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## Exploring Information Literacy (IL) Practices in Primary Schools: A case of Pakistan

**By:**

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## **ABSTRACT**

Information literacy (IL) is an opportunity for those who want to be independent learners. This study explored the IL practices in primary schools of Lahore, Pakistan. The literature review process identified that there is dearth of research based studies on IL in Pakistan. In Pakistan IL practices can be grouped into two categories: formal and informal. Unfortunately, these efforts have not been reported in the literature. The researcher based on her personal knowledge can confirm that most of the IL efforts in Pakistan are informal and at higher education level. Therefore, the study aimed to illuminate IL practices of teachers and pupils in primary schools in Lahore through an exploratory multiple case study approach.

This study adopted a social constructivist stance (which is often combined with an interpretive approach) to investigate these IL practices. Lahore is one of the big cities of Pakistan and capital city of the province Punjab (Pakistan). The ontological and epistemological stance of the present study takes a qualitative approach to understand the phenomenon in depth. After considering four possible qualitative methods (Phenomenography, Phenomenology, Grounded Theory and case study) case study approach was identified as having the best fit with the study's objectives. The data was gathered through interviews, focus groups, task based activities, documents analysis and observation, in order to see the situation from different lenses. Additionally, the national Pakistani context for primary school education was outlined, and key elements of the Pakistani National Curriculum were analysed for evidence of IL. Situational analysis was adopted as a second approach to analysing the data, to explore the research aim in a wider context.

The six primary schools' (Public, Private trust, Private un-registered and Private elite class) cases were identified and selected after seeking data collection permission. The study participants were grade one and two teachers (class teachers and English language teachers), school children (5-7 years of age) and librarians. In total 11 teachers' interviews, two librarians' interviews and 12 focus groups with pupils were conducted from selected primary schools. The findings revealed that there was no IL practice in public, private trust and private un-registered schools. In addition, findings highlighted that teachers were teaching through traditional methods and the content of activity based and inquiry based teaching was missing. However, in the elite class private school, teachers were motivated and conducting classroom activities including creative writing and practice of thinking skills in order to organize information.

It emerged that the school librarian and library teacher in public and elite class private schools had no role in IL instruction and they were not aware of this concept. Additionally, the results of six activity based tasks which were conducted after focus groups to assess children's IL skills revealed that children had limited exposure to a variety of information sources. They ranked their elder brother/sisters and sources (books) used by them as very high. On the other hand, elite class private school children ranked internet (Google) and books high as their information sources. Analysis of related documents (English language, Mathematics and General Knowledge national curriculum and teacher guides) showed that English language curriculum and teacher guides have many provisions to integrate IL instruction, however the curriculum was not in practice in the selected schools.

The researcher is the first person who investigated the information literacy situation at primary school level in Pakistan using a novel combination of thematic and situational analysis. The national implementation IL model based which emerged from the findings can be used by practitioners who wish to foster greater engagement with IL at the primary school level, and as a guide for future researchers. An Information literacy process- based framework for primary school children in Pakistan is proposed, based on case study findings. Finally, the situational analysis has revealed key factors which are implicated in the Pakistani context for IL in primary school education.

## **DEDICATION**

*Dedicated to my loving mother*

*This PhD thesis is dedicated to my mother who sacrificed her health and wealth to provide me continuous support in building my academic career and keeping me successful on this path of learning.*

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## **Chapter 1 : Introduction**

This chapter will focus on the background of the present study and will discuss how the idea originated. In this chapter the significance of the study and research questions and objectives are also discussed. The chapter addresses the gap in literature on information literacy (IL) in the school sector and presents the unsatisfactory situation in Pakistan. The structure of the thesis is outlined to show the logical links and researcher's research journey is added to show overall research experience and how the study progressed.

### **1.1 Background & significance of the study**

This section will establish the importance of IL in school education and the poor state of IL and libraries in schools in Pakistan. The old practice of keeping important literature out of children's reach is archaic; librarians should reach the children early in their lives to influence the kind of adults they may become (Walter, 2010). Today, students not only need to learn how to find information but also what to do with this information (Eisenberg, 2011). The role of school libraries has also evolved from promoting reading to providing extensive reference services. Studies found that children do not trust adults and like to learn things for themselves (Walter, 2010). Today, libraries are facing the challenge of producing information literate children through IL instructions. Children who live in this information age must be equipped with the skills to access, use and evaluate information ("School libraries", 2008). Traditional information and research skills are not adequate due to the presence of extensive electronic information sources and internet. Schools must be equipped with new ways to prepare students to question and to do research (McKenzie, 2005).

Rapid growth of information over the past 30-40 years has made it impossible to prepare students without learning IL skills (Heider, 2009). Information competencies play key role in lifelong learning and achieving initial steps in the attainment of educational goals (Lau, 2006). Information literacy is imperative in 21<sup>st</sup> century regardless of the age and experience (Society of College, 2011). Julien (2005) reported that in the 1990s all positions advertised for academic reference librarians, demanded IL instruction skills and many library and information science schools included IL course in their MLIS (Masters in Library & Information Science) curricula. Information instruction is one of the major functions of libraries and library media centres. Librarians can be the best partners to modernize existing curriculum and providing learning opportunities within the classroom ("School libraries", 2008).

Studies confirmed that strong school library media programs can impact positively on students learning, literacy and reading scores (Lonsdale, 2000). Across the research, US studies showed that students studying in schools with libraries scored higher and learn more than students studying in schools without libraries ("School libraries", 2008). Fitzsimmons, Chairman NCLIS (National Commission on Libraries and Information Science) wrote a letter to President George W. Bush emphasizing the importance of school libraries:

"We must understand the fundamental contributions school libraries make to learning outcomes. First, when school librarians collaborate with classroom teachers to enrich curriculum content, they help create more authentic learning experiences. Second, school library collections inform, educate, entertain, and enrich students at all levels....When students are able to...explore information that is meaningful to them, they not only learn faster but their literacy skills grow rapidly; they learn how to learn" ("School libraries",2008, p.5)

Todd & Kuhlthau (2004) conducted a study on Ohio school libraries to measure students' learning through libraries. The study reported very positive role of libraries in the process of using information and finding appropriate resources. In this era students cannot achieve their study targets without practicing information literacy skills (Ranaweera, 2008). Lonsdale (2000) established that children libraries play a vital role in supporting literacy practice. Smalley (2004) conducted a case study to investigate the difference between high school students come from schools with a librarian and without a librarian. The study findings clearly indicated that students who come from school with a librarian are more familiar with library skills and basic concepts of information organization than other students. Latham & Gross (2008) stressed that it is important to investigate and ensure that students at each level must be prepared to move into next level and to be lifelong learners.

Library associations in the world, reacting to this increased flow of information, have developed IL standards for higher and school education. However, the IL instruction is still not focused in many childhood classrooms (Heider, 2009). Latham & Gross (2008) indicated a serious IL gap in the education of high school and college students. Cahoy (2002) based on her experience and work with school standards found serious gaps between school and college IL standards and suggested making a link between learning IL at school and at college. Studies indicated that IL practice in schools is penetrating very slowly and pupils at school level are not able to apply cognitive skills (evaluating), although they are good in basic IL skills (Locating & selecting) (Merchant & Hepworth, 2002; Beautyman, 2011; Ismail, Dorner, Oliver, 2012).

