. For example, **to reflect the meanings of information literacy from the information use focus viewpoint**, all presented meanings of IL which emerged should be covered and understood. It is interesting to see that, the relation between the categories and dimensions of variations is optional vertical because it is related mainly to the possible needs of IL in a specific context. This means, it is only compulsory when the holistic approach of IL is the target. However, someone should understand that stressing vertical relation between the categories in second phase does not contradict the fact that, there is a need to look horizontally as well to gain each category's specific meaning of IL.

To sum up, the dimensions of variations played a significant role in differentiating both sets of categories. While, the dimensions of variation in the first phase discriminated the categories into levels, each level reflected a specific meaning of IL in a specific context; the dimensions of variation in the second phase combined the categories and allowed them to reflect the holistic meanings of IL. However a need to also look horizontally in the second phase is vital to understand a specific meaning of IL.

In the next section the patterns of changes between the categories in terms of the emerged meanings of IL will be discussed.

7.2.2.3. The Pattern of changes between The Categories in Terms of The Meanings of Information Literacy.

7.2.2.3.1. Introduction

Referring to both sets of categories, someone could discover simply that the meanings of IL were different. In fact, there was not any concept from those which emerged in the first phase which explicitly existed in the second phase; nevertheless, there were a few implied links between both sets of categories. Before going any further and picking up a few examples, the researcher is willing to remind the readers, that illustrating and discussing in details the differences and the reasons of these differences is beyond the scope of this PhD , hence, further studies are required. The researcher's main aims in maintaining such a section is to help in understanding how the meanings which emerged from both sets were different and to pave the way for further research studies. Hence, the researcher has selected a few examples from each phase and compared them with the second phase.

7.2.2.3.2. Comparative Examples From Both Sets of Categories

According to the first phase, IL was seen as**"** ***Using computer and Internet (B)*** such conception of IL was not spotted in the second phase in any way. Which means that, this meaning of IL has disappeared explicitly; however it is implicitly included in the "***Support educational process (ح), Elite idea for outstanding people (أ) and Catalyst for change (ت)***" second phase conceptions. So, while in the first phase using computer and Internet was a main category, in the next phase the category became semi-category which makes it has limited meanings which are included rather inclusive.

 Further, according to the first phase "***Using textual (printed and electronic) information to solve practical problems (B)***" someone can see that this conception has changed from being one conception amongst six in the first phase to being a main dimension (i.e. the information use dimension) of all seven conceptions in the second phase. This indicates, that the focus on the need to understand the meaning of the use of information becomes greater, which made participators shift it from being a main category which has a limited influence to main dimension which has greater influence.

In terms of the whole meanings of the categories which emerged from both phases the researcher found that, while the focus of the meanings of the first phase conception was on reflecting IL as it was a student-librarians based phenomenon, the focus of the meanings of the second phase conception was on reflecting IL as it was an education- learning

phenomenon. This means, the meanings of the first phase conceptions stressed on the nature of the student-librarians relation, despite the context, to create the meaning of IL. However, in the next phase, the meanings of the conceptions stressed on the role of IL to promote extra values to education and student's learning.

To conclude, many differences, in term of IL meanings, were identified between both sets of categories in both phases. On some occasions, a few categories were not identified explicitly rather understood implicitly. Some others have moved from being a category at the first phase, to become a dimension of variation at the second. Despite, this and that, it is significant to mention that while the meanings of the first phase focused on the overlapped role of student-librarians to make the meanings of IL, the second phase meanings of IL stressed on the values which IL will promote in education and learning. In the section below, the researcher will summarize a few similar themes she identified in both phases' interviews; thought themes were articulated as constrictive, spiritual and practical. More details are provided in later section.

7.3. Themes of Similarities between Both phases' Interviews

7.3.1. Introduction

It might be alien to phenomenography, which is all about identifying variations, to highlight similarities. Hence, it is vital to mention that the researcher in this section is looking at the common themes, drawing on the interview data, rather than drawing on the phenomenographic analysis. The researcher was able to find two similar themes between both phases' interviews which could be labelled throughout three distinct lines: constructive line, inspiration line and practical line. Constructive line was found when IL is understood and conceptualised as a part of mental philosophy. The inspiration line was identified when IL was understood as a part of moral philosophy and the practical line is recorded when IL was understood as part of practical activities and duties. The section below discusses each line individually associated with supportive quotations from interview's phases.

7.3.2. Constructive Theme of Information Literacy

 The participants falling into this line tended to acknowledge the role of IL in improving cognitive ability. The researcher identified two main areas which should be understood and acknowledged before implementing IL those are:

7.3.2.1 Strategies Area

Participants saw that making and implementing strategies is vital to promote IL to schools successfully. Although the meanings of strategies were varied, the term itself has been used on many occasions by a few school librarians during the interviews and stressed that without clear strategies in all levels the implementation of IL would be partial. Implementing IL in the Syrian school required clear strategic insights that allow the long-term success:

People need strategies to reach to information. They need to acknowledge their information needs and available information channels. For example, I am a school librarian and the most important information channels to me are Internet and books. The doctor must see the patient to get information from him about specific disease; therefore, the patient's body is the doctor's information channels. The business man must test the market to know the extent of his business possibilities .Each one of those required different searching strategy to reach the required information. (SL1) - phase 1

You need a clear strategy before any actual implementation of any information literacy application. (SL13) - phase 2

The Ministry of Education needs to have clear ideas about how to encourage teachers; librarians and teachers work simultaneously to apply information literacy successfully. (SL5)-phase 2

What is the point of applying information literacy in schools if no one knows how to do that? I think what we need first is to clear our vision and to recognize where we will be going. (SL7) - phase 1

Well, I think, it is the accurate time for the Ministry of Education to change the old strategies, you need to introduce to them information literacy (laughing) they need fresh strategies to benefit from the great value of information literacy - (SL15)-phase 2

7.3.2.2. Digital Area

Terms such as digitisation or computerisation were indicated in many junctures in the interviewee's records. Sometimes, it meant technological tools, while for others it meant

information and communication technologies and some others it altered to the countries'
contexts:

*Information literacy is a luxury and unnecessary in our schools. We do not have
computers and Internet to use it. (SL19) –phase 1*

*I would not say that technologies are not vital to support information literacy but it is
not information literacy. (SL10)-phase 2*

Information literacy is needed where computer network is established (SL7)-phase1

*.....The Internet is very important to allow our children see how the world around
them is developing .... You cannot twitter outside the flock ... no one can deny that we
need better communication technologies to promote information literacy more
effectively. (SL8)-phase2*

The country's culture is also seen as a part of this area. Some librarians thought that
digitisation is part of some countries' culture and it is not part of others, therefore, the
implementation of IL will be fragmentary where lack of technological tools is recorded.
They pulled the evidence from the current situation in Syria:

*We do not deserve technology, we do not know how to use it and interact with it.
Observe the coffee net and see how our people use the Internet. Visit our families and
see how they use the computer. It is ridiculous. I work in a coffee net as a second job
and I see everyday a mystery. I think information literacy is produced for those who
know how to use technology not for us. (SL6) –phase 1*

*Many people know that the Internet services in Syria is controlled and filtered by the
government and the supplier from outside Syria. So what we receive is only what they
are allowing us to receive. They knew that information is power; therefore, they
controlled that power… (Silent) … If you remember during the programme we
suffered from connection failures many times, and I believe we would be able to gain
greater understanding to the conceptions of information literacy if the Internet
connection was better because it will not be distributed and confused " .(SL10)-phase
2*

7.3.3. Inspiration Theme of Information Literacy

The participants belonging to this line saw that changing the current values and morals is fundamental to implement IL successfully. The interviewees indicated that to implement IL more effectively in the Syrian's context much freedom is required to encourage critical thinking. Furthermore, better moral values are needed to enforce the healthy usage of the information and communication technologies which are the main avenue to acquire more effective interaction and communication with the world outside Syria:

7.3.3.1. Justice and Democracy Area

A few librarians stressed that encouraging more freedom is fundamental to encourage better implementation and application of IL in Syrian contexts. People need freedom to think and communicate more openly and to share more confidently and securely because those are essential aspects of IL. Furthermore, re-creating and amending the current moral value especially for youths are also acknowledged as a required step to implement effective IL in Syrian schools:

> *Human is human everywhere. We all know that humans have rights and have responsibilities but unfortunately not all the people know what are those rights and responsibilities. I think understanding information literacy would help us know how to find out what are our rights and what we shall provide.(SL8)-phase1*

> *……. To share, communicate, express thoughts and listen is the core of information literacy. It gives people a free space of freedom to express their personal visions and opinions. (SL3)-phase 2*

> *SL12: When you deal with others' efforts you need to have personal values that prevent you from stealing others' efforts and legitimize their hard works.*

> *Researcher: how do you think this related to information literacy?*

> *SL12: well it is the ground which you need to prepare to put the seed of information literacy; we need suitable soil (laughing) phase 1*

> *You need, first, to think about re-modifying or maybe change the current moral system. You need to encourage writers, publishers, students and every one respect others' efforts. Plagiarism could be a great threat to information literacy because it will prevent people from sharing and expressing their thoughts. (SL7) – phase 2*

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7.3.4. Practical Theme of Information Literacy

The school librarians stressed that to implement IL in Syrian context, the practical side of education must be encouraged. Students in all education settings need to learn more in practical ways. The government needs to think about extending the funds on the practical side of learning, therefore, more labs, libraries, equipments and free class room settings are required. That does not contradict the fact that the theoretical part of learning is fundamental to enhance students' knowledge and learning:

> *Let us be honest, all that our students have is text books to memorise, 50 students in one classroom… In the Chemistry class over 15 students fight over test tubes. The ideas we discussed are great ideas and they need suitable environments and tools. That is why I told you the term is not for us. (SL 20)-phase 1*

> *SL6: as I said information literacy is about the change, but it needs changes.*

> *Researcher: What do you mean?*

> *SL6: The Ministry of Education needs to think about changing its way of thinking about education and learning. I like your programme, I have learned from it because the practical side had a great part. I was able to apply and experiment what I have learned. It was different from what we used in the university. The minister needs to think about encouraging more practical applications of learning which will make the atmosphere ready to implement information literacy. Again it is all about changes.*

To sum up, a few similar themes were identified in the interviewee's transcripts. They were summarized in three different lines: constructive line which reflected the need for strategies, clear aims and strategic insights to promote IL successfully in the Syrian school librarian, the inspiration line; reflected the need for moral, spiritual and values to promote IL effectively and practical line showed that more practical education is fundamental to promote IL into the Syrian context. It seemed that those three lines should be presented simultaneously to support the emerged meanings and conceptions of IL. Adopting a specific line without others means, to the Syrian school librarians ignoring significant elements which might make a difference to the applications of IL. In other words, to present the phenomenon of IL in the Syrian school libraries context, the similarities, between both phases' interviews as well as the existed conceptions of IL should be tackled and developed, taking into account, the special needs of each context. In the section below, the researcher will highlight the school

librarian's background and accordingly will state a new hypothesis which could be avenue for further research studies.

7.4. The Influences of School Librarians' Backgrounds on The Nature of The Categories

In this section, the researcher aims to discuss the influences of school librarian's backgrounds before and after attending the training programme, which was a social, educational, and practical experience which enriched the school librarian's knowledge and enabled them identify new horizons on the IL land, on the nature of the categories and the patterns of changes of the conceptions which emerged.

Twenty school librarians from Damascus, the capital of Syria and its Suburb, one of the largest cities in Syria, were interviewed at both phases. The interviewed school librarians hold different social structural, economic, gender, age, educational and careers backgrounds.

Despite that, the idea of IL, according to the school librarians at the first phase, seemed to be combined mainly to their educational and practical experiences as a school librarian considering that two different categories were identities (see table below):

Table 19: The interviewed school librarians' backgrounds

The school librarian's category	Educational background	Careers background
Qualified school librarians	Licence in Librarianship from Damascus University, Library and Information Science Department	Mainly school librarian
Non qualified school librarians	Qualified teacher (High institution of teaching, English, Arabic, Geography, history, Feminine arts and Sport)	Class room teacher was transferred to the school library due to health difficulties

As can be seen from the above table, although school librarians who were interviewed have had different educational and practical backgrounds; none of them received systematic

training or education about IL even those who were qualified as librarians. This means, their main perspectives reflected their pure understandings and meanings which they created as a result of their education and every day interaction with their careers.

In the second phase, the same school librarians were interviewed, which means, the same backgrounds remained; those school librarians were able to receive the same training as they enjoyed the same social, educational and practical experiences which were different from what they were accustomed to. School librarians were able to practically interact and, in the real world, experience the phenomenon of IL. This means, their new perspectives emerged from practical and theoretical interactions with the phenomenon, rather than making meanings and combine the phenomenon to issues which might be not related to the phenomenon. Receiving a systemic training and experiencing the meanings and conceptions of IL in the real world allowed the school librarians to discriminate what is relative to the phenomenon in their contexts and what is not despite the fact that their educational backgrounds were different. Furthermore, the training programme allowed considerable levels of interactions; sharing and communication between qualified and non qualified schools librarians which means, the possibility for exchanging ideas and conceptions were greater. The training programme, including all related experiences, melted the school librarians' educational and practical backgrounds in one pot, and changed their focus and awareness , not only toward the phenomenon itself but also how this phenomenon could be combined with related other phenomenon to serve the needs of the context. Therefore, for example, they were able to experience the establishment of new meanings and emphasised collaboration and sharing conceptions which were not recognized in the first phase categories.

To sum up, in the first phase the librarians' educational and practical background had the main influence on the creation of the first phase categories. While, in the second phase the librarians' current educational situation had the greater influence in the creation of the second phase categories. Although interacting and receiving different sets of IL conceptions during the training programme allowed the school librarians to understand and experience theoretically different meanings and conceptions, the practical applications in the field of the education itself allowed the school librarians to experience IL in the real world and discern the aspects which are more likely to be related to their context.

This means, the change of the educational knowledge would not be enough without practicing and enjoying the experience in the real world to discern the aspects which are related to the context and those which are not. Hence, further research and studies are required to investigate to what extent understanding theoretical IL and applying practical IL would change people's conceptions. At this point, the researcher finds her-self able to hypothesise that

The school librarian's educational, social and personal background influenced their conceptions of information literacy at the first phase.

"*I am not very sure but I think, I came across this term in the University*" (SL2; first phase)

> *No I have not heard about it [IL] before, but from my experience as a classroom teacher for more than 15 years and as a school librarian for more than 2 years I can describe it [Information literacy]as" (SL13- first phase).*
>
> *Researcher: Why did you describe IL in the way you did?*
>
> *SL9: [Silent], hmmm, from my experience as a librarian and previous teacher I could say that*

More studies are required to investigate whether this statement is right nor not. In the section below the researcher will highlight the difference and similarities between both phases' sets of categories.

7.5. Conclusion

This chapter was produced to summarise the difference identified between first phase and second phase categories. The researcher, then, discussed a few common themes she indentified drawing on the interview data. The researcher discussed such issues to allow people to see the possible needs of the implementation of IL in the Syrian context. Although, this is beyond the scope of phenomenographic research, it seemed essential to understand the holistic image of the school librarian's meanings of IL. To discuss those as a part of the phenomenographic analysis was not acceptable, hence, the researcher draws those out of the phenomenographic analysis context. The researcher finally hypothesised that the school librarian's educational, social and personal background has influenced their conceptions of IL. Investigating to what extent this statement is accurate is beyond the focus of this PhD, hence

further studies are required. In the next chapter the researcher will articulate the implication of her research, the limitations, the contributions to knowledge and the recommendations for further studies.

CHAPTER 8: Conclusion and Future Work

8.1. Introduction

This chapter aims to represent and summarise the journey of this study and to revisit all the previous chapters of this thesis, in order to elaborate on the implications and contributions of this study to the fields of IL, to the phenomenographic approach, to library and information science, to Arabic literature and to the Syrian school library. This chapter will start by explaining how the study objectives were accomplished and will then look at how the primary questions of this thesis have been addressed by the research outcomes as described in Chapters 5 to 7. These research outcomes will then be related to the literature described in Chapter 2, with the aim of determining how these findings contribute to the discussion regarding the conceptions of IL from the perspective of school librarians, their ways of experiencing IL, and its possible development and changes. The implications of the research findings for future studies, and for librarianship development practices that seek to encourage change in the school librarian's manner of experiencing IL, will be highlighted.

8.2. Accomplishing the Study Objectives

8.2.1. Introduction

The main questions of this study were:

1. How do school librarians conceive IL?

2. To what extent would participating in an IL programme change these conceptions of IL?

3. What are the possible applications of phenomenography in an Arabic context?

These questions were addressed and answered based on the theoretical perspectives of phenomenography, variation, awareness and learning. This involved studying the critical aspects that distinguished school librarians' conceptions of IL, before and after attending an IL training programme and after experiencing four months of real-life practice, and interpreting how the awareness of the school librarians had changed with regard to the phenomenon of IL.

8.2.2. The Method of Data Collection and Processing

Data were collected by the semi-structured interview method, which made the researcher more aware of the nature of the information required and the type of questions to be asked. This, in turn, positively influenced the researcher's interviewing, dialogue and communication skills. The researcher was aware from the beginning of this journey of the following:

- The nature of the methodological approach, which was based mainly on a semi-structured interview and did not allow more than one visit for fieldwork.

- Cultural and religious diversity; this awareness enabled the researcher to avoid any kind of defensive behaviour which might influence the interview process.

- The nature and requirements of ethical and professional concerns. For example, in the early stages permission was required from the Ministry of Education to interview the librarians before and after the training programme, which made the researcher more confident and secure during the data collection process, positively influencing her skills.

- The need to give each interviewee plenty of time in order to fully express their meanings and understandings relating to IL or any related aspect.

- The possible travelling costs which allowed the management of financial resources early on, thereby avoiding any stress or delay which might have impacted on the interviewees' perspective of the interviewer's reliability.