Students are not familiar with IL concept terminology and new teachers do not have clear understanding of teaching IL in classrooms (Marcia & Heather, 2012). The researchers identified that developing countries are facing almost the same problems (Ameen & Gorman, 2009). The more deprived situations in schools have been observed by UNESCO (United Nations, Educational, Scientific and Cultural Organization) in South-East Asian countries. In 2004, UNESCO in collaboration with IFLA proposed a project "Development of information literacy through school libraries in South-East Asian countries". The project aimed to create better IL understanding, while assessing the current state of IL in education and to recognize school libraries as a catalyst in proving IL instructions. The surveys of different countries reported:

- Lack of awareness about IL in some countries
- Lack of school libraries
- School libraries are under budget
- Little involvement of school libraries and librarians in teaching IL
- Lack of qualified school librarians
- Insufficient library collections
- No cooperation from school administrators to understand the need of IL in teaching (United Nations, Educational, Scientific and Cultural Organization [UNESCO], 2006).

The same undesirable situation appears in Pakistan. While writing a column in a daily newspaper Khan (2013, February 9) established that there are 454 public (publically funded) schools in Lahore, Pakistan and more than 300 schools do not have functional libraries. As far as the school facilities are concerned, statistics showed that public primary schools lack basic facilities for example black boards, textbooks, desks. Private schools are better than public schools in terms of facilities and the overall situation of primary schools is much better in urban areas (Lynd, 2007). A major barrier in implementing IL in Asian developing countries' educational systems is lack of support from education policy makers. The education system is not flexible to integrate IL instruction, it is simply teacher centered and set according to text books. The situation is better in private schools, however only small fraction of pupils attend these schools (Ameen & Gorman, 2009). Although statistics (Figure 1.1) argue that Pakistan is one of those countries where more children are attending private schools than public schools, this is reversed in rural areas (Lynd, 2007). Shaheen (2010) conducted her PhD study to investigate the factors of creativity in Pakistani primary school children. The study found that policy documents mention the introduction of creativity in schools; however the designed textbooks and teaching practices are not more than memorization and regurgitation of information.

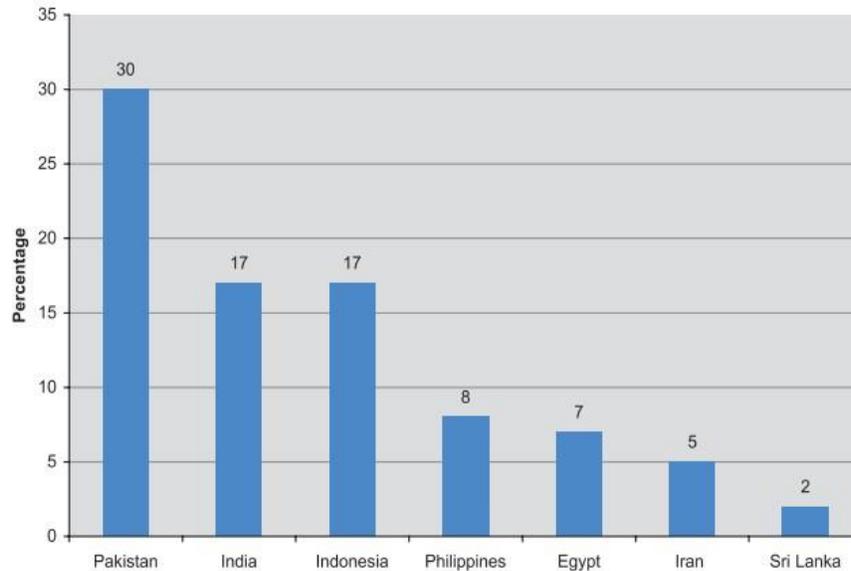


Figure 1.1: Percentage of primary Pakistani students in private education, selected countries, 2005,

Copied with permission from “The education system in Pakistan” by D. Lynd, 2007, p. 23, Retrieved from <http://unesco.org.pk/education/teachereducation/files/sa4.pdf>

In Pakistan IL awareness is very slow and the University of the Punjab, Lahore is the first to offer IL course in MLIS in 2007 (Ameen & Gorman, 2009). Bhatti (2010) claims that IL practice in university libraries is limited to library orientation and user education programs. She also reported complete dearth of IL literature on Pakistan. Informal IL practices are more common in the country, specifically in private institutions (Batool & Mahmood, 2012). The studies conducted at higher education level demanded integrated IL curriculum at all grade levels and IL national framework (Ameen & Gorman, 2009; Bhatij, 2009; Batool & Mahmood, 2012). Surveys have confirmed that in the perception of teachers, their students are IL literate and possess such skills (Kousar, 2010; Batool & Mahmood, 2012). So far, there has been little evidence about IL practice (program, standard, framework etc.) in educational institutions in Pakistan.

A review of the literature makes apparent a gap to know about any formal or informal IL practices in the country. Planning is needed to run IL programs; individual initiatives are not enough (Whitehead & Quinlan, 2002). The intent of this research is to explore information literacy practices in selected primary schools of Lahore, Pakistan through case study research. The study will highlight the local IL practices and will attempt to present holistic picture of the context through qualitative analysis. The exploratory nature of the study will allow analysis of different IL aspects in context. The study findings will help to determine

major factors influencing IL and may guide some IL understanding at national level. The reason to select primary schools are the statistics reported by Lynd in 2007; he claimed that the Pakistani education system specifically focuses on primary schools, however still universal primary enrolment is yet to be achieved. He further stated that Pakistan's NER (Net Enrolment Rates) at primary level is 62%, which means 62% of 5-9 years were attending school in 2005/2006 (Figure 1.2). "The NER is a ratio of the number of students at a level of education who are of the official age for that level to the comparably aged population" (Lynd, 2007, p.15). In figure (1.2) the first column indicates net enrolment rates (NER) at primary, middle, secondary and higher education levels in Pakistan. The other columns show NER in different provinces and capital city (ICT) of Pakistan. One can observe that in capital city (ICT) the NER at different educational levels is almost same as compared to other provinces of Pakistan. However, at primary level the GER (Gross Enrolment Rates) is 79% which indicates that most students are overage and begin school when they are above 5 years. The official primary entrance age is 5 years.

The entrance in the basic education system in Pakistan at primary level is higher than other levels. This level should be observed through IL lens, as literature has reported some research on higher education but this primary level has not been explored. The researcher's own study (Batool & Khalid, 2012) about grade 3 students seeking teachers' perceptions about IL skills covered one aspect. A recent report of the Ministry of Education claimed that Government of Pakistan is intending to improve primary level education in the country. Universal primary education is one of the major projects of the National Commission for Human Development (NCHD), Pakistan which aims to achieve 100% enrolment in primary education and to reduce dropout rate from 50% to 20% (Ministry of education, 2011/12).

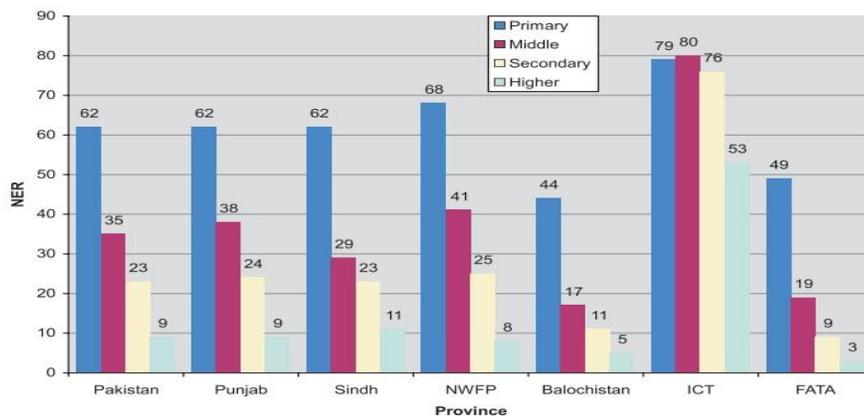


Figure 1.2: Net enrolment rates, by level of education and province, 2006

Copied with permission from "The education system in Pakistan" by D. Lynd, 2007, p. 16, Retrieved from <http://unesco.org.pk/education/teachereducation/files/sa4.pdf>

## **1.2 Purpose of the study**

The review of literature has made it clear that there is a gap in IL research in school sector in Pakistan. Therefore, the aim of the present study is to explore IL practices in primary schools of Lahore (city), Pakistan. This study will explore the overall situation of IL in primary schools through different lenses (teachers, school children and librarians) and with a variety of research tools. Based on the findings, an information literacy implementation model will be developed which will be a stimulator for future research and will highlight important factors for policy makers, practitioners and professionals. This qualitative study will present a holistic picture of IL in selected primary schools which will provide direction to the future researchers working in the same area.

## **1.3 Research objectives**

The present study has the following seven research objectives:

1. To explore IL classroom practices in the selected primary schools of Lahore, Pakistan
2. To identify teachers' teaching methodology in terms of IL instruction
3. To highlight the roles of library and librarian in terms of IL instruction
4. To analyze the students' information behaviour and IL skills
5. To gain insight into key aspects of IL relevant to the selected cases
6. To identify the problems in the implementation of IL instruction program in the selected schools
7. To propose an IL model based on findings

## **1.4 Research Questions**

The following research questions will help in achieving these research objectives:

- What are the IL practices in primary schools?
- How are teachers applying IL in classrooms?
- To what extent are children able to apply what they have learnt in the classroom?
- What are the possible barriers and what is needed to improve IL teaching programs in primary schools in Pakistan?

## **1.5 Personal Motivation**

I will now write about my personal motivation for choosing this topic. Firstly, when I taught this subject (Information Literacy) at masters' level (as an Assistant Professor at the University of the Punjab), it came out to be more interesting than other subjects. I felt the urge to work in local context since the western

literature reported much advancement in this field. I was unable to share IL efforts, practice and theoretical frameworks in local context with my students or it was not reported in the literature. Local studies reported IL problems and but also its importance to the country.

Secondly, I am a mother of five year old and seven year old children which inclined me to work on how they develop their IL skills in schools. Their homework assignments, holiday homework and daily school work motivated me to know how primary school children are developing IL skills. In 2012, I investigated primary school teachers' perceptions about their students' IL skills (Batool & Khalid, 2012). A conflict between my personal experience and study findings drive me to seek a holistic picture of IL practice in primary schools. This motivation coincides when I found high figures (Lynd, 2007) of students' entrance at primary level in Pakistan.

## **1.6 Thesis Structure**

This thesis is comprised of ten chapters.

In chapter one, the topic of the thesis and its background were introduced. The researcher also explained the importance and rationale of the overall study. The research aims and questions are outlined. The research context is set and significance of the study is described.

The chapter two reviews the related literature in order to highlight the main developments in the field. The literature also groups studies and models into research based and non-research based. The studies are mainly focused on information literacy theoretical background and children's information behavior, information seeking, literacy and cognitive development.

The methodology and research design are presented in chapter three. The philosophical positioning of research methodology and criteria of selection of research methods are also explained. The case study method, selection of cases, purpose and process are discussed to show the logical links of research design. The chapter continues by discussing data collection tools and data analysis techniques.

In chapter four the case's background is presented for the understanding of the context. To understand the present situation of information literacy (IL) in schools, it is important to discuss the context of Pakistani primary schools' education system, statistics and facilities (for example libraries) through the lens of literature. In addition, the Pakistani curriculum and teacher guides are analyzed to see provisions of IL at primary education level. This analysis of policy documents provides additional evidence and another lens to see the situation.

The main results are discussed in chapter 5, 6 and 7. The first two objectives of the study are addressed in chapter 5. The themes related to teachers and teaching practice, as they emerged from the data, are discussed in several sections. The chapter six presents findings related to school libraries and librarians. One of the main themes that emerged, “school libraries”, and its sub categories, are outlined in several sections of this chapter. In chapter seven, the results of focus groups and task based activities are presented. The main theme which emerged, “information behaviour”, and its sub categories, are discussed here.

Chapter eight discusses individual distinctive findings of all selected six cases of schools. The results here present a holistic picture of each selected case.

The previous results chapters present findings of individual cases in relation to themes. Chapter nine presents cross case analysis. The discussion highlights the main connections amongst the six cases to produce new knowledge. In this chapter, the findings are brought together through discussion. In order to see the findings in more detail, this chapter concludes by presenting situational analysis and mapping techniques. Finally, based on findings, an IL implementation model is developed and presented in this chapter.

Based on the findings, the study’s recommendations for research and future research are discussed in chapter ten. This chapter also highlights how the research questions have been addressed.

Finally, the chapter reports the study contributions and limitations.

## **1.7 My Research Journey**

This section will reflect back and present a summary of researcher’s research journey. In this section, I will talk briefly about my PhD journey by reflecting on different stages of research process.

Overall, the journey was challenging, interesting and full of learning. I am accepting that due to my teaching job and family responsibilities, the PhD study has suffered and not prioritized, when I was in Pakistan. The PhD project is a full time job ideally, however, the researcher managed to complete in three years. The time that I spent in Sheffield was very productive.

It was my first international visit in any country and I reached UK for PhD. After facing visa problems of my family, I had to travel alone in the first years of PhD; these problems made me sad and lonely. I thought that if getting visa of this country is hard, how it would be difficult to live and study there. Then my family encouraged me that you are going only for four months, as I am a joint location PhD student.

In this program, student has to spend 12 months in UK and rest of the time in their own country. So it was decided between me and supervisors that I would come UK every year within three years of PhD for four months.