- The nature of the required interviewing and communication skills, hence, the researcher attended a diploma course to improve these skills before the data collection stage.

During the first phase of interviews for the collection of data, the researcher was aware of:

1) *Ethical and professional concerns:* an information communication sheet and permission sheet were designed to seek the required permission from the interviewees before the interview (Appendix1). Each interview was commenced by reading these sheets to ensure that the interviewee had a full idea of the rights of each party before starting the interview.

2) *Cultural and religious concerns:* the researcher avoided interviewing male librarians in a closed room, therefore respecting religious and cultural values. Alternatively, a

member of his family, usually his wife, was allowed to attend the interview as an observer, which promoted the impression that the interview was a valuable process and was being conducted by a reliable researcher.

3) *The participants' requirements:* the researcher allowed the participants to decide where the interview took place and even allowed them the option of changing locations during the interview to increase the interviewee's comfort, bearing in mind the possible ethical and professional concerns.

4) *The interview process*: the researcher learned how to manage and encourage the interviewees' participation and how not to lead the interviews or give the interviewee an answer.

5) *The length of the interviews:* no more than two interviews were scheduled for the same day.

6) *The nature of the interview questions:* this could be varied by asking the same question in different ways, or by putting the questions in a way that made the interviewee more comfortable.

7) *The nature of the interviewee-researcher relationship*: unlike other phenomenographic research, this study investigated the conceptions of IL among school librarians in two different phases and included daily interactions between the interviewees and the researcher during the IL training programme for over 10 hours. This meant that the type and level of the relationship would influence the entire journey and the interviewees' perspectives and experiences of IL would result from their first impressions of the researcher.

This put the researcher under extra pressure to establish a healthy relationship between herself and the participants and to avoid misleading them. During the second phase of interviews, as well as all the above issues, the researcher was further aware of the following issues:

1. *The participants' emotional experiences during the course*: a number of participants experienced emotional feelings regarding the unpleasant perspectives of their jobs and career. Therefore, during the second phase of interviews, the researcher avoided declaring or mentioning such issues, to avoid any influence on the expressed perspectives.

2. *The participants' circumstances:* due to the nature of the research, it was possible that some participants' circumstances might have changed since the first interview. When scheduling any interview, the researcher ensured that the interviewee was still willing to participate and that any new circumstances did not change his or her willingness to share and contribute.

Transcribing the interviews from both phases produced 1,000,000 words (457,560 words from the first phase and 542,440 words from the second phase). The analysis of both phases allowed the researcher to catalogue the findings into 13 categories (6 from the first and 7 from the second). These 13 categories reflected the school librarians' conceptions of IL, which reflected the embedded meanings of IL from the school librarians' experience before and after attending an IL training programme. To produce the materials for the training programme, the researcher employed a wide range of related literature and experiences, and these are summarised in Figure 25.
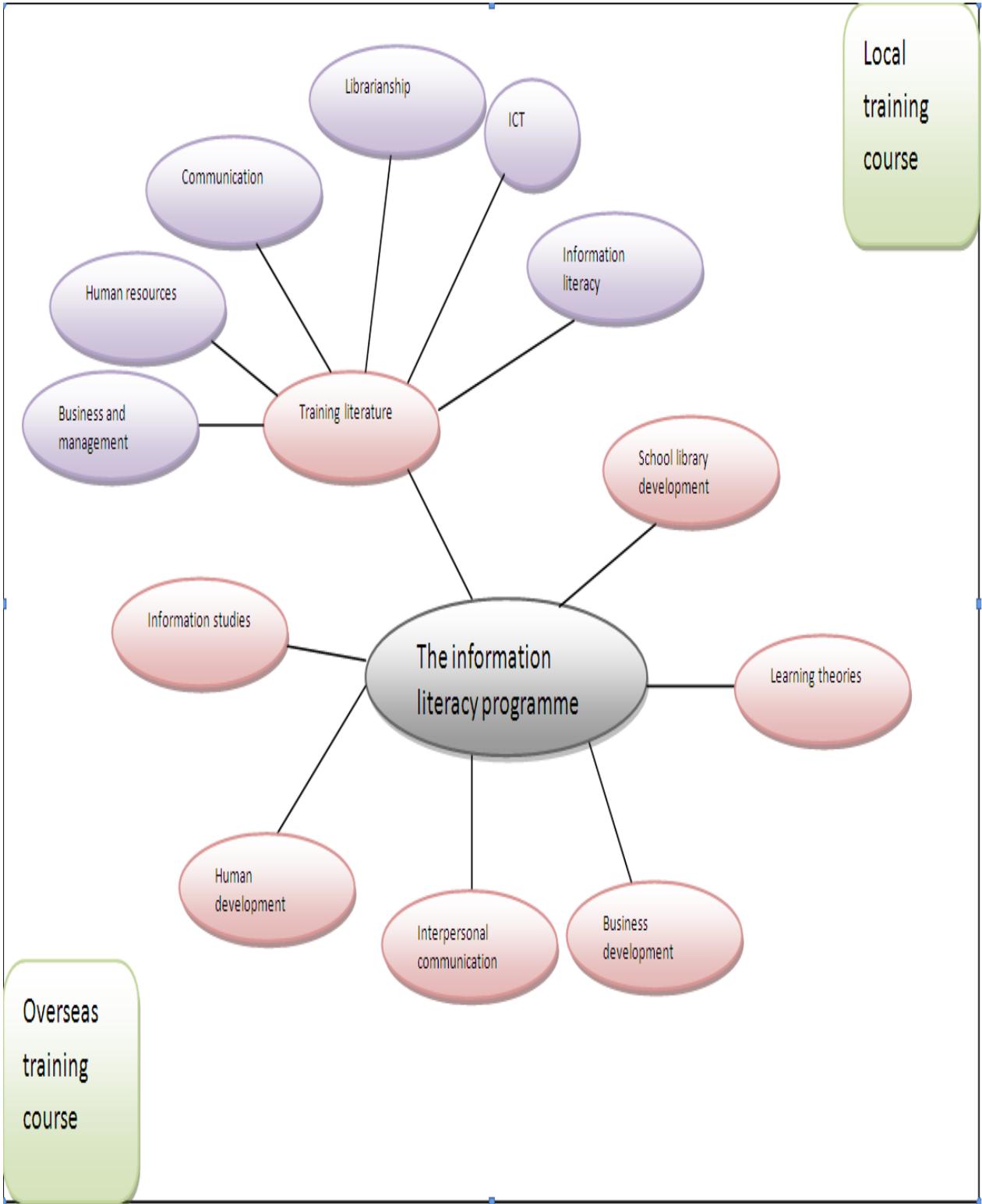
Figure 25: The extent of the knowledge the researcher invested to produce the programme

8.3. Contribution to Knowledge

8.3.1. Introduction

In the following section, the researcher will explain how this study contributes to established human written knowledge in the following areas:

1. Library and information science
2. Application of the phenomenographic approach
3. Arabic information and library literature
4. Contribution to training applications
5. Syrian context

8.3.2. Contribution to Library and Information Science

8.3.2.1. Contribution to the Role of Learners and Librarians in the Context of IL

In the previous chapters, specifically Chapters 5, 6 and 7, the researcher compared the study findings with the IL literature. In previous studies, IL was understood and seen as a phenomenon related to learning-teaching experiences and their setting. To some extent, it was conceptualised as a problem-solving or critical thinking ability that enabled the learner to become an independent learner who is able to learn for life. In most of these studies, the role of the librarian, teacher or IL instructor was mainly instructing, supporting or advocating IL. Furthermore, the role of the student, learner or pupil, was mainly as a learner who knows, realises, understands and is able to accomplish skills that enable him/her to become information literate or a lifelong learner, although both these terms lacked clear definitions. Unlike the published studies, the participants of this study were able to distinguish between the different roles of both the librarian and the pupil for each meaning and the extent of IL. For example, the librarian needs to be a knowledge facilitator while the student is a knowledge seeker, because the context of life requires that they each play the role that allows them both to contribute effectively and co-operatively in the same context. The issue is not only that each one of them has a different role in a different context, but it is also related to the nature of the role and to the type of the relationship which must dominate regarding the meaning of IL in that context. For example, the meaning of IL in the real-life context would not be completely promoted without both parties contributing. A lack of co-operation from one party would influence the meaning of IL in that context.

The above is in regard to the first phase of interview findings; however, in the second phase of interviews the emphasis was on how to reflect the meanings of IL as an educational phenomenon. The participants were able to distinguish between the cognitive meanings of IL, as well as the use of information meanings which had been seen in a few previous studies. However, there are a few issues which this study identified but which have not been described in previous studies, and these are discussed below.

8.3.2.2. Contribution to IL from the Focus of Information Use

Although a few studies stress that IL meanings include the ability to use information, the focus was not on information use as a dimension of variation which influenced the creation of the categories. This study determined that information use in the context of IL should be given extra attention, rather than the focus being information seeking and gathering behaviour. Bruce (2007) in this context stressed that "*We still pay far more attention to information seeking and gathering, than to information use, despite our stated interest in IL*" (p.18).

The meaning of IL in the focus of information found in this study is new compared to previous studies, which have paid more attention to the actions which information use included (or should include) rather than to the meanings which IL can appropriate when the focus is information use. Educationists need to think how to make the meaning of IL applicable when it comes to the stage of using information. In other words, using information should not be limited to using the acquired information to solve problems, answer questions or satisfy a specific information need. Learners should also be encouraged to use information to promote changes to current practice or to maybe make a democratic decision, rather than simply using information to write an assignment or answer a question.

8.3.2.3. Contribution to IL from the Focus of Critical Thinking Ability

Although many previous studies have stressed the role of IL in improving a learner's critical thinking ability, none of them reflected on IL from the cognitive perspective. There is no doubt that IL is able to improve a learner's critical thinking ability because it allows them to evaluate, analyse, think critically and learn constructively. However, the extent to which learners' cognitive ability will influence their learning and the meanings they ascribe to IL has not been examined. This study showed that the learner's cognitive ability can have an influence on the meanings of IL. For example, IL can be seen as an elite idea for outstanding people, because it requires people with high cognitive abilities enabling them to interact

effectively with the term. Accordingly, it is subject to the purpose because its value is subject to the learner's intellectual capacity level.

8.3.3. Contribution to IL from the Focus of Inspirational Values

One of the interesting points about this research relates to extending the meanings of IL to bring the inspirational focus of IL into the spotlight. Although Bruce (1997) and Webber *et al*. (2006) mentioned the role of emotion, moral and human values in the understanding of IL, the relationship between these values and IL was not explicitly clear. In this study, the participants were able to discern inspirational values as a focus to create the meanings of IL. According to this new understanding, IL has the prospect of contributing to established ethical, religious, cultural and moral systems. Although IL might be specific to those who are gifted at a specific spiritual level, it can encourage people to re-think of their faith, feelings and values and can help them to enhance their acceptance of tolerance values.

8.3.4. Contribution to the Application of the Phenomenographic Approach

Although over 1000 studies have adopted phenomenography as a research approach, mainly to investigate people with different perspectives about a specific phenomenon, there is a dearth of literature which explains the actual process and application, especially in regard to the application of interviewing and analysis. With special acknowledgment to a few presentations provided by Webber and Johnston at different events, the written and published literature shows a hunger to publish the details of the journey of the interviewing process, from the decision made to conduct the approach until the end of the data analysis process. The researcher in this thesis has attempted to contribute to this area and has spent a fair part of this thesis explaining the specific details of the journey involved. Furthermore, the researcher together with her supervisor has jointly written an article entitled *The Journey of Phenomenography in Syria* which is planned to be published in both Arabic and English. In the article, some aspects of the interviewing journey in Syria are detailed and further publications are planned following the successful completion of this PhD.

As has been mentioned on many occasions in this study, adopting a phenomenographic approach for conducting this study has been a challenge for a number of reasons:

1. This is the first study within the Arabic literature to adopt this approach, which is considered a new qualitative approach. Furthermore, there is a lack of translation services and collaboration between Arabic and English scholars. Being the first such

study means that there is a lack of practical examples showing possible applications in similar contexts.

2. As mentioned earlier, there is a dearth of literature which explains this approach.

Believing that someone should tackle these challenges, the researcher received great support from her supervisor and was able to shift the limitations present in the literature to strengthen this thesis and to contribute to the phenomenographic approach (see Chapter 3 for more details).

From carrying out this phenomenographic research, seven conceptions of IL emerged from the first phase of interviews, combined with three different dimensions of variations which played a vital role in directing the creation of the categories. These categories reflected the school librarians' pure understanding of the phenomenon of IL, bearing in mind that the librarians did not receive any training related to the term and did not have the chance to conceptualise it before. In other words, the school librarians in this phase described their conceptions of IL as it was characterised by their experiences, which included teaching for some of them and experience in librarianship for all of them. The school librarians' awareness of IL at this stage was scattered, which might explain the nature of the hierarchical structure.

From the second phase of interviews, six different conceptions of IL emerged and three dimensions of variations were considered. Unlike the first phase, the second phase categories did not have one structure, and three different relations were identified. The second phase conceptions reflected the school librarians' understanding of IL as they experienced it in different educational and learning situations. They received a systematic training, and communicated with other colleagues' experiences. Hence, the school librarians' awareness towards the phenomenon of IL became more focused, which might allow the emergence of the multiple-relations structure.

In both phases, the school librarians reflected different qualitative perspectives of IL as they were related to their interpretation of experiencing IL in different relevant situations. However, in the first phase, they reflected the meanings of IL in an indirect way, and therefore context and roles were the main dimensions of variation. In the second phase, though, they reflected the meanings of IL indirectly, and therefore the dimensions of variations were more focused and specific.

8.3.5. Contribution to Arabic Library and Information Science Literature

The Arabic library and information science literature during the last decade has witnessed a noticeable movement on the publication of library and information science issues. Although this could indicate an increase in interest and awareness around the significance of this subject to learning and education, there are a few questions surrounding the value and quality of these publications. The readers of Arabic library and information science literature can see the huge amount of publications translated from English to Arabic which have missed the actual meaning of the original documents. Of course, these are a considerable contribution to the subject, but the translators or scholars who translated these documents needed to be aware of the original meanings of the terminology used. This issue raises the need for Arabic scholars, especially those who have studied the terms in their original language and understood their meanings, to come together and establish a dictionary and thesaurus that encompasses all possible terminologies, synonyms and relevant subjects and ideas.

In the context of this study, the researcher intended to study a subject which is one of the hottest topics but has not been studied within the Arabic region. Although Lesher (2002) studied IL instruction for Kuwaiti students and the role of cultural relevance, her study was limited to the foreign American schools in Kuwait, which taught IL from the perspective of the BIG SIX. Arabic scholars and students now have to start thinking about IL from the Arabic perspective, regardless of the context. There is no doubt that further studies are required to study the conceptions and meanings of IL for different societies, and their future students now have the possibility of building on and developing this study. Further recommendations will be provided in section 8.5.

Although a considerable number of the research studies which have been reported in the Arabic literature studied the current statements of school libraries in the Arabic world and their improvement possibilities, there is a dearth of research studies that show the following:

1. The student's conceptions of the school library and school librarians
2. The librarian's conceptions of the school library
3. The decision-makers' conceptions of the school library and school librarians
4. The influence of cultural aspects on the conceptions of the school librarian and the development of the school library
5. The change of the school librarian's characteristics and roles

All these areas should, alongside certain others, be the subject of future studies. In addition studies which adopt a content analysis approach should be undertaken, to analyse the current relevant school library documents which have been ignored in this research.

The researcher has attempted in this study to summarise the perspectives acquired regarding the school library and school librarian in Chapter 2. Furthermore, a brief description of the current cultural and social aspects and their influences on the development of the school library and school librarian's perspectives has been provided. Further discussion and explanations will be the subject of future publications.

8.3.6. Contribution to Training Applications

As mentioned in Chapter 4, the researcher provided a training programme to educate the Syrian school librarians about IL. The originality of this programme was related to the ideas which the researcher combined together to create the programme. Reviewing Figure 25, it can be seen that the researcher integrated ideas from different subjects to produce the training programme. For example, from the business and management aspect the researcher adopted the 'eat the elephant strategy', from human resources 'ice breaking' was employed, from information systems soft systems thinking tools such as 'rich picture' were utilised, and from librarianship the 'seven faces of IL' was integrated. Thus, this thesis could be a valuable document for those who are planning to teach IL to employees in the workplace. Furthermore, this thesis could be used for the professional development of individuals who have plans to educate and train in IL, where taking into account the need to consider cultural diversity and values is important.

8.3.7. Contribution to the Syrian Context

As the main context of this study was Syrian school librarians, the main contribution of this study is related more specifically to the Syrian educational context at both the school and higher education levels.

8.3.7.1. The School Level

The idea of IL has been conceptualised for the first time at this level in this study. This will help professionals and decision-makers to understand some aspects and perspectives of IL which are embedded in Syrian school librarians. Furthermore, it will be the launch pad for other researchers who are willing to tackle a similar focus or to extend the results of this study.

8.3.7.2 The Higher Education Level

Based on the fact that the researcher who conducted this study is sponsored by Damascus University, and plans to return to teach there at the Department of Library and Information Science, then these findings will be applied and implemented in the real world for the benefit of students and staff who contribute to the Department. In addition, there will be the possibility of contributing to other departments at the same or other Syrian and Arabic universities.

8.4. Implications of the Study

The results of this study could have different implications at different levels, for different professionals.

8.4.1. The Decision-Makers

Looking more holistically at the results of this study, the value of this study can contribute to decision-makers' understanding of the value of the school library in making differences to learning. Sadly, during times of economic crisis the library is often the first to suffer. This indicates that the decision-makers see spending at the higher education level to be more beneficial than at the school level. The results of this study could change the decision-makers' awareness of the value of school libraries, not only in developing the students' learning but also in educating a generation who are more able to contribute effectively to their society.