The first accommodation in Sheffield was a horrible experience, I ever had in my life. I got University accommodation on 3<sup>rd</sup> floor of a four story building. I was already fearful and confused as it was first time leaving family and living miles away from my country in a different culture. On my way to accommodation, I asked one student about that building, she said “ohhh that’s a building where no body used to live”. This comment decreased the remaining motivation of this PhD student. There was no student living on my floor and other floors (4<sup>th</sup> and 2<sup>nd</sup> floor). Only few rooms were occupied by students at the ground floor. The building lights were attached with sensors and I had experience of a haunted building while moving inside kitchen. Since evening when it was dark outside, I stayed in my room and spent whole time eating snacks and biscuits. After two weeks, I got a sigh of relief when accommodation staff realized my problems and shifted me to another building in which all flats were occupied by couples. I came from a culture where we have support of helpers in domestic and office work, however, UK’s different culture was difficult and challenging. However, I took a month to adjust and go through with my initial research work. My supervisor was always there to help and guide me at every stage.

My previous research (Batoool & Mahmood, 2012) is the basic cause of conducting this research and as well as my personal interest in primary education and information literacy. The process of getting ethical approval for the present study was also prolonged. In Pakistan, due to lack of research culture in schools, ethics approval considerations are different from UK. In Pakistan, we are still in the process of setting research norms and culture. The researcher discussed this issue with school staff in Pakistan, they said it would be very difficult to get permission from parents as majority of them are uneducated. Also the staff denied, doing this activity on behalf of researcher as it is time consuming. They suggested to me that as you are intended to involve children in academic activities, teachers can sign permission letters. Finally, after discussing with supervisors and writing ethical application again, the committee convinced to give ethical approval for the present study.

Next challenging stage was confirmation review, when I had to present my initial research work in front of ISchool research community. It was challenging to answer and satisfy other views but at the same time a learning experience for me. There was viva following the presentation, facing research experts was

challenging and their insights about my research were thought provoking. I got fruitful directions to further conduct my study.

Another provocative stage was collecting data from schools. It was hard to get permission, therefore researcher had to find out personal references to access these research sites. However, the researcher managed to get permission of collecting data from the six public and private schools of Lahore city. It was attempted to avoid limitations found in one case into the following case. For example, some explanatory interview questions were added after first case study. The schools in cases one and six, fully cooperated with researcher and it was tried to collect maximum relevant data in limited time.

Considering doing something that could represent the holistic picture of information literacy practices in primary schools, I made some changes at the time of selecting school cases. The researcher was suggested by the staff development directorate, Punjab government, Pakistan that instead of selecting one private and one public school, select schools based on economic geographic locations of the city. The department mentioned that different findings will emerge, if you select schools from low economic and high economic geographic areas. Based on the data provided by directorate, the researcher approached three public and two private primary schools.

It was challenging to collect data from grade one and two children. The researcher talked with them in a very friendly manner and presented them some chocolates. The class teachers suggested researcher to do not give chocolates as children could be allergic to some foods. In the following case study the researcher decided to give stationary (pencils, erasers etc.) items to motivate them. The researcher also had to keep children on track during focus groups as the participant children were interested in talking personal stories of school, friends, relatives and homes.

While collecting data, the researcher had to face the problems of conducting interviews and focus groups at proper quiet places. In classrooms, the non-participant children were studying and teachers sent the participant children outside for focus groups. The researcher conducted interviews/focus groups at different noisy places in schools (for example porch, corridor and a dark partitioned computer room). There was much disturbance and background traffic noise impacted on sound recordings. It was also challenging to stop other people talking with the participants during interviews and focus groups. The researcher was also could not get permission to visit classrooms and libraries, except in cases one and six. In case study two, on the decided day of collecting data, the school staff did not allow me to conduct teachers' interviews. It was not possible for the researcher to change the research site due to the time

constraints and limited access. . The researcher already conducted focus groups and task based activities with the school children and was waiting for teachers' interviews but the school staff told to the researcher that it is against school policy. The researcher also found herself in difficulty and conflict while making research decisions. Specially, at the stage of data analysis, the researcher decided to apply situational analysis on the themes drew from thematic analysis for further exploration of the data. This type of mapping helped researcher to identify main elements and their relationships in the implementation process of information literacy in primary schools (Figure 9.13, see chapter 9). This decision was guided by both supervisors, specifically, Sheila who suggested possible options to further analyse the data.

During data collection, researcher explored many serendipitous issues (for example less motivated teaching attitude, lack of instructional material, dual role of librarians, restricted culture at schools and homes, no role of public libraries) that impact on the implementation and practice of information literacy. The researcher desires to highlight the reasons of these issues in detail. However, the attainment of this process could change the direction of the study. The researcher learnt many things from this study: applying qualitative approach, experience of being a qualitative researcher, how to achieve difficult things, patience, dealing with participant children and the analysis and interpretation of documents and pictures.

Another great opportunity that I explored during my journey was presenting my research work at international research platforms (conferences). It becomes possible due to the guidance and support of my supervisor, Sheila. I learnt that how to get accepted your paper for a conference and how to win travel grant for this purpose. Every time, I presented my work in conferences, I gained more and more confidence on what I have done. I also got a chance to develop social networking with those professionals who are working in my area of interest. Sheila is not only my supervisor but she is my inspiration. She has a very kind heart and on the other hand gives me tough standards to meet. She helped me exploring myself as a researcher.

Lastly, in this research journey, I met with many individuals/friends to whom I learnt many things. Specifically, my classfellow, Kondwani Wella, now Dr. Wella, we started this research journey together. We discussed and learnt new research concepts and solved issues together. I could not say about myself that how much I was helpful, but he was very helpful to solve conceptual as well as formatting issues. I wish him a successful life ahead.

## **Chapter 2 : Literature Review**

The purpose of this chapter is to present the overall view of IL in school sector, situation in developing countries and finally the importance of literature at different stages of this study.

In order to understand the research background, a review of available studies was conducted. This chapter will address the four keys areas which will help to highlight the study context. The chapter will start by discussing IL as a concept, and how this concept has been defined and refined over times.

The most influential IL models and frameworks with reference to this study, focusing on schools or primary education, are then discussed. Thirdly, the key concepts used in this study: information practice and information behaviour are discussed that how influential authors defined these concepts over times. With relevance to the study, an important section discusses school children's information seeking behaviour, its sub-section review studies on cognitive development which is closely related to information seeking process.

It was also relevant to review the IL literature produced in Pakistan to see the background of the situation. To review the broader context, IL initiatives taken in developing countries are discussed in next section. Finally, it is highlighted that how literature contributed in developing the present study's research questions.

The two main chapters which review the literature are Chapter 2 and Chapter 4. Since the scope of the two chapters differs, the strategies for acquiring relevant literature also differed. Chapter 2 presents key information literacy models, and a review of literature relevant to IL in primary schools (as reflected in the main section of this chapter). The Chapter 4 will present the overview of the Pakistani primary schools', educational system, national statistics, facilities, teachers and curriculum analysis.

### **2.1 Literature review strategies**

While searching literature, specific keywords (for example: information literacy schools; information literacy practice; school libraries; primary schools; assessment in primary schools) were used and due to lack of local literature broader keywords (for example: user education, role of school libraries; Pakistani primary schools) were used. It was considered important to put the focus on studies conducted in primary schools in order to ensure relevance to the present study. This will be followed by a discussion showing how the literature contributed in understanding key elements (information behaviour, information practice and IL practice), secondly, how literature review contributed in developing research questions

and identifying key participants for the study. The literature also contributed in developing research methodology which is discussed in chapter 3.

Important sources were University-provided databases (mainly Emerald, ProQuest, ScienceDirect, EBSCO, Jstore, Taylor & Francis) and Emerald e-book series to get research articles and chapters. Google Scholar was also used to access some freely available research data. Online theses available through Whiterose etheses and Proquest dissertations were reviewed to have an understanding of previous studies. Different experts' important writings were consulted on the advice of the supervisor.

A specific strategy was used to acquire information for Chapter 4. This chapter aims to present a detailed contextual background (based on literature) of selected cases of schools for the present study. The Pakistani education system, teachers teaching methods, use of instructional material (which this chapter highlighted that are important elements in the development of IL), situation of school libraries and public libraries are discussed in detail. The available curriculum documents and teachers guides (manuals) are also reviewed in chapter 4 (which considered important element of IL in this chapter) and the presented analysis shows provision of IL practice in primary school curriculum and teachers' guides.

To meet these goals, the literature was searched and obtained from multiple information sources. The University of Sheffield and the University of the Punjab central and departmental libraries were consulted in order to get books, reports and theses. A variety of reliable online information sources and reports were used to reveal the education situation of Pakistan. To get the latest and reliable statistics of primary schools, government education department's annual reports and surveys were retrieved from websites. The websites of schools, government institutes/organizations and relevant blogs were browsed to get statistics, IL frameworks and new developments in the relevant field. The figures used in this study have been copied or reproduced with permission (Appendix 8).

Although the main search activity took place in the early stages of the project, more literature was sought as the study progressed and new areas emerged. Some of the sections, for example teachers' career development cycle and youngsters' information seeking, were added in relevance to the present study's findings. During teachers' interviews and children's focus groups, participants talked about their teaching development cycle and information seeking behaviour. Finally, the researcher kept up with new developments, throughout the project, by scanning journals, attending conferences, receiving alerts on new journal contents, discussion lists etc. and following up on suggestions from colleagues and supervisors.

## 2.2 IL Definitions & Terminologies

Information literacy has become a topic of discussion among librarians and informational professionals since the 1970s (Edzan & Saad, 2005). Even more it has been adopted by International organizations as one of their key objectives. UNESCO (United Nations Educational, Scientific & Cultural Organization) states that it:

Aims to foster information and media literate societies by encouraging the development of national information and media policies, including in education (2010, para. 3).

In 2001 IFLA (International Federation of Library Associations) officially changed its user education section name to the information literacy section (Edzan & Saad, 2005). Johnston & Webber (2006) have even asserted that IL is a discipline. The international bodies also recognized school libraries as key sites to implement and develop information and lifelong learning skills. IFLA/UNESCO also states its school library manifesto as:

The school library provides information and ideas that are fundamental to functioning successfully in today's information and knowledge-based society. The school library equips students with lifelong learning skills and develops the imagination, enabling them to live as responsible citizens (International Federation of Library Association [IFLA], 2013, p.1).

The term was first used by Paul Zurkowski in 1974. Zurkowski identified information literate people as "people trained in the application of information resources to their work" (p.6).

The American Library Association (ALA) in 1989 adopted and popularized the term and defined it as a set of abilities (Owusu-Ansah, 2003). The ALA Presidential committee on information literacy defined information literate people in 1989 as:

Those who have learned how to learn. They know how to learn because they know how knowledge is organized, how to find information and how to use information in such a way that others can learn from them. They are people prepared for lifelong learning, because they can always find the information needed for any task or decision at hand (Association of College and Research Libraries [ACRL], 2013, para. 3).

Also in North America, Doyle (1992) conducted a Delphi study to find a consensus on the definition of information literacy. The resulting definition supported the skills based approach to information literacy for example "the ability to access, evaluate, and use information from a variety of sources" (p. 2). In the

United Kingdom (UK), Chartered Institute of Library & Information Professionals (CILIP) definition of IL also supported a skill based approach “Information literacy is knowing when and why you need information, where to find it, and how to evaluate, use and communicate it in an ethical manner” (Chartered Institute of Library & Information Professionals [CILIP], 2013). Bruce (1997) approached information literacy as a reasoning-thinking process. Bruce stated that:

The ability to access, evaluate, organize and use information in order to learn, problem-solve, make decisions - in formal and informal learning contexts, at work, at home and in educational settings (1997, para. 3).

Some later IL definitions focused on individual experiences and put the person in the center of the process. Information literacy is not a linear process; a person can develop several aspects of IL based on their experience and aptitude (Eisenberg, 2011; SCOUNL 2011). Bruce (1997) identified that information literacy can be experienced in multiple ways and different people experience IL differently. Martin (2013) defined IL as “a fluid concept, shaped by our experiences, and changes in our information rich society” (p. 3.). Similar broader approach taken by another definition which is:

Information literacy is the adoption of appropriate information behaviour to obtain, through whatever channel or medium, information well fitted to information needs, together with a critical awareness of the importance of wise and ethical use of information in society (Johnston & Webber, 2003, p.336).

Definitions of information literacy have much in common, but also varied for example in the emphasis placed on different elements and in their overall approach. For example:

- Focused on the process (For example Kuhlthau, 1991; UNESCO, 2008)
- Focused on individual experiences (For Example Bruce, 1997; Society of college, national and university libraries, 2011; Martin, 2013)
- Focus on desirable behaviours (For example ALA, 1989)
- Focused on information behaviours (For example Johnston & Webber, 2003)
- Focused on skills (For example Doyle, 1992; CILIP, 2013)

IL means different to different communities, organizations and individuals. Information literacy definition becomes complex overtime from simply searching reference sources to include digital, visual, text and

technology literacies (American Association of School, 2007). For this study, the preference was to work with a school focused definition of information literacy or derived within school context. The pedagogical transformation in schools from memorizing facts to think, evaluate and create new knowledge emerge the need to learn IL. However, the school sector organizations seem to adopt influential definitions from other organizations for example ALA, IFLA, CILIP. Therefore, this section is packed with other sectors IL definitions. Some of the definitions derived within school context are discussed below.

The American Association of School Libraries and Association of Educational Communications and Technologies state that “information literacy is - the ability to find and use information – the keystone of lifelong learning”, “the information literate student accesses information efficiently and effectively, evaluates information critically and competently, and uses information accurately and creatively” (Byerly & Brodie, 1999, pp. 54-82).

Abilock (2004) identified IL as transformational and states that “Information literacy is a transformational process in which the learner needs to find, understand, evaluate, and use information in various forms to create for personal, social, or global purposes.”(p.10). She considers IL should be taught in such a way that students may able to transfer it in other settings too. According to her information literacy is a process which enables a student to transfer skills and they should consider it a lifetime habit. Herring with reference to schools says that IL comprises “the skills which pupils [students] use to identify the purpose of, locate, process and communicate information concepts and ideas and then reflect upon the effective application of these skills” (2006, para. 9).