8.4.2. The School Librarians

A school librarian has often been seen as a low-level job in Syria and is not seen to have the same value as doctors or engineers in society, which has negatively influenced many school librarians' self-esteem, ability to perform their jobs effectively and their willingness to design future plans to develop their skills, especially when they could not see themselves contributing to such jobs.

The results of this study have shown that school librarians can support other educationalists in creating learning and teaching environments which make the school a more enjoyable place to go to for everyone involved in the education process, including pupils. Even ignoring the role which school librarians can play in educating a civilised people, it would benefit the government who pay the salaries to encourage librarians, not just to store the books or other

information resources in the library, but rather to work collaboratively to support the educational process and to contribute to students' learning.

School librarians, as this study has showed, can play any role needed to support IL in Syrian schools. The students' perspectives of the school librarian could have a great influence on the nature of the role which the school librarians play, and this is dependent on the nature of the relationship and level of trust which the school librarians build with the students.

8.4.3. Other Professionals

After the training programme phase finished, the researcher was asked by the director of the Al-Zahiria Library, a public library in Damascus, to train 10 public librarians using the same programme. Although this was beyond the scope of this study, the researcher voluntarily undertook this to see to what extent such a programme could be applied beyond the school library setting. The outcomes of the programme were impressive, according to feedback from the director and staff. Many of them stated that they were able to see and understand things beyond the library and its influence on library services. This example from real life is included to indicate that other professionals and librarians might benefit from the results of this study and might be able to use some parts of this study to develop their own careers and skills.

8.4.4. Pedagogy

The concern of new education systems is to focus on how to engage the students in the learning process, and to encourage independent learning to facilitate lifelong learning. According to Williams and Wavell (2006) and Webber and Johnston (2008), it is important to employ approaches that enhance students' skills and knowledge as well as their technical ability and theoretical understanding at the same level, in order to meet everyday changes and challenges in the information environment.

The results of this study demonstrated that IL is a significant approach for supporting the educational process as well as student learning. This can be attained by encouraging learners to achieve better learning by designing specific tasks and learning materials to meet their needs. For example, the training programme devised in this study divided participants for some activities regarding their information needs. Each were then given a task that encouraged them to employ different strategies to deal with the task and to find the answer, and to then explain how the result could work in real-world problems and practices. The task

was designed to encourage learners and to include previous experience and knowledge, enabling them to understand the current weaknesses and limitations in their knowledge and skills and to start building from the point which needed more development. Educators can benefit from such examples to develop IL in their own contexts and to encourage their learners' information needs.

It is important that the educator is able to understand the differences in the learners' learning styles and to acknowledge the difficulties they are facing during learning. The educator can then accordingly encourage the design of the learners' tasks under the supervision of an educator. This will help in two different ways:

1. To make the learners understand their learning needs and weaknesses with regards to their previous knowledge.

2. To allow the educator to observe the learners' ability to discover the weaknesses in their learning and to give a great opportunity to understand each learner's learning style. For example, the learner will design the task in the way he/she knows how to achieve that task, therefore, her/his learning style will be implied in the task

8.5. Future Studies

In section 8.4, a few implications of the findings of this study for IL and Syrian school librarians were explained. It is important to undertake research to understand the cause and effect of the training programme on the school librarians' practical behaviour and to construct a grounded theory to discover the implications of the school librarians' backgrounds on the creation of the categories and changes in perspective. Furthermore, drawing on the limitations which were mentioned in Chapter 1, several recommendations for further studies in the following areas of research can be suggested.

8.5.1. School Libraries

Further research studies could be conducted to understand the current perspectives of the students', decision–makers' and school librarians' perspectives of the school library and school librarians in different contexts, cities and countries. In addition, further studies are required to discover the current situation of the school library in the Arabic world, since there is a lack of literature which provides such information.

8.5.2. IL

Further studies are required to understand other peoples' perspectives of IL in different educational, social and business contexts. Moreover, further studies are required to understand the relationship between IL and knowledge sharing, productivity, collaboration and change. Collaborative efforts are required to translate the terms of IL into Arabic. The translation should be based on studies and research that determine the actual meanings and concepts. Furthermore, the library experts and professionals from all Arab countries should work together to produce an Arabic–English dictionary and thesaurus that encompasses and presents all related librarianship terminologies

8.5.3. Methodological Area

As this is the first study in the Arabic literature to adopt a phenomenographic approach, further studies are required to examine the approach in different contexts for the study of different phenomena.

8.5.3.1. Pedagogical Area

Although the researcher has discussed the implications of the study at the pedagogical level, there is a need for further research that would show the implications and possible applications of IL within the Syrian context and other Arabic contexts; this is vital to understanding the validity and transferability of IL.

8.6. Summary of the key Questions of This Study

As mentioned in Chapter 2, this research started in early 2007 with the aim to study and understand:

1. How do school librarians conceive IL?

2. To what extent would participating in an IL programme change those conceptions of IL?

3. What are the possible applications of phenomenography in the Arabic context?

Before proceeding to summarise how the above questions were answered and to what extent this study was able to contribute to the discussion of IL, it is important to stress that the researcher was motivated by curiosity about the understanding of IL in the Syrian context. The literature review described how researchers, professionals and global organisations have stressed the need to understand and study the conceptions of IL as it is established within

different contexts. In addition, it has been observed that the dearth of such studies has caused confusion in the meaning of IL, which has in turn influenced practices. There is a need to understand the conceptions of IL, with acknowledgement to the context of where the phenomenon is occurring, in order to allow the implementation and application of a successful IL agenda. Furthermore, it appears that IL models, training materials and frameworks are the product of librarians' or academic staff's interpretations of what IL is, not on how the learners understand IL and what a learner's needs of IL are.

This study differs from previous studies of changes in people's conceptions regarding a specific phenomenon, such as that by Mckenzie (2003), because it focuses on discovering the variations in individuals' way of conceiving a specific phenomenon after receiving training and experiencing real-world practices.

Previous research studies (Bruce, 1997, Webber, 2003, Williams and Wavell, 2006) have stressed that, in order to gain an in depth understanding of IL, there is a need to discover the meanings of IL in real-life situations and to identify peoples' understandings of it, which result from their own experiences with information and IL in different contexts. In addition, Lloyd (2008) argued that IL as a phenomenon is a contextual phenomenon, which means that it's content, meanings, role and functions will be influenced by the context in which it is implemented. Hence, although the previously mentioned studies also adopted phenomenography to understand the conceptions and real life experiences of IL, they do not consider the influence of multi-experience situations in changing the perspectives and conceptions in the same context. This study was conducted to fill this gap and attempted to enhance the understanding of the possible influence of multiple experiences on individual perspectives regarding a specific phenomenon.

In this study, the school librarians experienced IL during a long-term multiple experience situation, which allowed them to conceive and experience the phenomenon of IL within different contexts and to reflect on the interpretations of IL corresponding to those contexts.

Thirteen different categories were discovered, 7 from the first phase and 6 from the second phase of interviews, and these reflected the different perspectives in different contexts. The influence of the context on the emergence of IL categories in the first phase was explicitly significant as it played the main role in directing the creation of the categories. However in the second phase, categories were not focussed on the context, but rather on the nature of IL

perspectives. Figure 26 summarises the relationship between the context and the nature of the new perspectives on IL that were articulated in this study. According to the study's categories, as well as the common themes which emerged from the first and second phase interviews, three main contexts were identified: educational context, social and workplace. For each context, the researcher summarised the nature of the IL perspectives as derived from both phases of analysis, including all thirteen categories. Figure 26 attempts to provide different ways of understanding and presenting the findings of this project; however, detailing the ideas presented is beyond the scope of this research. This new presentation, though, could be an initial thought towards producing an IL model which is relevant to the Syrian educational, social and workplace contexts.

Information literacy in Syrian school library context

Educational context

- Support educational process.
- Support learning and teaching.
- Enabler for lifelong learning.
- Encourage critical thinking
- Enabler for education movement and development.
- Support ICT learning
- Improve study skills
- Improve student's cognitive ability.
- Improve information-skills
- Improve ICT skills.
- Help learners understand their information needs

Social context, including culture and religion

- Enabler for better communication and networking
- Improve social inclusion.
- Improve the moral systems
- Promote change to human behaviour and traditional thinking and acting.
- Encourage civilized behaviour.
- Support democracy and freedom.
- Illuminate minds and thoughts.
- Support citizenship issues.
- Encourage developing a copyright law.
- Encourage the publishing.
- Encouraging sharing
- Enhance problem-solving skills

Workplace context

- Improve the communication between different parties
- Support decision making process.
- Improve the workers adoptability
- Improve employee's working skills.
- Encourage the innovation and creativity
- Increases the commitment.
- Increase employee's management skills.
- Improve employee's productivity
- Improve transferable skills.
- Encourage knowledge sharing

Figure 26: Holistic IL Model for Syrian contexts

Figure (26) presents an image of a holistic IL model which can be adopted to satisfy the Syrian needs. Accordingly IL can be implemented in different contexts holding different meanings and concepts. In each context, the nature of the IL perspectives will be different, reflecting the needs of that context. For example, in the educational context, IL supports the learning-teaching process because it helps students improve their ICT skills as well as their information skills. It also helps learners to recognise their information needs and to solve problems, and at the same time it improves their studying skills. In the social context, IL is essential to improve the quality of everyday life. This is because IL encourages sharing, communication, freedom and democracy. Although these skills are also relevant in the workplace context, IL in the workplace is vital to improve the quality of performance rather than simply the quality of life, as it improves employee commitment, knowledge sharing and communication. Again, analysis and discussion of all the issues detailed in figure 26 are beyond the scope of this research, however, these could be the basis of further studies or articles. The following sections will discuss each context and associated IL perspectives.

8.6.1. IL in the Syrian Educational Context.

8.6.1.1. Introduction
Education as a context was implicitly and explicitly pointed to in a few of the categories in this study, although it was expressed in different ways. For example, although most of the first phase categories did not explicitly mention the educational context, it was implied because the phenomenon was discussed by educationalists. In contrast, the second phases' categories in the educational context were obvious, especially the last three of the categories. The main aim of this section is to summarise the nature of IL perspectives within the educational context as they emerged in this study.

8.6.1.2. IL to Improve The Quality of Education Process
'A method to support an educational process': this category is explicitly mentioned so that IL can have a real influence on improving and developing the quality of the Syrian educational system and process because it is able to transfer the current teaching and learning process in Syrian schools to a new, practical and more efficient level. The school librarians argued that promoting IL in Syrian schools would help the pupils to become more capable of lifelong learning and to determine information and competences required to achieve better learning as well as academic achievements. They added that teaching current students using the previous methods was a genuine challenge, due to changes in the classroom setting which

included the student's learning experience, the student's needs, and the workplace requirements. IL could be the gateway which allows educationalists to change their previous perspectives of teaching and learning, and to increase their awareness of their students' learning needs.

8.6.1.3. IL to Meet The Student's Information Needs

'Subject to the purpose': this category implied that IL would help learners, not only to understand and satisfy their own information needs by allowing them to answer questions and solve problems, but would also help them to realise and acknowledge their own learning needs and to seek the required support from any possible channels. Learners with IL would become more independent and able to decide what is and is not relative to their needs**.** This, in turn, would direct pupils towards adopting the required practical and information behaviour, as well as strategic thinking.

'Using computer and Internet': this category implied that the change in the teaching-learning environment which was based on technological tools challenged the learners and educationalists. IL could support learners and anyone else involved in their learning, to meet those challenges and to cope with the new technological movement by accomplishing the required competencies.

'Long-time processes: this category implied that IL could be an enabler for educational movement and development, as well as a support for building up the required information skills, including: searching, problem solving, critical thinking, evaluating, and analysing, as well as study skills. It is a long-term process which should be started at the very basic education stages.

8.6.2. IL in The Syrian Social Context

8.6.2.1 Introduction

The outcomes of this study demonstrate that IL has a possible influence on motivating individuals to evaluate and analyse some cultural and religious knowledge. Furthermore, it enhances individual awareness of the nature of the skills required to contribute effectively to life and to solve real-world problems. In the following section, extra explanations will be provided to discuss how IL can contribute to the social context.

8.6.2.2. IL, Culture and Religion

One of the interesting results which emerged from the second phase of interviews were the categories of 'catalyst for change' and 'an illumination', which implied the possible changes which IL can promote to Syrian culture, including social and religious thought and applications. It was seen as an enabler in changing the traditional ways of thinking about religion and social relationships, because it is able to illuminate people's thought processes, and encourage sharing, communication and networking. Such skills will enable people to criticise, think outside of the box and evaluate their culture's weaknesses in order to build up better social inclusion. This, in turn, will aid the movement of freedom and democracy, which will enhance ordinary citizens' abilities to contribute more effectively to the cultural and social movement of the country. IL can encourage people to think about the dangers of some traditional aspects of culture and to change them by creating a better social life.

IL in the Syrian social context has a special meaning, because it involves cultural and religious aspects which are very sensitive areas in which people usually avoid expressing their views. IL encourages people to think freely and to face their fears of expressing their thoughts about some critical religious and cultural issues. It enables them to realise that knowledge is power because it can change their lives and help them to find new ways of thinking about critical aspects of their lives. Syrian individuals need IL in order to re-think and evaluate some weaknesses or misunderstandings of some valuable cultural and religious roles and at the same time to remove others which exert a negative influence on the social development of Syria.

8.6.2.3. IL Skills Helps to live A better Life

The 'living successfully' category, which emerged from the first phase of interviews, implied that individuals need to have the ability to learn from their mistakes and to invest previous knowledge and experience into solving real-world problems and to make decisions which might influence their future lives. Being wise and able to cope with the practical life problems of everyday is one of the most significant angles of IL in this context. IL can help people to review and evaluate different experiences, and knowledge can be used to find the solution and make decisions.

Moreover, the 'illumination category' which emerged from the second phase of interviews, implied that IL can be the candle that illuminates people's thoughts and encourages them to make appropriate decisions and solve problems. As well as the pupils' needs to learn how to

solve academic problems in school, they need to learn how to transfer problem-solving skills to real life and must be taught how to make appropriate decisions during difficult times by drawing on previous experiences and knowledge.

8.6.2.4. IL Supports Copyright Issues

Although the issue of copyright was not explicitly addressed in any of the categories which emerged, the 'innovating new thoughts and knowledge' category, which emerged from the first phase of interviews, implied this issue. The school librarians who adopted this perspective argued that IL encouraged individual innovation and created new knowledge, however this interpretation is not valid when there is a lack of respect for other people's views. As IL encourages individuals to create, then the need for a law to protect these rights is essential. The librarians stressed that the dearth of reliable copyright law in Syria negatively influences the publishing business in Syria, and in turn impacts on an individual's reading behaviour. People have stopped reading, because they get bored due to the quality of most of the currently published work available. The lack of reliable copyright laws prevents creative writers from providing their work due to a lack of trust that their rights will be protected. In other words, although the idea of copyright has not been explicitly addressed in this category, the influence of a lack of such laws could have a great influence on the movement of IL conceptions in Syria.

8.6.3. IL in the Syrian Workplace Context

8.6.3.1. Introduction

'Using the school library', 'performing duties' and 'living successfully' were categories which emerged from the first phase of interviews and were the catalyst for the emergence of the 'change', 'collaborative process' and 'illumination' categories, which emerged from the second phase of interviews. This implies that many issues relate to the nature of the skills required by school librarians which need to be acquired in order to contribute effectively to the workplace. Providing an IL training programme to employees appears to have had an influence on the school librarians' performance. In the following sections these implicit ideas are discussed.

8.6.3.2. IL Skills for the Workplace

8.6.3.2.1 Introduction

One of the most complex issues experienced in the workplace is the ability of employees to cope with new challenges arising out of changes in the marketplace environment. It is a fact that the workplace today requires a different set of skills which were not required previously. Employers today think carefully before making the decision to recruit any employee, as the level of competiveness is so high.

Although the outcome of this research did not explicitly demonstrate this issue, the categories of 'performing duties' and 'living successfully', which emerged from the first phase of interviews and the category of 'collaborative process', which emerged from the second phase of interviews implied these issues. The nature of the perspectives of IL in the context of the workplace will be discussed in more detail below.

8.6.3.2.2. Perspectives of IL in The Workplace.

The category of 'performing duties' emerged from the first phase of interviews and implies that IL has the possibility of enhancing the employee's ability to contribute effectively to the new marketplace because it encourages knowledge-sharing and enhances communication and networking skills.

In addition the categories of 'using the school library' as well as 'performing duties' imply that the school librarians need to have management skills that enable them to manage their current library resources carefully, to promote better services and to reduce spending by innovating new ideas. These could be improving recycling services, encouraging low-cost activities, and seeking funding and support from different organisations. IL, according to these interpretations, will help the school libraries to survive during times of economic crisis which often lead to reduced funding of school libraries. Depending heavily on governmental support and funding puts the school library, and in turn the school librarians, in danger, which will negatively influence the learning experience of future generations.

The same categories also imply that school librarians should possess financial, communication, management and networking skills and competencies in order to survive and cope with the regular changes in the global economy.

A few librarians who adopted the 'living successfully' and 'performing duties' categories, stressed that understanding the new worldwide economic movement was required by school librarians. Hence, school librarians need to learn how to transfer their current skills and competencies to new skills that meet the changing needs. These skills could be accomplished by being aware of the new markets' needs and adopting them. In this sense, IL can be a set of skills which include evaluating, analysing, studying, reviewing, networking and discussing the emerging issues with other peers and colleagues, in order to decide the nature of the required skills and to communicate with decision-makers and people in charge. In addition to what has been mentioned before, IL in the Syrian context, as reflected in this study, showed that Syrian school librarians conceived the phenomenon of IL as multi-experience situations. They were able to understand different meanings and perspectives of IL and to combine them into different educational, social (including culture and religion) and workplace contexts. Although the conceptions which emerged from the first phase and second phase of interviews were different, they were combined to create the image of IL in the Syrian context.

8.6.4. Information literate in the Syrian context

Before completing this journey, it is important to formulate the different images of the Syrian information literate, as they were seen by the Syrian school librarians. Those images were derived from both phases of analysis and included all thirteen categories.

An information literate pupil who is able to accomplish the required skills to search, find, use, critically evaluate, analyse and understand available information and knowledge in order to produce a new product and to solve academic problems, using available technological tools under the umbrella of a moral system that respects others' rights and efforts. These skills will enable the information literate pupil to become an independent and lifelong learner *and an*

Information literate employee who is able to understand and cope with the regular changes in the workplace environment by studying, sharing, communicating, networking, evaluating and analysing the available related information in order to create a clear image about the required skills and training needs. This employee is able to communicate with decision-makers, and to make decisions on the nature of skills required for future development. Acquiring such skills supports the creation *of an*

Information literate citizen who is able to transfer all the acquired skills, knowledge and experiences and to share, communicate and network effectively. The citizen is open and civil

to other members of society and understands and evaluates the limitations of cultural aspects, ways of thinking and believing, and social inclusion that prevent social movement and change. This is all performed under the umbrella of a moral system that respects the democracy, intellectual freedom, faith of others, social values and governmental roles.

8.7 The Final Words

This is the end of the journey which has been a great experience, and has changed and illuminated my life and thoughts forever. Although on a few occasions, I went through very painful stories, I have always been able to transfer my pain to progress. As an individual I can agree that IL is an enabler for change because studying, working and investigating it has changed me as a human. It is illuminating because, as one school librarian stated, "*It is a candle, it is a light*." It is an elite idea but not for outstanding people rather to educate outstanding individuals who are able to contribute successfully and effectively to life. In addition, it has a great possibility to support education and educationists educate information literate human.

In Addition, phenomenography frees thinking from the traditional ideas, and helps one to think beyond the written word and to make meanings and sense of the information that surrounds one. In addition, the ideas about phenomenography have made me think broadly, respect others, listen more and communicate freely, because it is mainly about seeing other peoples' perspectives, and understanding, respecting and working with them. I was very lucky in selecting IL as a topic for this research and phenomenography as a research approach and I hope that you have all enjoyed reading this journey as much as I have enjoyed tackling it.

References

Aalst, J, *et al.* (2007) *Exploring information literacy in secondary school in Hong Kong: A case study*. Hong Kong: Centre for Information Technology in Education (CITE).

Abid, A. (2004) *Information literacy for lifelong learning: A paper presented in Buenos Aires, Argentina in the 70th IFLA General Conference and Council*. [Online] Available at http://archive.ifla.org/IV/ifla70/papers/116e-Abid.pdf [Accessed 19/5/2009].

Adams, D. (2007) Lifelong learning skills and attributes: The perceptions of Australian secondary school teachers. *Issues in Educational Research*, (17)2,149-60.

Akerlind, G. (2002) *Principles and practice in phenomenographic research: A paper presented at the international symposium on Current Issues in Phenomenography conference*, ACT, Canberra.

Al-Miqdad. F. (2007) Iraqi refugees in Syria. *FMR IRAQ,* special issue, 19-22.

Al-Obaid, A. (2009) *The national report about the state of Adult Education development in the Syrian Arab Republic. A report presented in preparation for the Sixth International Conference on Adult Education (Brazil).* Available at http://www.ibe.unesco.org/International/ICE47/English/Natreps/reports/syria_ocr.pdf [Accessed 24/09/2009]

American Library Association, Presidential Committee on Information Literacy. (ALA) (1989) *Final Report*. [Online] Chicago: American Library Association. Available from: http://www.ala.org/ala/acrl/acrlpubs/whitepapers/presidential.htm [Accessed 22/04/2008]

Andretta, S. (2005) *Information literacy: empowering the learner "against all odds". Paper presented at the LILAC Conference 4 April 2005.* Imperial College, London.

Arab Organisation for Education, Culture and Science (ALESCO) (1995) *The school libraries in the Arabic regions: A white paper presented on ALESCO meeting held on Tunisia.* Tunisia: ALESCO press.

Ashoor, M. (2005) *Information literacy: case study of the KUFPM library*. *Journal of Electronic Library*, (23) 4, p. 398-404.

Ashworth, P and Lucas, U. (2000) Achieving empathy and engagement: a practical approach to design, conduct and reporting of phenomenographic research. Studies in Higher Education, 25(3), 295-308.

Audunson, R and Nordlie, R. (2003) Information literacy: the case or non-case of Norway? *Library Review*, 52(7), 319-25.

Australian and New Zealand Institute for Information Literacy, Bundy, A (ed.) (2004). *The Australian and New Zealand information literacy framework: principles, standards and practice* .2nd edition. [Online] Available at http://www.caul.edu.au/infoliteracy/InfoLiteracyFramework.pdf [Accessed 9/10/2009]

Basili, C. (2003) Theorems of information literacy: A mathematical-like approach to the discourse of information literacy. Italy: The Jagiellonian University. No 5 [Online]. Available at http://www.inib.uj.edu.pl/wyd_iinb/s3_z5/basili-n.pdf [Accessed 23/12/2009]

Beauchamp, T.L, *et al.* (1982) *Ethical Issues in Social Science Research.* London: John Hopkins University Press.

Bibliotheca Alexandrina (2005) *High-level colloquium on information literacy and lifelong learning*. UNESCO: Egypt (Conference report).

Bibliotheca Alexandrina. (2008) *Training-the–trainers in information literacy workshop documents: White papers published during the events. Alexandria,* Bibliotheca Alexandrina.

Birks, J, *et al.* (2007) *Research into the use of information literacy web resources by Arabic students*. Zayed University, United Arab Emirates.

Boekhorst, A. K. (2003) Becoming information literate in the Netherlands. *Library Review*, 52(7), 298-309.

Bowden, J and Walsh, E. (2000). (eds.). *Phenomenography*. Melbourne: RMIT University Press.

Bowden, J.A. (2000a). The nature of phenomenographic research. *In*: J.A Bowden and E Walsh (eds.). *Phenomenography.* (pp.1-18). Melbourne: RMIT Press.

Booth, S.A. (1992) *Learning to program: A phenomenographic perspective*. Göteborg, Acta Universitatis Gothoburgensis.

Booth, S. (1997). On phenomenography, learning and teaching. *Higher Education Research & Development*, 16 (2), 135-59.

Bowden, J.A. (1995) Phenomenographic research: some methodological issues. *Nordisk Pedagogic*, 15(3), 144-55.

Breivik, P. S and Gee, E. G. (1989) *Information Literacy: Revolution in the Library*. American Council on Education and Oryx Press, Phoenix, AZ.

Bruce, C. (1997). *The seven faces of information literacy*. Adelaide, Auslib Press.

Bruce, C. (1999) Phenomenography: opening a new territory for library and information science research. *The New Review of Library and Information Research*, (5)1, 31-47.

Bruce, C (2000) Information literacy research: Dimensions of an emerging collective consciousness. *Australian Academic & Research Libraries, 31*(2), 91-109.

Bruce, C.S. and Candy, P.(eds.) (2000) *Information literacy around the world: advances in programs and research.* Wagga Wagga, NSW: Charles Sturt University.

Bruce C. (2002) Information Literacy as a Catalyst for Educational Change: A Background Paper. White Paper prepared for UNESCO, the U.S. National Commission on Libraries and Information Science, and the National Forum on Information Literacy, for use at the *Information Literacy, Meetings of Experts*, Prague, The Czech Republic, July 2002. [Online] Available at:
http://www.nclis.gov/libinter/infolitconf&meet/papers/bruce-fullpaper.pdf [Accessed 7 /4/2008]

Bruce, C. (2003) *Seven faces of information literacy: towards inviting students into new experience* [Online]. Available at
http://crm.hct.ac.ae/events/archive/2003/speakers/bruce.pdf [Accessed 16/06/2008]

Bruce. C. (2006) Six Frames for Information literacy Education: a conceptual framework for interpreting the relationships between theory and practice,(5) 1 Available at:
http://www.ics.heacademy.ac.uk/italics/vol51/pdf/sixframes_final%20_1_.pdf [Accessed 12/05/2008]

Bruce, C. *et al.* (2006) Six Frames for information literacy education: exploring the challenges of applying theory to practice. *ITALICS Special issue*. Information literacy – the challenges of implementation [Online] Available at:
http://www.ics.heacademy.ac.uk/italics/vol5iss1.htm [Accessed 17/10/2009]

Bruce, C. *et al.* (2007) Six Frames for information literacy education: exploring the challenges of applying theory to practice. *In:* Andretta, S. (eds) *Challenge and Change: information literacy for the 21st century*, AUSLIB Press, Adelaide. Reproduced from *ITALICS Special issue (2006): Information literacy – the challenges of implementation.* p. 37-58

Bundy, A. (Ed). (2004) *Australian and New Zealand Information Literacy Framework principles, standards and practice.* 2nd edition. Adelaide: Australian and New Zealand

Institute for information literacy. [Online] Available at
http://www.anziil.org/resources/Info%20lit%202nd%20edition.pdf [Accessed 13/2/2010]

Burns, R. B. (2000) *Introduction to research methods* (4th Ed.). Australia: Longman.

Burns, R. (2007) *Damascus: A History*. London, Routledge.

Candy *et al*. (1994) Developing lifelong learners through undergraduate education.
Canberra: Australian Government Publishing Service. *National Board of Employment,
Education and Training Report,* 28.

Cherry, N. (2005) Phenomenography as seen by an action researcher. *In:* J. Bowden & P.
Green (Eds). *Doing Developmental Phenomenography*. Melbourne, RMIT University
Press.

Gerber, R. and C. Velde (1996). Clerical-Administrative Workers' Conceptions of
Competence in their Jobs. *Journal of Vocational Education and Training*, 48(4), 393-404.

Cope, C. (2002) *Using the analytical framework of a structure of awareness to establish
validity and reliability in phenomenographic research*. Bendigo, Department of
Information Technology La Trobe University, Bendigo.

Cope, C. (2004) Ensuring validity and reliability in phenomenographic research using the
analytical framework of structure of awareness. *Qualitative Research Journal*. (4)2, 5-18.

Creswell, J.W. (2007) *Qualitative inquiry & research design: choosing among five
approaches.* Thousand Oaks: Sage Publications.

Crawford, J and Irving, C. (2007) Information literacy, the link between secondary and
tertiary education projects and its wider implications, *Journal of Librarianship and
Information Science,* 39(1), 17-26.

Crawford, J and Irving, C (2010) *The Scottish Information Literacy Project and school libraries.* Aslib proceedings**,** forthcoming.

Dalkey, N. and Helmer, O. (1963). Delphi Technique: characteristics and sequence model to the use of experts. *Management Science*, 9(3), 458-467.

Doyle, C. (1992) *Outcome measures for information literacy within the national education goals of 1990: final report of the National Forum on Information Literacy. Summary of findings.* Washington, DC: US Department of Education. (ERIC document no; ED 351033). [Online] Available at <http://eric.ed.gov/ERICDocs/data/ericdocs2/content_storage_01/0000000b/80/23/4a/12.pdfl>. [Accessed 16/05/2009]

Doyle, C. (1994), *Information Literacy in an Information Society: A Concept for the Information Age*. ERIC, Syracuse, NY.

Drake, M. (2003) The National Commission on Libraries and Information Science: Why not? *Searcher*, 11(2), 32-7.

Dudziak, E.A. (2007) Information literacy and lifelong learning in Latin America: the challenge to build social sustainability. *Information Development*, 23(1), 43-7.

Eduserv Information Literacy Initiative (2009). [Online] Available at http://www.eduserv.org.uk/research/inflit.html [Accessed 13/7/2009]

Ekeblad, E and Bond, C. (1994) The nature of a conception: questions of context, *In*: Ballantine, R and Bruce, C (eds.), *Phenomenography: philosophy and practice* (pp 343-353). Brisbane, Aus: Queensland University of Technology, Centre of Applied Environmental and Social Education Research.

Eisenberg, M. and Berkowitz, B. (1988) Library and Information Skills Curriculum Scope and Sequence: The Big Six Skills. *School Library Media Activities*, (5), 26-28.

Eisenberg, M. and Berkowitz, B . (1996) *Helping with Homework: A Parent's Guide to Information Problem-Solving*. Syracuse, NY: ERIC Clearinghouse on Information and Technology.

Eisenberg, M *et al*. (2004) *Information Literacy: Essential Skills for the Information Age*, 2nd Edition. Westport, CT: Libraries Unlimited.

Eisenberg, M. (2007) What is the Big6? [Online] Available at http://www.big6.com/what-is-the-big6/ [Accessed 17/08/2009]

Entwistle, N. (1981) *Styles of learning and teaching*. New York: John Wiley & Sons.

Entwistle, N. (1997) Introduction: Phenomenography in higher education. Higher Education Research and Development, 16(2), 1-3.

Garner, D (eds). (2005) *The High Level Colloquium on Information Literacy and Lifelong Learning. A meeting held in Bibliotheca Alexandria* under the sponsorship of the United Nations Education, Scientific and Cultural Organization (UNESCO).

Giorgi, A. (1999) A Phenomenological Perspective on some Phenomenographic Results on Learning. *Phenomenological Psychology*, (30)2, 68-94.

Glaser, B. and Strauss, A. (1967) *The discovery of grounded theory*. Chicago: Aldine.

Global Arab Network (GAN). (2010) *Syria: Population Policy under Scrutiny*. [Online] Available at http://www.english.globalarabnetwork.com/201002134779/Culture/syria-population-policy-under-scrutiny.html [Accessed 12/09/2009]

Gorman, E and Dorner, G (2006) *Information Literacy Education in Asian Developing Countries: cultural factors*. IFLA available at http://www.ifla.org/IV/ifla72/papers/082-Gorman_Dorner-en.pdf [Accessed 16/8/2008]

Grundy, S. (1987) *Curriculum: Product or Praxis.* London: The Falmer Press.

Grundy, S. L. (1994) The Curriculum and Teaching. In E. Hatton (Ed.) *Understanding Teaching,* pp. 27-33. Sydney: Harcourt Books.

Hales, R. and Watkins, M. (2004) The Potential Contribution of Phenomenography to Study Individuals' Meanings of Environmental Responsibility. Paper presented at the 2004 *International Outdoor Education Research Conference*, La Trobe University, Bendigo, Australia.

Hasselgren, B. and Beach D. (1997). Phenomenography - a "Good-for-nothing Brother" of Phenomenology? Outline of Analysis. *Higher Education Research & Development* 16(2), 191-202.

Heather, P. (1984) A study of the use of books and libraries by children in primary schools. Sheffield: University of Sheffield, Department of Information Studies, Centre for research on User Studies. *(CRUS Occasional paper no.11).*

Hepworth, M. (2000a) Developing information literacy programs in Singapore, In: *Information literacy around the world; advances in programs and research* , edited by C.S. Bruce and P.C. Candy. (pp.51-65). Wagga Wagga, NSW: Charles Sturt University.

Herring, J, E. (1996) *Teaching Information Skills in Schools*. London: Library Association Publishing.

Herring, J, E. (1999*). Exploiting the Internet as an Information Resource in Schools.* London: Library Association Publishing.

Herring, J,E. (2003) *The Internet and Information Skills: A guide for teachers and school librarians.* London: Library Association Publishing.

Holter, I.M. and Schwartz-Barcott,D. (1993) Action Research: What is it? How has it been used and how can it be used in nursing? *Journal of Advanced Nursing* (128) 298-304.

Homann, B. (2003) German libraries at the starting line for the new task of teaching information literacy. *Library Review*, 52(7) 310-18.

Hutchinson, S. (2009) Faces and Places of China: Curriculum Unit outline. [Online] Available at http://www.ncuscr.org/files/Hutchinson_Final.pdf [Accessed 6/3/2009]

Ibid. P.7, p.497, and p.489

Information literacy in Canada: a place to discuss information literacy in Canada [online]. (2007). Available at http://blog.uwinnipeg.ca/ilig/ [Accessed 9/2/2010]

Institute of Electrical and Electronics Engineers (IEEE). (1990) *IEEE Standard Computer Dictionary: A Compilation of IEEE Standard Computer Glossaries.* New York, Institute of Electrical and Electronics Engineers: NY.

Irving, C. and Crawford, J. (2007) *Information literacy: a framework for life*. Library and information update, 6 (7-8), 52-3.

Jeremy, S. *et al.* (1996) Information Literacy as a Liberal Art. *Education Review*, (31)2, 5-31.

Jingxia, L. (2002) The Public Library and citizens' information literacy education in China: a case study of Wuhan area, China *In*: *68th IFLA Council and General Conference: August 18-24, 2002: Proceedings. The Hague: International Federation of Library Associations*. [Online] Available at http://www.ifla.org/IV/ifla68/papers/039-098e.pdf. [Accessed 12/2/2010]

Johansson, B. *et al.* (1985) An approach to describing learning as change between qualitatively different conceptions. In A.L. Pines & L.H.T. West (eds.), *Cognitive structure and conceptual change.* New York: Academic Press.

Johnston, B and Webber, S. (2004) the role of LIS faculty in the information literate university: taking over the academy? *New Library World*, 105 (1/2), 12-20.

Jonassen, D. H. (1991) Objectivism versus Constructivism: Do We Need a New Philosophical Paradigm? *Educational Technology Research and Design,* 39 (3), 5-14.

Kvale, S. (1989) To validate is to question. In: Kvale, S (ed.): *Issues of validity in qualitative research.* Lund: Studentlitteratur.

Kvale, S. (1995) *Interviews: An Introduction to Qualitative Research Interviewing.* Thousand Oaks**, CA:** Sage Publications.

Keeney, S. *et al.* (2001) A critical review of the Delphi technique as a research methodology for nursing. *International Journal of Nursing Studies*, 38,195-200.

Kember, D. and McKay, J. (1996) Action research into the quality of student learning: a paradigm for faculty development, *Journal of Higher Education*, (67) 5, 528-54.

Kember, D. (2000) *Action learning and action research: improving the quality of teaching and learning.* London: Kogan Page.