For school settings the process of IL recognized as skill based or a set of abilities (AASL; Abilock, 2004; Herring, 2006). The students should learn to know the need of information, locate, evaluate and use of information at school level. The definitions listed above have more similarities with the change of wordings (skill or ability or set of abilities; behaviours or experience or needs) . Although for the present study the most working definition would be of James Herring (2006) definition of information literacy. Herring’s definition not only established this process as to learn information skills but he identified how those students should also be able to reflect on these skills effectively. So Herring’s definition confirmed that IL process is iterative rather than linear. The present study also aims to find out that to what extend the students are able to reflect what they have learnt in the classroom regarding IL.

Many related concepts and alternate terms have been reported in literature for information literacy, but it is clear that IL is current and widely acceptable English language term for this conceptual area (Pinto, Cordon & Gomez Diaz, 2010). Stordy (2015) reviewed relevant documents to digital technology and

literacy and also found that information and digital literacies are mostly cited literacies. Bawden (2001) called library, media and computer literacies as skill based literacies but concluded that due to complex information environments, this classification cannot be restricted. He further argued that use of different terminologies is not important, the understanding, meaning and context of literacy should be emphasized. As an example Christine Bruce (2000) briefed on the chaos of IL terminologies as: combination of information and technological skills, as mental models, as a process, attitudes, as ability to learn and as complex ways of experiencing information use.

Nazari and Webber (2012) conducted an analytical review of literature and found that generic models of IL are not appropriate to address the increasing, complex and changing nature of information specifically in e-environments. They proposed contextual IL approach and suggested e-learner to conceptualize IL as per their information needs and style. The other terminologies used for IL and technology literacy include:

Information fluency – Capability or mastering of information competencies, Information competencies – Compound skills and goals of information literacy, Information skills – Focuses on information abilities, Development of information skills – Process of facilitating information skills, Knowledge literacy or knowledge management, user education-global approach to teach information access to users, bibliographic instruction- user training on information search and retrieval, library literacy, computer literacy, media literacy, digital literacy, technological literacy and critical literacy (Lau, 2006, p.8; Bawden, 2001; Stordy, 2015).

### **2.3 Theoretical frameworks of IL**

Information literacy in school education is rooted back in April 1983 when a report by National Commission on Excellence in Education alarmed the United States (US) about lack of rigorous education in American schools. The report did not mention the role of library or information sources in school education, although the NCLIS (National Commission on Libraries & Information Science) promoted the importance of libraries in improving students' information skills. The state and regional level efforts started to incorporate IL skills in school curriculum and later on spread around the world (Spitzer, Eisenberg & Lowe, 1998).

Silverman (2006) defined a model as “an overall framework looking at reality” (p.13); the term is more specifically used to describe a framework that emerges from research findings and mapping those findings. However, several authors use this terminology for the documentation that provides guidance and understanding on information literacy (for frameworks that are not based on research). It was a very hard

job to review all IL models/frameworks worldwide. Most of the models claimed by their authors are not based on research work, but rather on professional opinions (such as of librarians and information professionals). To frame context for the study, it was meaningful to review models and frameworks focusing on schools and specifically primary education. However, a brief overview of research based models, internationally influential models and national frameworks focusing schools will be discussed in this chapter.

### 2.3.1 Research based IL models

Kuhlthau's (1991) pioneering model of the information search process (ISP) is based on user's perspective and an exploratory work. ISP is a process of constructing a search based on individual's experience, thoughts and feelings. This model has strong theoretical foundations and has been tested in a series of case and longitudinal studies. ISP stages as discovered by Kuhlthau, based on participant data, are: initiation, selection, exploration, formulation, collection and presentation. In *initiation* a user recognizes his or her information need, in *selection*, he/she carries out a general search, *exploration* focuses on investigating more about the general topic and *formulation* considers developing a specific focus. In the *collection* stage, the user gathers information again but this time based on focal points. The final stage in ISP model is to *present* the information. The model is based on the user's perspective, and participants did not practice evaluating information before its use. One important aspect of the model is that it also captures the affective (emotional) aspects of the search process.

Bruce (1997) developed a relational model based on Phenomenographic doctoral research, the seven faces of information literacy. Bruce identified that information literacy is the sum of different ways it is experienced and asserts that the role of IL education is to change or broaden that experience. The seven conceptions of IL are information technology (IT) for retrieval and communication, information sources, information process, information control, knowledge construction, knowledge extension and wisdom. To be information literate according to this model, a student will use IT for IR (Information Retrieval) and communication, and then find information independently or via an intermediary, then he or she will use information processes, control information, build personal knowledge base in a new area of interest, work with knowledge and personal perspectives to gain new insights and finally use information wisely. Unlike other approaches of process based, skills based and learning based models, this model adopted a relational approach (Bruce, 1997). She derived relational IL model as people experience information in different ways, however she examined interdependency between different groups and individuals in their IL experiences.

### 2.3.2 Internationally influential IL standards/models

There are a number of IL standards/models and practices in different sectors; however some of these have been particularly influential. Three particularly influential standards are discussed in this section..

IFLA IL standards (International Federation of Library Association [IFLA], 2012) were developed in consultation with an international group of practitioners, based on international practice, and have been translated into 11 languages (IFLA Information Literacy Section, 2015). They are grouped under the three basic IL components:

- A. Access: User access information effectively and efficiently
- B. Evaluation: User evaluates information critically and competently
- C. Use: Use applies/uses information accurately and creatively

IFLA standards are process based and designed for the professionals who want to start from scratch. IFLA guidelines can be adapted by librarians according to their local needs. As noted above, these guidelines are available in various languages, and are therefore easy to adapt and implement. The guidelines are specifically designed to run with educational programs (IFLA, 2012).

One of the most essential documents on information literacy is ACRL's (Association for College and Research Librarians) competency standards for higher education adopted in 2000. These standards are widely practiced in the world and most cited work in IL literature. These standards are also translated in multiple languages to be implemented in most parts of the world (IFLA, 2013; ACRL, 2015). However, the translations are contributed by volunteers and are not reviewed by ACRL. The document got credit of IL implementation in many higher education institutions. These standards are further modified for specific disciplines for example journalism students, anthropology & sociology students and science & technology students etc. (IFLA, 2013; ACRL, 2015).

The UK IL model for higher education was developed by the Society for College, National and University Libraries (SCONUL) in 1999 and then updated as a core model in 2011. As well as being influential in the UK this model has been identified as being significant internationally (Martin, 2013) This model focuses on IL skills, competences, behaviors and attitudes (SCONUL, 2011). Both editions identify seven "pillars" of IL, in the slightly reworded 2<sup>nd</sup> edition (SCONUL, 2011) these are: identify, scope, plan, gather, evaluate, manage and present. This is a non-linear model, emphasised by the presentation of the seven pillars within a circle, in which the information literate person may move between different pillars during the process of solving his or her information problem (SCONUL, 2011). A series of lenses is also offered in

addition to the core model to be applicable in specific situations. These include research lens (for example aimed at the IL of researchers), an open content lens and digital literacy lens, and SCONUL has invited professionals to develop additional lenses (SCONUL, 2011; Martin, 2013).