Kirk, J. (2002) *Theorising information use: managers and their work*. A PhD thesis submitted to the University of Technology in Sydney. Sydney: the University of Technology.

Kuhlthau, C.C. (1993) Seeking meaning: A process approach to library and information services. *Information management, policy and services.* Norwood, NJ: Ablex Pub.

Kuhlthau, C.C. (1993) Implementing a Process Approach to Information Skills: A Study Identifying Indicators of Success in Library Media Programs. *School Library Media Quarterly,* (22) 1, 11-8.

Kuhlthau, C.C. (1994) Impact of the Information Search Process model on library services. *Research Quarterly*, (34)1, 21-6.

Kuhlthau, C.C. (2004) *Seeking Meaning: A Process Approach to Library and Information Services*. Westport, CT: Libraries Unlimited.

Kuhlthau, C.C *et al.* (2007) *Guided Inquiry: Learning in the 21st Century*. Libraries Unlimited Inc. USA.

Lenox, M.F. and Walker, M.L. (1993) Information literacy in the educational process. *The Educational Forum,* 57(2), 312-24.

Lerner, F. (2001) *The story of libraries: from the invention of writing to the computer age*. London, Continuum International Publishing Group Ltd.

Lesher, T. (2002) *Information literacy instruction for Kuwaiti students and the role of cultural relevance.* Unpublished PhD thesis, Information Studies Department, Loughborough University.

Levy, P *et al.* (1995) An action research approach to curriculum development [Online]. *Information Research*, 1(1). Available at: http://InformationR.net/ir/1-1/paper2.html. [Accessed 26/2/2010]

Library Association: Policy Advisory Group. (2001) *Report of the Policy Advisory Group on a National Information Policy*. London: The Library Association.

Limberg, L. (1999) *Experiencing information seeking and learning: a study of the interaction between two phenomena in information research* [online]. Available at http://informationr.net/ir/5-1/paper68.html last access 17/05/2008 [Accessed 17/09/2009].

Lloyd, A., Williamson, K. (2008) Towards an understanding of information literacy in context: implications for research. *Journal of Librarianship and Information Science,* (40)1, 3-12.

Loertscher, D. (1985) The elephant technique of collection development. *Collection Management*, (7)3-4, 45-54.

Loertscher, D.V. and Woolls, B. (1997) *The Information Literacy Movement of the School Library Media Field: a preliminary summary of the research*. [Online] Available at http://slisweb.sjsu.edu/courses/250.loertscher/modelloer.html [Accessed 13/5/2009]

Lokman, I. *et al.* (1999) *Libraries and Information in the Arab world: An Annotated bibliography* (bibliographies and indexes in *Library and Information Science*). Santa Barbara, USA, Greenwood Press.

Longman: *Dictionary of Contemporary English* (2010). Liverpool, Liverpool University [Online]. Available at http://www.ldoceonline.com/ [Accessed 23/05/2009]

Lynn, M.R. *et al.* (1998) Nursing administration research priorities: a National Delphi study. *Journal of Nursing Administration* (28)5, 7-11.

MacAdam, B. (2000) From the other side of the river: re-conceptualizing the educational mission of libraries. In: Barh, A. (ed.), *Future teaching roles for academic librarians*. New York, London, Oxford, Haworth Press.

Marton, F. and Säljö, R. (1976a) On qualitative differences in learning. Outcome as a function of the learner's conception of the task. *British Journal of Educational Psychology* (46), 115-27.

Marton, F. (1981) Phenomenography: describing conceptions of the world around us. *Instructional Science*, (10)1,177-200.

Marton, F. (1986) Phenomenography: A research approach to investigate different understanding of reality. *Journal of Thought*, 21(3), 28-49.

Marton, F. (1988) Phenomenography: Exploring different conceptions of reality. In: *D.F. Fetterman (eds), Qualitative approaches to evaluation in education: The silent scientific revolution* (pp.176-205). New York, Praeger.

Marton, F. *et al.* (1993) Conceptions of learning. *International Journal of Educational Research,* (19)3, 277 – 300.

Marton, F. (1996) Cognosco ergo sum: Reflections on reflections. In: G. Dall'Alba & B. Hasselgren (eds.) *Reflections on phenomenography: Toward a Methodology*. Göteborg: University of Göteborg. p. 163-187.

Marton, F. and Booth, S. (1997) *Learning and Awareness.* Lawrence Erlbaum Associates. Mahwah, NJ.

Marton, F. (1998) Towards a theory of quality in higher education. *In*: B.Dart & G. Boulton- Lewis (Eds.), *Teaching and learning in higher education.* Camberwell, Vic., Australia: Australian Council for Educational Research.

Marton, F. and Pang M.F. (1999) Two Faces of Variation: *Proceedings of 8th European Conference for Learning and Instruction*, August 24-28. Göteborg, Sweden, Göteborg University.

Marton, F, and Booth, S. (2000) *Om lärande* [Learning and awareness]. Lund, Sweden: Studentlitteratur.

Marton, F. and Tsui, A. (2004*) Classroom discourse and the space of learning*. Lawrence Erlbaum, Hillsdale, NJ.

Masuda, K. (2002) Using "Children's Voting" in Japan to improve information literacy: Children's information use in learning activities. *Performance Measurement and Metrics.* (3)3,145-49.

Mckenzie, J. (2003) *Variation and change in university teachers' ways of experiencing teaching.* Unpublished PhD thesis, University of Technology in Sydney.

McKernan, J. (1991) *Curriculum Action Research: A Handbook of Methods and Resources for the Reflective Practitioner*. London: Kogan Page.

McCutcheon, G. and Jurg, B (1990). Alternative Perspectives on Action Research. *Theory into Practice*, (24) 3,145-50.

Merchant, L. and Hepworth, M. (2002) Information literacy of teachers and pupils in secondary schools. *Journal of Librarianship and Information Science*, 34(2), 81-90.

Mill, J.S. (1843). *A System of Logic: Ratiocinative and Inductive.* Toronto, University of Toronto Press.

Mintzberg, H Ahlstrand, B and Lampel, J (2005). *Strategy Safari: A Guided Tour through the Wilds of Strategic Management.* London, Free Press.

Moore, J. (2009) How to Eat an Elephant: Linking with Owners. *Board Leadership*, 101, 6-8.

Muir, A and Oppenheim, C. (2001) *Report on developments world-wide on national information policy.* Prepared for the Resource and Library Association. Department of Information Science, Loughborough University. London: Library Association. [Online] Available at http://archive.ifla.org/IV/ifla66/papers/120-171e.htm [Accessed 3/12/2009]

Pang, M. (2002). *Two faces of variation. On continuity in the phenomenographic movement.* Paper presented at the 2002 symposium *Current Issues in Phenomenography* of the European Association for Research into Learning and Instruction [online]. Available at http://www.anu.edu.au/cedam/ilearn/symposium/symp.html [Accessed 23/2/2009]

Pang, M.F. and Marton, F. (2003) Beyond "lesson study" - Comparing two ways of facilitating the grasp of economic concepts. *Instructional Science*, (31)3, 175-94.

Pengfei, S. and Maosheng, L. (2009) Study on Information Literacy Assessment Standards for Higher Education. *Library and Information Science Journal,* (11)9,1133-8

Peterson, L. (2001) The transition of traditional bibliographic instruction to information literacy, In: G.E. Gorman (ed.) *International Yearbook of Library and Information Management 2001/2002*. Information Services in an Electronic Environment, London, Library Association Publishing. p. 280-97.

Pickard, A.J. (2007) *Research methods in information.* London, Facet.

Pramling, I. (1994) *The basis of knowledge. A phenomenographic approach to develop children's conceptions of the world*. Göteborg, Sweden, Acta Universitatis Gothoburgensis.

Rader, H. (1991) Bibliographical instruction or information literacy. *College and Research Libraries News,* 51(1), 18-20.

Riding, P. *et al*. (1995) Action research approach to curriculum development . *Information research*, (1)1, [online]. Available at http://informationr.net/ir/1-1/paper2.html [Accessed 22/4/2010]

Rogers, R. (1994) *Teaching information skills: a review of the research and its impact on education*. London: Bowker-Saur.

Runesson, U. (1999) *The pedagogy of variation. Different ways of handling a mathematical* content. PhD dissertation summary. [Online]. Available at http://www.ped.gu.se/biorn/phgraph/civil/graphica/diss.su/runesson.html [Accessed 12/3/2009]

Säljö, R. (1988) Learning in educational settings: Methods of inquiry. *In:* P. Ramsden (Ed). *Improving Learning: New perspectives*, New York, NY, Nicholas Publishing. p.32-48.

Säljö, R. (1997). *Talk as data and practice*. *HERD,* (19)3, 203-12

Sandberg, J. (1994) *Human competence at work: An interpretative approach.* BAS, Goteborg.

Sandberg, J. (1997) Are phenomenographic results reliable? *Higher Education Research and Development*, 16 (2), 203-13.

Samuelowicz, K. and Bain, J.D. (2001) Revisiting academics' beliefs about teaching and learning. *Higher Education*, 41(3), 299-325.

School Library Association (SLA) (2006) *Information Matters: Developing information literacy skills thorough the secondary school LRC*. Swindon, SAL.

Sewell, P. (2003) How to eat an elephant. *NZ Business*, (17)5, 45-52.

Sloniowski *et al*. (2005) *Information literacy in Canada: A place to discuss information literacy in Canada.* [Online blog] Available at http://blog.uwinnipeg.ca/ilig/ [Accessed 18/4/2010]

Seaman, N. H. (2001) *Information literacy: a study of freshman student perceptions, with recommendations.* Published dissertation in partial fulfilment for a PhD, Virginia Polytechnic Institute and State University, Blacksburg, Virginia.

Snavely, L. and Cooper, N. (1997) Competing agendas in higher education: Finding a place for information literacy. *Reference & User Services Quarterly, 37*(1), 53-62.

Society of College, National and University Libraries (SCONUL) (1999). Information Skills in Higher Education: *A SCONUL Position Paper*. [Online] Available at http://www.sconul.ac.uk/groups/information_literacy/papers/Seven_pillars.html [Accessed 2/9/2009]

Stenbacka, C. (2001) Quality in qualitative research. *Qualitative Inquiry*, (5)4,465-78.

Strauss, A. and Corbin, J. (1998) *Basics of Qualitative Research Techniques and Procedures for Developing Grounded Theory.* 2nd edition. London, Sage Publication.

Sun, H. and Liu, T. (2009) Cultivation of Science Teachers' Information Literacy in China. *International Education Studies*, (2) 3, 147-15.

Svensson, L. and Hogfors, C. (1988) Conceptions as the content of teaching: improving education in mechanics *In* P. Ramsden (ed.), *Improving Learning: New Perspectives.* London, Kogan Page.

Svensson, L. (1994) Theoretical foundations of phenomenography. *In*: R. Ballantyne and C. Bruce (eds.) *Phenomenography: Philosophy and Practice Proceedings,* Brisbane, Centre for Applied Environmental and Social Education Research, QUT.

Svensson, L. (1997) Theoretical foundations of Phenomenography. *Higher Education Research & Development*, (16)2, 159–71.

Tarter, A. (2006) Building Foundations: A model of Information Literacy (IL) skills development in a Secondary School. [Online] Available at http://www.cilip.org.uk/NR/rdonlyres/2945E467-D9AB-402D-81D5-5351070CD87B/0/Schoolcasestudy.pdf [Accessed 12/3/2009]

Takenouchi, T. (2004) A consideration on the Concept of Information Literacy: Is it really "necessary for all"? *International Journal of Information Ethics*, (2)11, 1-6.

Taylor, J. (2005) *Information Literacy and the School Library Media Centre: Libraries Unlimited Guides in school librarianship*. London, Greenwood Press.

The American Association of School Librarians and the Association for Educational Communications and Technology (AASL) (1988) *Information Power: Guidelines for School Library Media Programs*. [Online] Available at http://www.ala.org/ala/mgrps/divs/aasl/guidelinesandstandards/informationpower/informationpower.cfm [Accessed 4/2/2009]

The Big Blue (2001) *The Big Blue: information skills for students*. [Online] Available at http://www.library.mmu.ac.uk/bigblue/ JISC-funded [Accessed 23/8/2009]

The Canadian School Library Association (CSLA). (2007) *Student's Information Literacy Needs in the 21th Century: Competencies for Teachers-and Librarians*. [Online] Available at http://www.csla.ca/casl/literacyneeds.html [Accessed 11/02/2009]

The Council of Australian University Librarians. (2001) *Information Literacy Standards. Australia: Library Publications* [Online]. Available at http://www.caul.edu.au/ [Accessed 18/07/2009]

The International Librarians Information Literacy Annual Conference (LILAC) (2007). 'Solution to deep problems.' A paper presented at LILAC Conference held at Manchester Metropolitan University. *Update,* (6)10, 17.

The Middle East Information network, (2010) *The Constitution of Syria*. [Online] Available at http://www.mideastinfo.com/documents/Syria_Constitution.htm [Accessed 27/10/2009]

The Syrian Arab News Agency (NASA). (2009). *Syria: Ministry of Tourism...4 million Tourists during First 8 Months of Year*. [Online] Available at http://www.sana.org/. [Accessed 20/09/2009]

The United Nations Educational, Scientific and Cultural Organization (UNECO) (2008). Training-the-trainers in information literacy workshops. [Online]. Available at http://portal.unesco.org/ci/en/ev.php-URL_ID=25623&URL_DO=DO_TOPIC&URL_SECTION=201.html . [Accessed 19/7/2008].

The United Nations of Education, Science and Culture Organization (UNESCO). (2000) *The National Report of the Syrian Arab Republic on "Education for All"*. Part I, page 10 of 24, cf. EFA FORUM

The United Nations Educational, Scientific and Cultural Organization (NESCO) (2008). *UNESCO and Information literacy.* Paris: Information Society Division: Communication and Information Sector. [Online] Available at http://www.humanit.org/PID/Unesco_april08/Ito_InformationLiteracy.pdf [Accessed 16/03/2009]

The United Nations of Education, Science and Culture Organization (UNESCO) (2010*). Syrian Arab Republic.* [Online] Available at http://whc.unesco.org/en/statesparties/sy [Accessed 22/09/2009]

The Office for Standards in Education (OFSTED) (2006) *Good school libraries: making a difference to learning*. [Online] Available at 'http://www.ttrb.ac.uk/ViewArticle2.aspx?anchorId=14448&selectedId=14448&contentId=12256 [Accessed 29/02/2008]

Thirion*,* P. and Pochet*,* B. (2003) Information literac**y** in Belgium: An overview by the EduDOC group. *In*: Basili. C (Ed**.). *Information Literacy in the European Union*, Rome, Italian National Research Council, 12-24.

Tizzard, P. *et al.* (2001) *The Icebreaker's Pocketbook*. London, Management Pocketbooks.

Todd, R. (2001). Transitions for preferred futures of school libraries: Knowledge space, not information place, Connections, not collections, Actions, not positions Evidence, not advocacy. *Paper presented at the 30*[th] *Annual Conference of the International Association of School Librarianship, Auckland, New Zealand*.

Toshihiko, Z. (2009) *Considering what information literacy is.* Fukuoka: Kyushu Sangyo University.

Tovote, C. (2003) NORDINFOlit - a Nordic information literacy institute without walls. *In:* C. Basili, (Ed.) *Information Literacy in Europe.* Rome, Italian National Research Council.

Trigwell, K. and Prosser, M. (1996) Changing Approaches to Teaching: A relational perspective. *Studies in Higher Education,* (21)3, 275-84.

Trigwell, K. and Reid, A. (1998) Introduction: work-based learning and the students' perspective. *Higher Education Research and Development,* 17(2), 141–54.

Virkus, S. (2003) Information literacy in Europe: a literature review. [Online] *Information Research*, 8(4) Available at http://informationr.net/ir/8-4/paper159.html [Accessed 19/04/2010]

Walker, M. (2001) *Reconstructing professionalism in university teaching: teacher and learner in action*. Buckingham, SRHE and Open University Press

Webber, S. and Johnston, B. (2000) Conceptions of information literacy: new perspectives and implications. *Journal of Information Science*, 26(6), 381-97.

Webber, S. and Johnston, B. (2002) Assessment for information literacy. Paper presented at the *International Conference on IT and Information Literacy*, 20th-22nd March 2002, Glasgow Scotland.

Webber, S. and Johnston , B. (2003) Information literacy in the United Kingdom: a critical review. In: Basili, C. (ED) *Information Literacy in Europe.* Rome, Italian National Research Council. p. 258-83.

Webber, S. (2003) *Information literacy definitions and modules*. [Online] Available at http://dis.shef.ac.uk/literacy/definitions.htm [Accessed 20/02/2008]

Webber, S. and Johnston, B. (2004) Perspectives on the Information Literate University, *SCONUL Focus*, 33, 33-35

Webber, S. and Johnston, B. (2005) Information literacy in the curriculum: selected findings from a phenomenographic study of UK conceptions of, and pedagogy for, information literacy" In: C. Rust, (Ed.) *Improving Student Learning: Diversity and Inclusivity: Proceedings of the 11th ISL symposium, Birmingham, 6-8 September 2004. Oxford: Oxford Brookes University* p. 212-24.

Webber, S. *et al.* (2005) A comparison of UK academics' conceptions of information literacy in two disciplines: English and Marketing. *Library and Information Research*, 29(93), 4-15.

Webber, S. and Johnston, B. (2008). Fostering lifelong Learning through Information literacy education: Exploring conceptions in different disciplines and framing pedagogies for lifelong learning. A presentation presented at the *Lifelong Learning Conference,* Yeppon, Australia, 18 June, 2008.

Webber, S. (2008) *Variation theory as a basis for designing a module on teaching information literacy.* Information Studies Department Seminar, Sheffield University.

Webber, S. (2010) *Internet Challenge at Oeiras a Ler*. [Online] Available at http://information-literacy.blogspot.com/ [Accessed 08/06/10]

Whelan, D (2010). Obama Budget Eliminates School Library Funds for Poor Schools. *School Library Journal*. [Online] Available at

http://www.schoolsmatter.info/2010/02/obama-budget-eliminates-school-library.html.
[Accessed 12/2/2010]

Whitehead, M.J, and Quinlan, C.A. (2002) Canada: An information literacy case study (A White Paper prepared for UNESCO, the U.S. National Commission on Libraries and Information Science, and the National Forum on Information Literacy, for use at the *Information Literacy Meeting of Experts,* Prague, The Czech Republic).[Online]. Available at http://www.nclis.gov/libinter/infolitconf&meet/papers/quinlan-fullpaper.pdf [Accessed 18/09/2009]

Whitmore, J. (1992) *Coaching for performance: A practical guide to growing your own skills*. London: Nicholas Brealy Publishing.

Willmott, T. (2008) Train them and retain them. *Caterer & Hotelkeeper* (198)4551, 15-8.

Williams, D. and Wavell, C. (2006) *Information literacy in the classroom: Secondary school teachers' conceptions*. Aberdeen Business School. National Curriculum in Action. (2005). [Online] Available at http://www.ncaction.org.uk/search/index.htm?view=1;subject_id=Gg;ictsub_id=ICTSUB 01 [Accessed 29/09/08]

Wood, A. (2007) *A comprehensive library staff training programme in the information age.* London, Chandos Publishing.

Woolls, B. (1991) Assessment Methods: On Beyond Craver: A Project in Process. In: *Instructional Interventions for Information Use: Papers of Treasure Mountain, VI,* 14-57.

Wu, Y.D. and Kendall, S.K. (2006) Teaching faculty's perspectives on business information literacy. *Reference Services Review*, 34(1), 86-96.

Yon, M. (2001) *City of Ugarit at Tell Ras Shamra*. Ann Arbor, Michigan, Eisenbrauns.

Zurkowski, P. G. (1974). *The Information Environment: Relationships and Priorities*. National Commission on Libraries and Information Science, Washington.

List of References Published in Arabic

الحلبوني , خ .(AL-Halboni, K)   (2008)   دمشق: مدينة الياسمين .(*Damascus: the City of Jasmines*)
Proceedings of the city of Arabic culture festival (Published in Arabic). [Online] Available at
http://www.reefnet.gov.sy/booksproject/jame3a/2adab/dam/11jasmine.pdf

[Accessed 17/3/20009]

علي , أ (Ali, A) دراسة واقع المكتبات المدرسية (Study the current situation of the school libraries)

Damascus University Press, Damascus

قباني , ن. (Qabbani, N) (1991) دمشق (Damascus) Al-Ahali house, Damascus

النقيب, م (2008) (AL-Nakiep, M). مهارات البحث عن المعلومات وإعداد البحوث فى البيئة الرقمية

(*Searching for information and making research skills in the digital environment*).
Cairo, Lebanese and Egyptian house

هلال ,ر .(1998) (.Halall, R) المكتبة المدرسية ودورها في بناء وتنمية ثقافة الطالب.

. (The school library and its role in building and developing a culture of the student)

Cairo-The Science and Culture House

وزارة التربية والتعليم في سوريا (the Ministry of Education) شروط التسجيل في المدارس الثانوية

(The essential conditions to register in secondary school). [Online] Available at
http://syrianeducation.org.sy/nstyle/index.php?op=articulos&task=verart&aid=563

[Accessed 28/10/2009]

وزارة التربية والتعليم في سوريا (the Ministry of Education) التقريرالسنوي (The annual report).
Damascus: Syria, the Ministry of Education

وزارة السياحة السّورية (The Syrian Ministry of tourism). الخرائط السياحية. (the tourism's maps)
[Online]Available at
http://www.syriatourism.org/modules.php?op=modload&name=My_eGallery&file=index&do=showgall&gid=263 [Accessed 23/10/2009]

Bibliography

Ashworth, P. and Lucas, U. (1998) What is the "World" of phenomenography? *Scandinavian Journal of Education Research*, 42 (4). [Online] Available at <http://pdfserve.informaworld.com/717914_731213557_746619876.pdf>. [Accessed 4/2/2009].

Andretta, S. (2007) Phenomenography: a conceptual framework for information literacy education. *Aslib Proceedings*, 59(2), 152-68.

Andretta, S. (2008) Facilitating Information Literacy Education (FILE). In A. Brine, (Ed.) *Handbook of library training practice and development 3*, Gower Publishing Ltd

Bandura. A. (1986) *Social foundation of thought and action: A social cognitive theory*. Englewood Cliffs, N.J, Prentice-Hall.

Bandura, A. and Walters, R.H. (1963) *Social Learning and Personality Development*. New York, Holt, Rinehart and Winston

Bandura, A. (2001). Social cognitive theory: An agentive perspective. *Annual Review of Psychology, 52*, 1-26.

Booth, S.A. (1997) On phenomenography, learning and teaching. *Higher Education Research and Development*, 16(2), 135–58.

Bowden, J. A. and Green, P. (2000). The nature of phenomenographic research. *In* J.A. Bowden & E. Walsh (Eds.), *Phenomenography.* Melbourne, RMIT University Press. p. 1-18.

Bowden, J.A. and Green, P. (2005) *Doing developmental phenomenography*. Melbourne, RMIT University Press.

Bowden, J. (2005). Reflections on the phenomenographic research process. *In* J. Bowden & P. Green (Eds.) *Doing Developmental Phenomenography, Qualitative Research Methods Series*. Melbourne, RMIT University Press.

Breivik, P. (1999) Information literacy: revolution in education. *Reference Services Review*, (27)3, 271-76.

Buzan, B. and Buzan, T. (2003*) The Mind Maps Book: Radiant thinking –Major Evolution in Human Thought*. London, BBC Active.

Buzan , T. (2006) *The Ultimate Books of Mind Maps.* London, Harper Collins Publishers.

Burns, J. (1994) Extending critique within phenomenography. *In*: R. Ballantyne and C. Bruce (Eds.) *Proceedings of phenomenography: Philosophy and practice*. Brisbane, QLD: Queensland University of technology Publication and Printing. p.71-6.

Corrall, S. (2005) *Information literacy: Progress and prospects for the UK*. London: LILAC.

Checkland, P. (1999) *Soft System methodology in Action*. London, John Wiley and Sons.

Ernest, P. (1995) The one and the many. *In*: L.P. Steffe and J.E. Gale (Eds.) *Constructivism in education*. Hillsdale, NJ, Lawrence Erlbaum Associates. p. 459-86.

Gagne, M.R. and Medsker, K. (1995) *The Conditions of Learning: Training Applications*. London, Wadsworth Publishing.

Glatthorn, A. and Joyner, L. (2005). *Writing the winning thesis or dissertation: A step by step guide.* Second Edition. California, Corwin Press.

Giorgi, A. (1999) A phenomenological perspective on some phenomenographic results on learning. *Journal of Phenomenological Psychology*, 30(2) 68–93.

Giustini, D. (2001) *Shifts of perspective: a preliminary look at constructivism phenomenography and socio –cultural learning theories*. [Online] Available at http://weblogs.elearning.ubc.ca/googlescholar/ADHE541Giustini.pdf
 [Accessed 18/05/2008]

Greenfield, T. (2002) *Research Method for Postgraduates.* 2nd ed. USA, Oxford University Press Inc.

Gurwitsch, A. (1964) *The Field of Consciousness*. Pittsburgh, Duquesne University Press.

Herring, J. (1992) *Information technology in schools: the role of the school librarian and the teacher*. London, Library association publications.

Holliday, A. (2002) *Doing and Writing Qualitative Research.* London, SAGE.

Hornung, E. (2007). The smart ones: one –person librarians in Ireland and continuing professional development information research: *Proceedings of the Sixth International Conference on Conceptions of Library and Information Science—"Featuring the Future*". [Online] Available at: http://information.net/ir/12-4/colis/colisp06.html [Accessed 12/6/2008]

Husserl, E. (1980) *Phenomenology and the Foundations of the Sciences*. Translated by T. E. Klein, Jr. and W. E. Pohl. The Hague, Nijhoff.

International Federation Library Association (IFLA)(2006) *The school library and information literacy: the perfect combinations*. IFLA, School Libraries and Resource Centres. [Online]. Available at http://archive.ifla.org/VII/s11/news/school-newsletter42.pdf [Accessed 19/09/2008]

Jacob, E.K., Shaw, D. (1998) Socio-cognitive perspectives on representation. *In:* M.E. Williams (Ed.) *Annual Review of Information Science and Technology (ARIST)*. Medford, NJ, Information Today. p. 8-131.

Johansson, B. *et al.* (1985) An approach to describing learning as change between qualitatively different conceptions. *In*: A.L. Pines and L.H.T. West (eds.), *Cognitive Structure and Conceptual Change.* New York, Academic Press.

Kuhlthau, C.C. (1991) Inside the search process: information seeking from the user's perspective. *Journal of the American Society of Information Science*, (42)4, 71-361

Limberg, L. (1999) *Experiencing information seeking and learning: a study of the interaction between two phenomena information research*, 5(1). [Online] Available at http://informationr.net/ir/5-1/paper68.html [Accessed 17/05/2008]

Marton, F. *et al*.(1993) Conceptions of Learning. *International Journal of Educational Research,* 19(3), 277–300.

Nahid, G. (2003) Understanding Reliability and Validity in Qualitative Research. The Qualitative Report (8)4. [Online] Available at: http://ace.upm.edu.my/~lateef/Handouts%20-%20dce%205920/golafshani%20%20reliability%20and%20validity%20in%20qual%20research.pdf [Accessed 13/3/2009]

Narayanan, R. and Munoo, R. (2003) Creating information literacy as Corporate Products: Perspective and Experience from Singapore. Berlin, *69th IFLA General Conference and Council.*

Peacock, J. (2001) Drive, Revive, survive and thrive: going the distance for information literacy. *RAISS Conference, Melbourne.*

Richardson, J. (1999) The concept and methods of phenomenographic research. *Review of Education Research*, 69(1), 53-82.

Schuster, P. M. (2002) *Concept Mapping: A Critical–thinking Approach to Care Planning.* London, F.A. Davis Company.

Thomas, R.M. (2003) *Blending qualitative & quantitative research methods in theses and dissertations.* California, Sage.

Tom, W. and Goad (2002) *Information literacy and workplace performance*. Australia, Green Wood Publishing Group.

Trigwell, K. (2000) Phenomenography: variation and discernment. *In*: C. Rust, (Ed.) *Improving student learning, Proceeding of the 1999th International Symposium.* Oxford Centre for Staff and Learning Development, Oxford. p.75 – 85.

Trigwell, K. (2001) Judging University Teaching *International Journal of Academic Development*, 6(1), 65 – 73.

Trigwell, K. (2002) Approaches to Teaching Design Subjects: a quantitative analysis. *Journal of Art, Design and Communication in Higher Education*, 1, 69 - 80

Uljens, M. (1996) On the philosophical foundation of phenomenography. *In*: G. Dall'Alba and B. Hasselgren (eds.) *Reflections on Phenomenography.* Goteborg, Acta Universitatis Gothenburgensis. p. 105–30.

Wallace, M. and Alison, W. (2006). *Critical reading and writing of postgraduate theses*. Los Angeles, London, SAGE publications.

Webber, S. (2007-2010) Information literacy Blog [Online]. Available at http://information-literacy.blogspot.com/ [daily visit]

Wilson, T.D. (1999) Models in information behaviour research. *Journal of Documentation*, 55(3). [Online] Available at: http://informationr.net/tdw/publ/papers/1999JDoc.html. [Accessed 18/2/2009]

Verplanken, B. *et al.* (1992) Need for cognition and external information search effort. *Journal of Research in Personality* 26, 128-36.

Vrasidas, C. (2000) Constructivism versus objectivism: Implications for interaction, course design, and evaluation in distance education. *International Journal of Educational Telecommunications*, 6(4), 339-62.

List of Audio-visual materials

Designed for learning: School libraries (2007) [DVD] London, Chartered Institute of Library and Information Professionals.

Effective interviewing (1997) an audio training programme based on the book by John Fletcher [Audio] London, Kogan Page.

E-literate (2009) [Video] The University of California. [Online] Available at http://www.newliteracies.gseis.ucla.edu/video/index.html [Accessed 23/2/2009]

How to communicate effectively (1997) An audio training programme based on the book by Bert Decker [Audio] . London, Kogan Page.

How to motivate people (1997)An audio training programme based on the book by Twyla Dell [Audio recording] London, Kogan Page.

Wright, H.V. (1993) *Interpersonal skills, a training manual for library staff* by Sandra Hartington Mills, for the Scottish Academic Libraries Co-operative Training Group, edited by. [Multimedia] London, Task Force Pro Libra.

Miller, W.R. *et al*. (1998) *Motivational interviewing , an introduction to motivational interviewing* [Video] Albuquerque, University of New Mexico.

Never take no for an answer (1991) an audio training programme based on a book by Samfrits Le Poole [Audio] London, Kogan Page.

Secrets of Body Language (2008) [DVD] Canada, NTSC.

Step to Success: Information literacy (2008). [Video] Australia, Australian School Library Association (ASLA) Publication.,

Appendix 1: Ethical documents

1.1. Permission Sheet

Dear Participant

First, I would like to thank you for accepting my invitation to attend this interview. Second, it is vital to read, understand and sign this sheet which is produced to explain to you: your rights, my rights and the data protection process. Please take your time when reading this sheet and do not hesitate to ask me if you have any queries.

Your rights

You have the right to:

1. Clarify any point you cannot understand related to the interview questions, process, and techniques

2. Receive enough information about the purpose and aim of the study and interview (please read the information and communication sheet for more information)

3. Understand the interview process

4. Withdraw at any time during the interview and the programme, and all recorded information will be deleted

5. Keep your personal details, such as your name, hidden

6. Review the interview after finishing the records (as required)

7. Change your answers if you do not feel comfortable

8. Clarify any question you could not understand

9. Refuse to answer any questions about which you did not feel comfortable

My rights

I have the right to

1. Ask you any question related to the studied topic

2. Record the interview

3. Use interview information for academic purposes

4. Use parts of the interview (quotations) without mentioning your name

5. Give my supervisor enough information to clarify details related to specific quotations. This means that I am the only one who is eligible to see, read and analyse your information

Interviews Data Protection process

1. Conduct the interview in a private place

2. Avoid asking personal questions

3. Keep names hidden

4. Keep the recorded information in a secure place

5. Destroy all information after submitting the work

6. Keep all transcripts and records in a special place

7. Keep your recorded data safe

8. Do not allow any person except yourself, the supervisor and perhaps the translator to listen to the records

If you understand and agree please sign the sheet and date it

--Date--------------------------------

--And data--------------------------------

1.2. Communication and Information sheet

The title of the research: the variations and changes in the Syrian school librarian's conceptions of IL.

Introduction

The researcher firstly would like to thank you for accepting her invitation to attend this interview, bearing in mind that this study would not be possible without your valuable contribution. Please, before making your final decision about taking part in this process, the researcher would like to invite you to read these couple of sheets carefully, understand them and discuss them with her if you have any concerns or questions. It is important to know that this research is a long term research which will require from you participation in the first phase interviews, the training programme and the second phase of interviews.

The Ministry's permission

As you are an employee of the Ministry of Education, it was vital to seek the required permission to conduct this research, including three phases, from the Minister of Education (please see the enclosed sheet). This means that your participation in this study is validated by your employer, who gave me permission to conduct this research. Furthermore, the Ministry of Education will cover the costs of your participation.

The project's aims and purpose

This study aims to understand and study the Syrian school librarian's conceptions of IL before and after attending an IL programme. The data will be collected for this study by interviewing a set of Syrian school librarians from different backgrounds, age, genders and ethical groups. The researcher plans to complete her research within three years. As she started on the 1st of April 2007, she aims to finish by 1st of April 2010.

Selection criteria

You might ask yourself why you were chosen to contribute to this research. The answer is very simple; because you are a school librarian and what this research is aiming to investigate is the conceptions of school librarians. If you are a qualified school librarian who graduated

from a Library and Information Science department, then you have been purposely selected due to the limited number of school librarians who work in Damascus and its suburbs. If you are not a qualified librarian who has been a teacher who came to the library, then your name has been selected randomly.

The value arising from participation

Although it is totally your decision to go ahead and contribute to this research, however, it might be a valuable experience to take a part because:

1. The research's main aim is to study the conceptions of school librarians in an attempt to develop a new understanding of the meanings and conceptions of IL. Although, the outcomes of this study will not be explicit in the short-term, in the long term time, school librarians will benefit from the conceptions which will emerge from this study.

2. The research includes a training programme. This means that you will have the chance to access funded training and enjoy the experience.

3. The Ministry of Education will provide the participants with an attendance certificate which will add extra value to your CV.

The possible risk

There are no risks associated with taking part in this study. You are only expected to answer the interview questions and attend the training programme without any interference.

Your roles

It is simple, inexpensive and enjoyable. All you need to do is to:

1. Answer, freely and openly the researcher's questions, which will be mainly about your thoughts, experiences and definition of IL and to attend the training programme, then to answer the next phase interview questions

2. Communicate with the researcher via her email address salhashahd@live.co.uk to solve any issue which might cause any inconvenience. If your issue has not be resolved, then you can communicate with Ms Webber (s.webber@sheffield.ac.uk), who is the researcher's supervisor. If the problem still exists, you can contact the University Registrar and Secretary to report the issue.

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The researcher's roles

The researcher's job involves a wide range of duties, including:

- Ensuring that your decision has been made after gaining a clear vision about the research approach and process.

- Designing the interview questions for both phases and conducting the interviews with you.

- Designing the training programme materials.

- Ensuring that the collected data are secure.

- Ensuring that the data will be kept in a safe, secure and confidential environment.

- Ensuring that all ethical and professional issues were considered before the research started.

- Notifying the supervisor of any emerging issues.