### **2.3.3 IL National Frameworks**

At national level many frameworks have been developed in different countries to incorporate IL into national curricula for lifelong learning. The Welsh IL framework is a result of discussions and conference of librarians and stakeholders from other sectors. The SCONUL model was adapted to provide core structure to the framework. In order to provide a synchronized approach all learning levels, from primary education to lifelong learning were considered (*Welsh information literacy*, 2011). In this approach, two key educational frameworks have been used such as Skills curriculum in Wales for 3-19 years old and Credit and qualification framework (CQFW) for 14+ years. The Skills curriculum is focused on primary, secondary and FE sectors, not subject based but integrated into all curriculum areas. The Skills curriculum is focused on developing thinking, communication, ICT, interpret and present findings skills; however it does not cover ethical use and referencing sources. The CQFW supports learning and training in Wales including classrooms, work-based, full-time, part-time, distance learning and online (*Welsh information literacy*, 2011). This document covers all sectors comprehensively indicating with different colour brands (Figure 2.1). The Welsh Information Literacy framework (Entry level 1) empowers primary school children to be independent and develop lifelong learning skills. The integrated skills based curriculum enables students in identifying the need of information, awareness of variety of information formats, use of keywords in locating information, evaluating information and use of information in making decisions.

NATIONAL LITERACY AND NUMERACY FRAMEWORK	WELSH INFORMATION LITERACY FRAMEWORK
LITERACY – READING FOR INFORMATION KEY STAGE 3 Locating, selecting and using information <b>Reading strategies</b>	
Year 7 Use internet searches carefully, deciding which sources to read and believe	Entry level 1 <b>Identify</b> <i>define the information needed, begin to understand that some things are fact</i> <b>Scope</b> <i>become aware that information exists in a variety of forms</i> <b>Plan</b> <i>Identify the key words to locate in written sources</i> <b>Evaluate</b> <i>check that the information found is what is needed</i> <b>Manage</b> <i>be able to make a decision using information obtained</i>

Figure 2.1: Welsh Information Literacy Framework (Entry Level 1)

Welsh Libraries, Information literacy in schools Retrieved from [http://welshlibraries.org/uploads/media/Mapping\\_National\\_Literacy\\_and\\_Numeracy\\_Framework\\_to\\_WILP\\_01.pdf](http://welshlibraries.org/uploads/media/Mapping_National_Literacy_and_Numeracy_Framework_to_WILP_01.pdf)

The SCONUL IL model is more focused on higher education; however the Scottish Information Literacy Framework' focus is now expanded to primary education and lifelong learning. The framework includes advocacy for IL in UK and abroad, researching and promoting IL and most importantly developing framework by linking primary, secondary and tertiary education with lifelong learning (Irving & Crawford, 2010). The framework focused on developing thinking, locating, using, understanding, analysing and evaluating information skills at junior (primary) educational level. After the implementation of this framework, many schools in Scotland, specifically, in St Margaret's School, Edinburgh and Lasswade Primary School, where children are practicing listening, using information and critical literacy.

Outside the UK, the Education and Manpower Bureau of Hong Kong set up a task group to propose IL framework for students in 2004 (Siu-Cheung, James, Fong-Lok, & Siu-Cheung, 2005). A grounded theory based study analyzed eight IL representative frameworks of different regions. An initial coding of these models resulted in four categories: cognitive, meta-cognitive, affective and socio-cultural. There are more similarities in these models than differences, which can be grouped in four learning dimensions. As a result eleven core standards are formulated:

### Cognitive dimension

- An information literate person is able to determine the extent of and locate the information needed.
- An information literate person is able to apply information to problem-solving and decision making.
- An information literate person is able to analyze the collected information and construct new concepts or understandings.
- An information literate person is able to critically evaluate information and integrate new concepts with prior knowledge.

### Meta-cognitive dimension

- An information literate person is able to be aware that information processing is iterative, time consuming and demands effort.
- An information literate person is able to plan and monitor the process of inquiry.
- An information literate person is able to reflect upon and regulate the process of inquiry.

### Affective Dimension

- An information literate person is able to recognize that being an independent reader will contribute to personal enjoyment and lifelong learning.
- An information literate person is able to recognize that information processing skills and freedom of information access are pivotal to sustaining the development of a knowledge society.

### Socio-cultural dimension

- An information literate person is able to contribute positively to the learning community in knowledge building.
- An information literate person is able to understand and respect the ethical, legal, political and cultural contexts in which information is being used (pp.22-26)

This is a comprehensive framework based on learning dimensions covered all levels of basic education, particularly developed to support schools. While describing IL in classrooms, the framework argued that at lower level of education (primary) students are more dependent on teachers than higher levels. The

framework identified the great responsibility of teacher or teacher librarian to develop IL skills at primary level. Although not very well-known, this framework is interesting in identifying the meta cognitive, affective and sociocultural dimensions and it has strong positioning in IL models supporting schools. Based on grounded theory the framework has full guidelines on its implementation. An example is given in Table 2.1.

*Table 2.1: Information continuum for different stages of the information process for students at different education levels*

Information Process Stage	Primary (Teacher directed)	Secondary (Student directed)
Initiating a task	Teacher helps students develop and organize questions to guide research	Students develop research questions
Gathering information	Teacher helps students find a variety of appropriate and accessible sources of information	Students find their own variety of appropriate and accessible sources of information
Exploring information	Teacher helps students to distinguish between fact and opinion	Students distinguish between fact and opinion, and between hypothesis and generalization
Organizing information	Teacher provides a format to record simple bibliographic information	Students record information needed for bibliography, footnotes and direct quotes, according to standard form
Creating new information	Teacher helps students combine information to answer research questions	Students formulate alternative answers or recommendations to research questions
Sharing & presenting information	Students present information to a partner or small group within the class	Students present to individuals or groups within or out of the school
Assessing & evaluating information	Teacher and students reflect on the complete research process, noting areas of strength for improvement	Students reflect on the complete research process, noting specific ideas for transfer to other situations

*Note.* From “Information literacy framework for Hong Kong: Building the capacity of learning to learn in the information age”, by Siu-Cheung, James, Fong-Lok, & Siu-Cheung, 2005, p.61.

### 2.3.4 School centered IL models/standards

The American Association of School Librarians proposed IL standards in 1994 and published a position statement including information searching steps. This paper exhorted library media centers, specialists and collaboration between specialist and teachers to integrate IL into the school curriculum (Spitzer, Eisenberg & Lowe, 1998). In the school context key research based models are: Big6 and James Herring’s PLUS model all developed in 1990s (Markless & Streatfield, n.d.) and these will be described briefly.

The Big6 model of Eisenberg is very flexible and can be used in all subjects and at all grade levels (Eisenberg, 2011). These skills are focused on task definition, info seeking strategies, location & access, use of information, synthesis and evaluation. Other models of IL suggest evaluation and management before use of information. In Eisenberg’s view use of information that focused on relevance must be done before it can be synthesized and presented and one can finally judge the results. Big6 published another version called Super3 for kindergarten through year 2 using simple language for example Plan, Do and Review. Heider (2009) used Super3 model to explain IL collaborative lesson planning in early childhood and highlighted the importance of using informational texts.