- Ensuring that all of the data which will be collected are strictly confidential and that none of the participants are identified in any reports or publications.

- Reporting the findings from the collected data in a PhD thesis which will be held at the library of the University of Sheffield, Al-assad national library in Damascus and the central library in Damascus University. The data may also be used as the basis to publish or present some academic papers. There is a possibility that the data can be used for subsequent research. The researcher will:

- Send a summary of the results to the participants on request.

- Record the interviews in both phases

- Inform all of the participants and the Ministry of Education about any changes to the process.

It is significant that this research is funded by the Ministry of Higher Education, the Ministry of Education and the researcher herself. It was supervised by Dr Roger Crawford from the University of Huddersfield's Education and Professional Development Department, and then

Mr Sheila Webber, from Sheffield University's Information Studies Department. The research was ethically approved via the Education and Professional Development department ethics review procedure.

For any enquiries, please contact either the researcher or her supervisor. The contact addresses are:

Shahd Salha salhashahd@live.co.uk

Department of Information Studies

The University of Sheffield

Regent Court

211 Portobello Street

Sheffield

S1 4DP

Ms. Shelia Webber s.webber@sheffield.ac.uk

Department of Information Studies

The University of Sheffield

Regent Court,

211 Portobello Street

Sheffield S1 4DP

Many thanks for your cooperation and participation. A copy of this sheet and a signed permission sheet will be given to you for your reference.

1.3. The Ministry of Education permission

الجمهورية العربية السورية

وزارة التربية

التاريخ   ٩ / ٧ / ١٤٢٩هـ

الموافق لـ   ٧/ ٩/ ٢٠٠٨م

الرقم   ٤٣ ط ٥ (١٤/٤)

الموضوع: إقامة دورة لتصميم وتنفيذ برنامج لتطوير مهارات المعلومات لأمناء المكتبات المدرسية / تكميلية/

إلى مديرية التربية في محافظة: دمشق ـ ريف دمشق

تقرر إقامة دورة لتصميم وتنفيذ برنامج لتطوير مهارات المعلومات لأمناء المكتبات المدرسية/ تكميلية/، وذلك وفق ما يأتي:

١ ـ أهداف الدورة:

● تعريف أمناء المكتبات المدرسية على آخر ما توصل إليه علم المكتبات والمعلومات في العمل في مجال تطوير برامج مهارات المعلومات.

● تطوير المهارات الحالية لأمناء المكتبات المدرسية لمساعدة في خلق بيئة مدرسية متفاعلة وخلاقة.

● تفعيل دور أمين المكتبة المدرسية في العملية التربوية.

ـ مكان الدورة: مركز الشهيد باسل الأسد لتأهيل مدرسي العلوم وأمناء المخابر (ركن الدين)

ـ تاريخ الدورة: تنفذ الدورة بدءاً من ٢٠٠٩/٢/٣م ولغاية ٢٠٠٩/٢/١٧م.

● يقوم أمناء المكتبات المتدربين بالتطبيق في مدارسهم بعد انتهاء الدورة.

● تقوم المديرية بمتابعة أمناء المكتبات المتدربين في مدارسهم.

ـ توقيت الدورة: من الساعة العاشرة صباحاً ولغاية الساعة الثانية ظهراً.

ـ مستلزمات الدورة: تقوم مديرية تربية دمشق بتأمين مستلزمات الدورة من قرطاسية وضيافة.

ـ تقوم مديريات التربية بما يلي:

= توجيه كتب الدعوة للدارسين وأخذ توقيعهم عليها وتضمينها الكتاب الوزاري رقم ٢٢٧٠ /٥٤٣ (١٤/٤) تاريخ ٢٦ / ٢ / ١٩٨٨م وتعديلاته رقم ٤٣٣/ ٥٤٣ (١٤/٤) تاريخ ١٩٩٦/٣/١٤ م و رقم ٥٤٣/٥٣٤ (١٤/٤) تاريخ ١٩٩٦/٣/٢٨و الخاص بمساءلة المتخلفين عن حضور الدورات التدريبية.

ـ منح الدارسين أجور نقله وانتقاله من المحافظة التي يوجد فيها مركز عمله إلى المحافظة التي يكون فيها مكان الدورة وفق البلاغ الوزاري رقم ١٦٨٣/٥٤٣ (١٤/٤) تاريخ ٢٠٠٧/٦/١٧م أصولاً.

ـ التوجه إلى الكادر التدريبي في مدارس المتدربين بضرورة التعاون معهم لإنجاح البرنامج.

ـ توافي مديرية الإعداد والتدريب فور انتهاء الدورة بـ:

ـ برنامج الدورة مفصلاً موضحاً فيه: اليوم والساعة مع أسماء المحاضرين وعناوين محاضراتهم.

ـ تقرير المشرف عليها متضمناً: سير الدورة ـ إيجابياتها ـ سلبياتها ـ المقترحات الخاصة لها.

ـ جداول دوام الدارسين مع ذاتياتهم   ـ جداول دوام المحاضرين والإداريين

لأخذ العلم وإجراء ما يلزم

معاون وزير التربية

الدكتور فرح سليمان المطلق

صورة إلى:

مكتب السيد معاون الوزير

مديرية الإعداد والتدريب/ج/١١٧

مديرية: المعلوماتية ـ البحوث ـ تقنيات التعليم ـ المحاسبة

المكتب الصحفي

دائرة: الإعداد والتدريب ـ المناهج ـ المحاسبة ـ في مديرية تربية: دمشق ـ ريف دمشق

مركز الشهيد باسل الأسد لتدريب مركز الشهيد باسل الأسد لتأهيل مدرسي العلوم وأمناء المخابر (ركن الدين)

الجمهورية العربية السورية

وزارة التربية

السـيد الوزيــر

بناء على موافقتكم المسطرة على كتاب السيدة شهد صالحة المتعلق بتطبيق بحث الدكتوراه:

نقتــرح:

الموافقـة على التوجيه إلى مديرية الإعداد والتدريب ليتم إدراج الدورة التدريبية ضمن خطتها للعام
٢٠٠٨-٢٠٠٩ على النحو الآتي:

– العنوان: تنفيذ برنامج تطوير مهارات المعلومات لأمناء المكتبات المدرسية في سوريا.

– الفئة المستهدفة: أمناء المكتبات – الحلقة الثانية – مدارس دمشق وريف دمشق.

– المدة الزمنية: أسبوعان / من بداية شهر آب /.

– المكان: قاعة تدريب /أو/ مدرسة (مزودة بحاسوب).

وتحصـل الباحثة على موافقة المتابعة في المدارس التي يعمل فيها أمناء وأمينات المكتبات الذين تم
تدريبهم وعدد من المدارس الأخرى لتستكمل الباحثة عملها لمتابعة التطبيق ومقارنة النتائج، وذلك حتى
نهاية كانون الثاني عام ٢٠٠٨.

دمشق في: ١١ / ١١ / ٢٠٠٧

مديرة البحوث   وزير التربية   دائرة التقويم
رشا شعبان   الدكتور حسني سور   فريال حمود

١٤   ٢٠٠٧

دائرة المقوّم

مديرة البحوث

1.4. The university approval

University of
HUDDERSFIELD
Inspiring tomorrow's professionals

Sheila Webber
Information School
The University of Sheffield
Regent Court
211 Portobello Street
Sheffield
S1 4DP

2 December 2010

To Whom It May Concern

Dear Ms Webber

Shahd Salha – Ethical Approval

This is to confirm that as a part of the normal recruitment, registration and progression procedures here at Huddersfield, Shahd submitted her proposal for ethical approval to the School of Education and Professional Development's Research Committee, and ethical approval was granted by the Chair following a meeting on 24 October 2007.

Yours sincerely

Peter Sanderson
Director of Graduate Education
School of Education and Professional Development

Appendix 2: interviews' schedules

2.1 First phase interview schedule

2.1.1. Introduction

1. Arrive 20 minutes early at the interview location to ensure that the atmosphere is suitable for conducting the interview and that health and safety issues are covered, and to prepare the recording equipment and test the sound in the room

2. Welcome the interviewee

3. Ensure that the interview setting is comfortable

4. Ensure that the place, the time and the estimated time of an hour for the interview are still acceptable to the interviewee

5. Explain to the interviewee that the questions can vary and that sometimes extra explanation will be required

6. Provide the interviewee with paper and pen to write or draw the things he/she cannot state verbally

7. Inform the interviewee that the interviewer might take notes during the interview

8. Inform the interviewee that two different types of recording equipment will be used to reduce the risk of record failure

9. Create a pleasant atmosphere by starting with a general conversation

   2.1. 2. The interview

Once the interviewee has been informed and is comfortable, the two different types of recording equipment will be switched on. The researcher will start the interview by welcoming and thanking the interviewee again and quickly review the information mentioned in the information and communication sheet. Further, she will orally check that the interviewee has give permission for the interview to be conducted and recorded.

2.1.2. 1. Warm up questions

1. Are you a qualified school librarian or a classroom teacher?

2. Have you heard the term IL before?

3. Where?

2.1.2.2. IL conceptions questions

1. How can you describe IL?

2. Can you describe it in a different way?

3. Why did you describe it in the way you did?

4. Do you think that is any other way to describe it?

5. As a qualified/non-qualified school librarian, how do you think qualified/non-qualified describes the term?

6. Why do you think they will describe it in the way you mentioned?

2.1.2.3. Information literate questions

1. As a school librarian, how do you describe information literate students?

2. Why did you describe them in this way?

3. In what other ways can you describe being information literate?

4. How do you describe information literate in the school?

5. Why did you describe it in this way?

6. What other possible types of description are there?

7. When do you describe a student as information literate, in your experience? And why?

8. How do you describe being information literate in the classroom?

9. Why did you describe it in that way?

10. How do you describe information literate librarians?

11. Why did you describe them in that way?

12. In what other ways can you describe information literate librarians?

2.1.2.4. Conclusion

1. Would you like to re answer any question?

2. Do you like to ask any questions?

3. Do you think that all of the questions were clear?

Thank you very much for your participation and look forward to seeing you on the training programme. Please save a copy of the signed permission sheet.

Those were the main focused questions and a few other deductive questions were asked based on the interviewee's responses.

2.2 second phase interview schedule

2.2.1. Introduction

Following the same structure adopted in the first phase interview, ensure that the interview is happy about completing the journey and answering the second phase interview questions.

2.2.2. The warm up part

Review with the interviewee his/her interview record, avoiding any comments or sounds in order to avoid giving any impression or idea that what has been said is right or wrong in order to avoid influencing the interviewees' perspectives.

2.2.3. The conceptions questions

1. Well, from the last interview, what do you think about the meanings of IL you provided?

2. Why do you think that?

3. I would like you please to describe how you see IL now?

4. Why did you describe it in this way?

5. Try to describe it in a different way.

6. How do you think other librarians will describe it and why?

7. To what extent do you think your new ideas are different from your previous ones?

8. Why do you think that?

9. To what extent do you think the idea of IL is related to the Syrian context and why?

10. What do you think is the ideal meaning of IL that suits the Syrian context?

11. Why do you think that?

12. Any other thoughts?

13. To what extent do you think the idea of IL as presented in the training progarmme is related to the Syrian context and why?

14. Can you describe being information literate?

15. Why did you describe it in this way?

16. Try to describe it in different ways.

17. Do you think other librarians will describe it in the same way?

18. How do you think they are going to describe it?

19. How do you think this new perspective is different from your previous one? Why do you think that change happened?

20. Can you describe the information literate student?

21. Why did you describe him/her in this way?

22. To what extent is your new perspective different from your previous one?

23. What is the ideal description of an information literate student and why?

24. Would you describe yourself as information literate and why?

25. Do you think that the people you met on the programme are information literate and why?

26. To what extent are your new ideas about information literate librarians differ from previous perspectives and why?

27. What role can IL play in our schools?

28. Why do you think that?

29. Can you think of any other roles?

30. Why did you think of those roles?

31. Would you like to re answer any questions?

32. Would like to ask me any questions?

Thank you very much for your participation and looking forward to seeing you on the training programme. Please save a copy of the signed permission sheet.

Those were the main focused question and a few other deductive questions were asked based on the interviewee's responses.

Appendix 3: The IL training programme exercises

2009

المقدمة

منذ عشرين عاماً ونيف بدأت أدبيات **علم المكتبات المدرسية** تأخذ منحاً جديداً يختلف تماماً عما كان سائداً من قبل . فبعد أن كانت المكتبات المدرسية عبارة عن مستودعات لحفظ الكتب لتداولها بين التلاميذ من خلال أمين/ة المكتبة والذي كان جل همه حفظ الكتب من الضياع والتلف حتى على حساب حركة الإعارة . أصبحت **المكتبة المدرسية** مركز مصادر تعلم مهمتها بث الاشعاع العلمي ونشر الثقافة المعلوماتية لرفد المناهج المدرسية وتحويل فكرة التعليم إلى فكرة التعلم مدى الحياة أو التعلم لاجل التعلم. هذه النقلة النوعية في مفهوم **المكتبة المدرسية** أدى بدوره إلى تغير في مفهوم أمين المكتبة من أمين مستودع للكتب المدرسية إلى أخصائي وماهر معلومات . أمين المكتبة أخصائي وماهر المعلومات هو *الشخص القادر على توظيف كافة المهارات والأدوات المطلوبة لاستخراج و انتقاء واستخلاص وتحليل وتنظيم وإدارة وتقييم كافة مصادر المعلومات المتوفرة من حولنا مع قدرته على تطوير ذاته والتفاعل والتواصل مع كل من حوله لبناء معرفة جديدة وتحقيق التغيير*

سلسلة المحاضرات هذه أُعدت كجزء أساسي من برنامج تدريبي معد لتهيأة أمناء **المكتبات المدرسية** بمفهومها القديم ليكونوا أمناء **مكتبات مدرسية** أخصائي وماهري معلومات. المحاضرات قدمت في برنامج سمي **برنامج تطوير مهارات المعلومات لأمناء المكتبات المدرسية في دمشق وريفها** . البرنامج صمم من قبل الباحثة شهد صالحة . الباحثة حاصلة على شهادة الليسانس في علم المكتبات والمعلومات في جامعة دمشق بالترتيب الأول في عام 1998 ومن ثم شهادة الماجستير في علم أنظمة المعلومات من جامعة هدرسفيلد في بريطانيا عام 2006 ومن ثم شهادة الدبلوما في علم التواصل الأنساني من جامعة تورنتو الكندية 2007 وهي الأن في المرحلة النهائية من رسالة الدكتوراه في إختصاص مهارات المعلومات في المكتبات المدرسية من جامعة شيفيلد في بريطانيا . عملت الباحثة أخصائية معلومات في مركز المعلومات القومي وهيئة الموسوعة العربية في الفترة بين 1999-2001 ومن ثم معيدة في جامعة دمشق – قسم المكتبات والمعلومات2002-2005 حالياً هي طالبة دكتوراه و مدرس مساعد في جامعتي هدرسفيلد وشيفيلد بإختصاص إدارة المعرفة.

هذا الدليل المطبوع هو عبارة عن سبع عشرة عنواناً جمعت وطبعت لتكون دليل عمل للدارسين والراغبين بتطوير معارفهم في علم المكتبات المدرسية . أرجو أن تجدوا الفائدة المرجوة والمتعة في استخدامه

سلسلة محاضرات برنامج تطوير مهارات المعلومات لأمناء المكتبات المدرسية في دمشق وريفها

SHAHD SALHA

2/17/2009

المحتويات

تمرين يوم عمل المحاضرة التمهيدية

- حدد موقفك من البرنامج

البرنامج يعنيني لأنه

البرنامج لا يعنيني لإنه

- المحاضرة التمهيدية

كانت مفيدة لي لأنها--

لم تك مفيدة لأنها--

- أشعر بأن البرنامج سيدعم قدراتي ومهاراتي في المجالات التالية :

تمارين يوم العمل الأول من مرحلة البناء الأكاديمي

التمرين الأول

❖ عرفوا معنى أدوات الاتصال والتكنلوجيا

❖ ماهي أهم هذه الأدوات؟

❖ حددوا استخدامات أدوات الاتصال والتكنلوجيا في المكتبة المدرسية؟

❖ حددوا جملة المهارات المرتبطة بالحاسب التي يتمتع بها أفراد مجموعتك ؟

❖ قارنوا المستويات المختلفة وحاولوا التوصل إلى صيغة وسطية ؟

التمرين الثاني

استخرجوا الكلمات المفتاحية المطلوبة للبحث عن الموضوعات التالية:

1. الأدب الفارسي وانعكاساته على الثقافة العربية – أحمد أمين

2. أمراض السرطان في الغرب :أسبابها وطرق العلاج والوقاية – د . خالد أبو خالد

3. الايدز : اخطاره وطرق الوقاية_ المنظمة العربية للتربية والثقافة والعلوم

4. ليالي الحلمية- نجيب محفوظ

التمرين الثالث

ماهي المرادفات اللغوية والعلمية للمفردات التالية والمرادف الانكليزي

الحاسب

الانترنيت

الموقع الالكتروني

البريد الالكتروني

المدونة الالكترونية

التمرين الرابع

ماهي الخطوات العملية التي ينبغي أن نتبعها للبحث على الشبكة؟

التمارين التطبيقية ليوم العمل الأول لمرحلة البناء الأكاديمي

التطبيق الأول

1. استخدموا محرك البحث جوجل للبحث عن الموضوعات التالية:

البرمجة اللغوية العصبية

تقييم المواقع الالكترونية

استخدامBoolean

2. قيموا المواقع الأربعة اللأولى بالعودة إلى قائمة أسس التقييم المرفقة

3. استخدموا محرك البحث ياهو للبحث عن الموضوعات ذاتها .

4. قارنوا النتائج وثبتوها على كراس المجموعة

التطبيق الثاني

ابحثوا في الموضوعات التالية على شبكة الانترنيت (بما لايزيد عن 200 كلمة) واكتبوا تقريراً كاملاً. يجب أن تستخدموا كافة أنواع المعلومات المتاحة من نص , صورة و اشكال بيانية مع اثبات المراجع (35 .د) 10- للمشاركة . كل مجموعة تعالج الموضوع الخاص بمجموعتها فقط

المجموعة الاولى

الحاسب الآلي : تعريفه ,نشأته و تطوره

المجموعة الثانية

البريد الالكتروني: تعريفه , نشأته , استخداماته

المجموعة الثالثة

أدوات الاتصال والتكنلوجيا : معناها , انتشارها وتطورها

المجموعة الرابعة

الانترنيت : تعريفه , نشأته, استخداماته

المجموعة الخامسة

المدونات الالكترونية : تعريفه , نشأته وتطوره

المجموعة السادسة

الحياة الثانية : تعريفها , تطورها , استخداماتها.

المجموعة السابعة

محركات البحث العالمية : تعريفها, تطورها , اشهرها

المجموعة الثامنة

الكلمات المفتاحية : معناها , طرق استخدامها , كيفية بناءها

قائمة أسس التقييم

1. هل من الواضح من كتب المعلومات

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نعم   لا

2. هل الهدف من الصفحة واضح

نعم   لا

3. هل حقق الموقع الهدف من إنشائه

نعم   لا

4. هل المعلومات المقدمة في الموقع ذات صلة بموضوع البحث

نعم   لا

5. هل من الممكن التأكد من صحة المعلومات المنشورة بمعنى آخر هل ذكرت المراجع التي استقيت منها المعلومات

نعم   لا

6. هل ذكر متى أنشأ الموقع

نعم   لا

7. هل المعلومات المقدمة متحيزة أو متطرفة لجماعة أو فكرة معينة

نعم   لا

8. هل يقدم الموقع روابط لمواقع أخرى

نعم   لا

التمارين العملية ليوم العمل الثاني من مرحلة البناء الأكاديمي

التمرين الأول

أجيبوا عن الأسئلة التالية :

ما هو تعريف البحث العلمي ؟

ما هي أنواع البحوث العلمية ؟

ما هو الفرق بين البحث العلمي والبحث الأكاديمي؟

متى نطلق على بحث اسم بحث العلمي ؟

التمرين الثاني

ما هي الخطوات الأساسية البحث العلمي؟

التمرين الثالث

ما هي أكثر أدوات البحث العلمي شيوعاً (عددوها وعرفوها)

التمارين العملية التطبيقية ليوم العمل الثاني من مرحلة البناء الأكاديمي

التمرين العملي التطبيقي الأول

ما هي الأمور التي تؤدي إلى نجاح استبيانك؟

التمرين العملي التطبيقي الثاني

صمموا استبيان مؤلف من 10 أسئلة للوقوف على رأي الطلاب وأعضاء الهيئة التدريسية في مجموعاتكم الموجودة في المكتبة

التمرين العملي التطبيقي الثالث

فرغوا البيانات واستخلصوا النتائج

التمرين العملي التطبيقي الرابع

اجر مقابلة مع زميلتك/ ك لا تتجاوز الخمس دقائق اسأليها/ه خلالها عن مشاركته/ها في البرنامج (سجل/ي المقابلة على جهاز الموبايل خاصتك)

التمرين العملي التطبيقي الخامس

فرغوا بيانات المقابلة واستخلصوا النتائج

تقييم وتحليل الاستبيانات والمقابلات

التمرين الأول

ماهي نقاط الضعف والقوة في الاستبيان التالي

أجب عن الاستبيان التالي .

- كم سنة صار لك مدرس ؟
- كم مرة تزور المكتبة في الأسبوع ؟
- لماذا تزور المكتبة ؟
- ماهو رأيك بأمين المكتبة ؟
- ماهو رأيك بالكتب الموجودة في المكتبة ؟
- هل ترغب بإضافة شيء آخر .

التمرين الثاني

استخرجوا نتائج الاستبيان التالي

عنوان الاستبيان

أسباب تراجع أو عدم زيارتكم لمكتبتكم

عزيزي/ تي عضو الهيئة التدريسية . عانت مكتبتنا المدرسية (مركز مصادر التعلم) في الأونة الاخيرة من ضعف في حركة الإعارة والزيارة من قبلكم فقمت بتصميم هذا الاستبيان للوقوف على الأسباب الحقيقية التي تمنعكم من زيارة مكتبتكم (مركز مصادر التعلم) والإستفادة من مقنياتها .أرجو منكم منحي دقائق معددوة من وقتكم الثمين للإجابة على استبياني في سبيل التوصل إلى مستوى أفضل لخدمتكم وتحسين أداء مكتبتكم.

<div dir="rtl">

أسئلة الإستبيان

ضع إشارة + بجانب إجابتك (رجاءً)

أ. **أنا**

- ذكر
- أنثى

ب. **صار لي في سلك التعليم**

- أقل من سنتين
- بين سنتين وخمس
- بين ستة وتسع سنين
- أكثر من عشرسنين

ت. **صار لي في هذه المدرسة**

- أقل من سنتين
- بين سنتين وخمس
- بين ستة وتسع سنين
- أكثر من عشرسنين

ث. **هل تعلم بوجود مكتبة في مدرستنا ؟**

- نعم
- لا

ج. **أزور المكتبة**

- يومياً
- أسبوعياً
- شهرياً
- سنويا
- لا أزور (لماذا)

ح. **أزور المكتبة**

- لاتحدث لأمينة المكتبة
- لأستعير وسائل إيضاح
- لأستعير كتاب لنفسي
- لأستعير كتاب لابني
- لأحضر لدرسي
- لاأتعرف على جديدها
- لاسباب أخرى (حدد/ي رجاءً)

</div>

خ. مجموعات الكتب في المكتبة

- غنية
- مقبولة
- فقيرة
- غير ذلك (حدد/ي)

د. مجموعات المجلات في المكتبة

- غنية
- مقبولة
- جيدة
- غير ذلك

ذ. الأنشطة المقدمة من قبل المكتبة

- غنية
- مقبولة
- جيدة
- غير ذلك

ر. ماذا ترغب أن تحتوي مكتبتك/ي المدرسية ؟

ز. أمين/ة مكتبتنا المدرسية

- واع/ية
- متسيب /ية
- غير ملتزم/ة
- نشيط/ة
- اجتماعي /ة
- ممل/ة
- منظم/ة
- خبير/ة
- ذكي/ة
- فعال/ة

س. هل ترغب/ي باضافة أي شيْ آخر ؟

شكراً لاجابتك وتعاونك ☺

التمرين الثالث

حللوا نتائج الاستبيان واكتبوا التقرير النهائي

التمرين الرابع

تواجه/ين مشكلة مع مدير/ة المدرسة في عدم قدرته/ا على فهم دورك كأمين مكتبة (مدير/ة مركز مصادر تعلم) .
ترغب/ين في إجراء مقابلة معه/ا للوقوف على الأسباب الحقيقية وراء ذلك . مدة المقابلة يجب أن لاتزيد على 5 دقائق

إدارة العمل

1. قسموا مجموعتكم إلى قسمين كل قسم مؤلف من فردين .
2. ليلعب أحدكم دور المكتبي/ة والآخر/ى دور المدير/ة (5 د)
3. تبادلوا الأدوار
4. سجلوا مقابلاتكم على جهاز الموبايل

خطوات العمل :

في بداية المقابلة

1. أعط/ي المديرة الإحساس بالاطمئنان بتأكيد سرية التعامل مع المعلومات التي تقديمها وعدم استخدامها لأي غرض غير تحديد احتياجات التطوير
2. حاول/ي إزالة أي توتر أو قلق قد يبدو عليها.
3. ضع/ي أهمية الحوار في الوصول إلى نتائج ايجابية.
4. استأذن/يها بتسجيلها

خلال المقابلة

- ابتسموا طيلة فترة المقابلة
- لاتقاطعوه/ا خلال الحديث
- ساعدوه/ا على فهم السؤال
- اقصر/ي الحديث على موضوع الهدف ولا تسمح بالخروج عنه.
- شجعي/ها على التعبير عن رأيه/ا
- استمع/ي جيدا.
- أهتم/ي بالتعبير عن الإحساس بالشعور من جانبه/ا
- لاحظ/ي حركات الجسده/ا
- احترم /ي فترات الصمت.
- حاول/ي تدعيم النقاش بالأمثلة الحية.
- ابتعد/ي عن التحيز.
- سجل/ي البيانات ولا تعتمد على الذاكرة في ذلك.
- لاتسترسل/ي في التعليق والحكم على آراءه/ا

في نهاية المقابلة

- تأكد/ي من صحة المعلومات

- تأكد/ي من أنه/ا لا يرغب بزيادة أي معلومة إضافية

- أشكريها على وقتها

مساعدة

إذا رغبتم يمكن أن تستخدموا جملة الأسئلة التالية :

1. من هو برأيك أمين المكتبة؟
2. هل لديك/ ي فكرة ماهي المهام الحقيقية لأمين/ة المكتبة ؟
3. من أين أتيت بهذه الفكرة ؟
4. هل ترغبين بإضافة أي شيء آخر

التمرين الخامس

اعيدوا الاستماع إلى المقابلات وحاولوا استنتاج القضايا الرئيسية . اكتبوها على شكل نقاط في دفتر ملاحظاتكم

إرشادات لضمان مستوى الأداء

السادة الدارسين يرجى الالتزام بالقواعد التالية لتحقيق الأداء الأمثل والنتيجة المطلوبة من البرنامج :

1. التأكد من تحقيق المستوى الأكمل من مشاركة كافة الأعضاء في التطبيقات العملية والتمارين .

2. عدم ترك قاعة التدريب قبل إتمام الهدف المطلوب تحقيقه . الهدف المراد تحقيقه يجب أن يتم تحديده قبل البدء بالتدريب بالتشاور بين قائد المجموعة وعناصره.

3. عدم ترك المجموعات للعمل بدون تقديم تقرير مكتوب عن ما تم تحقيقه للقائد العام للمجموعات (المدربة)

4. الالتزام بمواعيد الحضور والمغادرة والتوقف عن تقديم الأعذار .

5. قائد المجموعة مسؤول أمام القائد العام للمجموعات عن:

   ➢ أداء المجموعة

   ➢ تحقيق الأهداف

   ➢ الإلتزام العام

   ➢ مساعدة الأعضاء الضعيفة وعدم إهمالها

   ➢ تأمين متطلبات المجموعة ونقل طلباتهم إلى القائد العام للمجموعات

   ➢ المحافظة على المواد المطبوعة والمقدمة من قبل قائد المجموعة

   ➢ ضمان التفاعل الدائم والحقيقي وشرح النقاط الغامضة والمبهمة للأعضاء .

شكراً لكم متمنية لكم برنامج موفق ومحقق : -)

المدربة

شهد صالحة

تقييم الأداء التدريبي للتمارين العملية والتطبيقية لعمل المجموعات للأسبوع الأول

1. <u>ناقش العناصر التالية</u>

   ➢ تحقيق الهدف
   ➢ التفاعل
   ➢ التعاون
   ➢ الأداء
   ➢ الألتزام
   ➢ الصعوبات

2. اكتبوا تقرير مفصل عن أداء المجموعة بناءاً على نتائج مناقشة العناصر السابقة وقدموه لقائد المجموعة الكبرى

التمارين العملية ليوم عمل اليوم الثالث من مرحلة البناء الأكاديمي

التمرين الأول

1. صمموا سوات لموضوع النشر الالكتروني للكتب العربية

2. ما هي نقاط الضعف والقوة في هذا البرنامج؟\

التمرين الثاني

صمموا الخريطة العقلية للموضوعات التالية

- مهارات المعلومات في المكتبات المدرسية
- أستخدام الحاسب الالكتروني في المكتبة المدرسية
- الثقافة الاجتماعية في بيئة المدرسة

التمرين الثالث

ارسموا الصورة الغنية لعملية توزيع الكتب المدرسية وجملة العلاقات ذات الصلة

التمارين العملية ليوم العمل الخامس من مرحلة البناء الأكاديمي

التمرين الأول

1. عرفوا الثقافة الاجتماعية ؟
2. حددوا مجموعة من السلوكياتك الفردية التي تعتقد أن لها ارتباطات بالثقافة الاجتماعية؟
3. حددوا مجموعة من السلوكيات الاجتماعية التي تعتقد أن لها ارتباطات بالثقافة الاجتماعية ؟

التمرين الثاني

‣ حددوا خمس غايات ضمنية وغايات مصرحة

‣ حددوا مجموعة من الغايات المصرحة التي أساسها ضمني

‣ كيف تؤثر هذه الغايات على أفعالنا اليومية

التمرين الثالث

حددوا جملة من الاخلاقيات الايجابية والسلبية السائدة في مجتمعنا. في المدرسة ، العمل ، الشارع ، الجامعة والمنزل

التمرين الرابع

اكتبوا في الجدول التالي جملة الألفاظ المستخدمة في الأماكن التالية وقارنوا بينها

المنزل	المؤسسات الحكومية	الشارع	المدرسة	مكان العبادة

‣ أختروا جملة من الكلمات التي تستخدمها في كل بيئة؟

‣ أستخدموها بلغتكم المحكية ؟

‣ قارنوا بينها .

‣ ناقشوا في المجموعة كيف أثرت ثقافتكم الاجتماعية بلغتكم .

التمرين الخامس

ناقش القضية التالية

1. ما هي الثقافة الاجتماعية في الحكم على أمين المكتبة المدرسية بمعنى اخر كيف يحكم على أمين المكتبة المدرسية في مجتمعنا لماذا ؟

2. كيف أثر هذا على تطورنا كمجتمع ؟

3. كيف أثر هذا على نجاحنا المادي والمعنوي (ثقتك بنفسك)

4. كيف انعكس هذا على حياتك اليومية

التمارين التطبيقية العملية ليومي العمل السادس والسابع

التمرين الأول

اكتب تقريراً كاملاً عن النتائج العملية للتمرينين التطبيقيين الأول والثاني ليوم العمل الثاني معالجاً فيه النقاط التالية :

1. النتائج المحققة مع الدليل

2. طريقة التحقيق

3. الصعوبات

استخدموا برنامج الورد 2007 لكتابة التقرير واحفظه على سطح المكتب باسم المجموعة . الخط المطلوب1.5 المسافة بين السطر والآخر -12- Time New Roman

التمرين الثاني

1. أنشئوا بريداً الكترونياً باستخدام ياهو yahoo كرابط للتأسيس

<u>خطوات الإنشاء</u>

- اتصل/ي بالشبكة العنكبوتية

- اكتب/ي بمكان عنوان الرابط www.yahoo.com

- اضغط/ي على Mail

- اختار /ي عبارة sign up

- إملأ/ي الحقول المراد ملأها

- اختار /ي عنواناً بريدياً لنفسك وكلمة سر

- في حال طلب منك عنوان بريدي أخر يمكنك وضع عنواني البريدي وهو shahdsalha@hotmail.co.uk

2. أرسلوا بريداً الكترونياً إلى عنواني البريدي shahd.salha@yahoo.co.uk

التمرين الثاني

- استخدموا برنامج الميكروسوفت ورد 2007 لاعداد جدول بعناوين الكتب التالية
- د. الضباب، أحمد "أساليب ومناهج البحث العلمي في العلوم الاجتماعية"

د. رشوان، حسين عبد الحميد أحمد (1989) "العلم والبحث العلمي: دراسة في مناهج العلوم"

- د. عدس، عبد الرحمن د. كايد عبد الحق د. ذوقان عبيدات "البحث العلمي: مفهومه، أدواته، أساليبه"
- د. بدر، أحمد (1989) "أصول البحث العلمي ومناهجه"
- د. بوحوش، عمار ود. محمد محمود الذنيبات "مناهج البحث العلمي وطرق إعداد البحوث"
- د. دويدري، رجاء وحيد "البحث العلمي: أساسياته النظرية وممارسته العلمية"
- د. العساف، صالح بن حمد (2000) "دليل الباحث في العلوم السلوكية"
- د. غرايبية، فوزي وآخرون (2002) "أساليب البحث العلمي في العلوم الاجتماعية
- إبراهيم، درويش مرعي، (1990م)، إعداد وكتابة البحث العلمي: البحوث ورسائل الماجستير والدكتوراه، مكتبة الفاروق الحديثة، القاهرة.
- ـأبو سليمان، عبدالوهَّاب إبراهيم، (1400هـ)، كتابةُ البحث العلميِّ ومصادر الدراسات الإسلاميَّة، دار الشروق، جدَّة.
- أبو سليمان، عبدالوهَّاب إبراهيم، (1993م)، كتابةُ البحث العلميِّ ومصادر الدراسات الفقهيَّة، دار الشروق، جدَّة.
- بارسونز، س ج، (1996م)، فنُّ إعداد وكتابة البحوث والرسائل الجامعيَّة، ترجمة أحمد النكلاوي ومصري حنورة، مكتبة نهضة الشرق، القاهرة.
- بدوي، عبدالرحمن، (1977م)، مناهجُ البحث العلميِّ، الطبعة الثالثة، وكالة المطبوعات، الكويت.
- القاضي، يوسف مصطفى، (1404هـ)، مناهجُ البحوث وكتابتها، دار المريخ، الرياض

إرشادات

- ضمنوا الجدول الحقول التالية

اسم المؤلف / عنوان المطبوع / تاريخ النشر / مكان النشر / تاريخ النشر

- استخدموا الخط time new roman بقياس 12
- استخدموا الخط المائل لاسم المؤلف والعريض لعنوان الكتاب

التمرين الثالث

ثبتوا البيانات التالية على شكل بياني (اختاروا الشكل الذي ترغبون)

خلال الفصل الدراسي الاول من عام 2008 بلغت نسبة الطلاب المستعيرين من مركز مصادر التعلم 4.6 في الفصل الثاني من نفس العام بلغت النسبة 4.4 . في الفصل الأول من عام 2007 بلغت النسبة 2.3 وفي الفصل الثاني بلغت 3.7