James Herring claimed PLUS model to be more suitable for school use. It was developed in Scotland, UK. The model is process based and emerged from James Herring’s research work. Herring (2011) employed socio-cultural and constructivist research approach to examine socio-cultural factors in her research. The data was collected from year seven school students, teacher-librarians and teachers in Australia through diaries and interviews. The categories emerged from diaries and questionnaires were used as basis to develop interview guides. The study findings suggest the creation of a culture of transfer in relation to information literacy is needed.

PLUS is an acronym which is easy to remember and recommends that information skills break into four main parts:

*P: Purpose* identifying the purpose of an investigation or assignment

*L: Location* finding relevant information sources related to the purpose

*U: Use* Selecting and rejecting information and ideas, reading for information, notetaking and presentation

*S: Self-evaluation* How pupils evaluate their performance in applying information skills to the assignment and what they learn for the future (Plus, n.d., para. 2)

Herring, Tarter & Naylor (2002) reported the evaluation of the use of PLUS model in a secondary school in England. The year seven 112 students who used PLUS model asked to fill the questionnaire. In relation to this librarian and teacher were also interviewed. The results show that overall students benefited and PLUS model helped them in planning, organizing and reflecting on their own work.

The model of Stripling & Pitts, which was also developed and investigated within the school context, is very well cited in the literature. Stripling claimed this model was based on research findings of Pitts and others. Pitts' study (1995) investigated that students, while searching, choose broad topics and were unable to turn information into ideas and knowledge. They concluded that students are not familiar with research process and in response created ten-step process (Spitzer, Eisenberg & Lowe, 1998). The steps in the model are very helpful for those who are suffering from information overload (Veltze, 2003). The steps are: choose a broad topic 2. get an overview of the topic 3. narrow the topic 4. develop thesis/ purpose statement 5. formulate questions to guide research 6. plan for research and production 7. find, analyze and evaluate sources 8. evaluate evidence, take notes, compile bibliography 9. establish conclusions/organize information in outline 10. create and present final product. This model can be used from first grade and onwards in schools (Veltze, 2003). However, there is no evidence in literature that this model has been used as widely as the Big6 or PLUS models.

Wolf (2007) in a school context presented the concept of convergence of self-regulation and information literacy. She asserted that there is research on IL skills and behaviours, however the act of dispositions (temperament) is less explored. A self-regulated student does something specific by utilizing skills and strategies and takes personal initiatives. Wolf argued that certain tasks of self-regulation may be supported by IL skills. Convergence may help the success of both attributes. She also combined selected IL skills with curriculum standards. She presented a model and advised to add disposition element into the curriculum. Table 2.2 presents an example of Wolf's work which shows IL skills' connections with particular subjects.

Table 2.2: Selected Information literacy skills within curriculum standards

Selected Information Literacy skills	Curriculum Connections
<p>... Accesses information efficiently and effectively (Recognize that information is the</p>	<p>Social Studies:</p>
<p>basis of decision-making, formulate questions, identify sources of information, access print &amp; technology sources of information, etc.)</p>	<ul style="list-style-type: none"> <li>• Students locate, access, analyze, organize and apply information about selected public issues ...</li> </ul> <p>Science:</p> <ul style="list-style-type: none"> <li>• Students identify questions and concepts that guide scientific investigations</li> <li>• Understand that scientists conduct investigations for a wide variety of reasons</li> </ul>
<p>... Evaluates information critically and competently  (Establishes authority, determines accuracy and relevance, rejects inaccurate &amp; misleading information, crates new information to replace inaccurate or missing information, etc.)</p>	<p>English:</p> <ul style="list-style-type: none"> <li>• Students apply a wide range of strategies to comprehend interpret, evaluate, and appreciate texts ...</li> </ul> <p>Math:</p> <ul style="list-style-type: none"> <li>• Students monitor and reflect on their mathematical thinking in solving problems</li> <li>• Students apply a wide variety of strategies to solve problems and adapt the strategies to new situations</li> </ul>
<p>... Uses information accurately and creatively (Applies information in critical thinking and problem solving, Organizes information for practical application, Integrates new information into an existing body of knowledge)</p>	<p>Technology:</p> <ul style="list-style-type: none"> <li>• Students use technology for solving problems and making informed decisions</li> <li>• Students employ technology in the development of strategies for solving problems in the real world</li> </ul>

Note. From "Information literacy and self-regulation: A convergence of disciplines" by Wolf, S., 2007,

Retrieved from

[http://www.ala.org/aasl/aaslpubsandjournals/slmrb/slmrcontents/volume10/wolf\\_informationliteracy](http://www.ala.org/aasl/aaslpubsandjournals/slmrb/slmrcontents/volume10/wolf_informationliteracy)

These models can provide a strong guideline on IL instruction although there is no need to follow these models strictly to facilitate practitioners work (Martin, 2013). A user's background may change the level of IL skills, for example a health professional may have high degree of health literacy than a layperson, so the IL process should be holistic and flexible (Martin, 2013). Martin (2013) while reviewing IL models discussed that these models lack multidimensional learning (behavioural, cognitive, metacognitive, affective) guidelines. She also reported that another limitation of IL models is overemphasis on teaching specific skills.

The models discussed above are based on research and their positive use has also been evaluated in school context. However, these models more focused on process (PLUS, Stripling & Pitts models) and skill based (Big6 & Super3) approach in school settings. Though, these models lack guidelines for implementation and practice in schools. However, Wolf (2007) provide IL curriculum integration guidelines. These models have more similarities than differences. The PLUS model added one specific step (self-evaluation) so that pupils can learn how to reflect back on their own performance. Due to the information overload globally, there is a need to change conventional approaches (process or skill based) adopted by these models. The digital age school children need flexibility of mind, consideration of problem from different lenses and various ways to solve the problem (Shanton, Hay-Gibson & Shenton, 2011). The information professionals should also be familiarized with other subjects' theories (education, psychology, ICT) to provide holistic and multidimensional learning to digital age youngsters (Shanton, HayGibson & Shenton, 2011).

## **2.4 Literature Contribution in defining key concepts (information behaviour, information practice)**

As the presents study aims to approach information literacy as practice therefore, it is considered important to discuss the umbrella concepts (information behaviour, information practice), differences, and connections with information literacy practice.

While mapping the concepts of information behaviour and information practice within information seeking, Savolainen (2007) asserted that Information behaviour and information practice are the terminologies which describe the ways in which people deal with information. The concept of information behaviour developed in the mid-1960s with an additional focus on information seeking and information seeking behaviour. It gradually evolved into a broader concept (Wilson, 2010) as researchers felt the need of an umbrella term that broadly covers information needs, seeking and its use (Savolainen, 2007)

Wilson (2000) took a holistic view, developing influential information behaviour models that encompassed information searching, seeking and use, and defined it as “the totality of human behavior in relation to sources and channels, including both active and passive information seeking, and information use”. He characterized information behaviour as a “goal-directed problem solving process” (Wilson, 2000 p53) , stimulated by a specific need.

Simultaneously, the concept of information practice appeared in the literature of information seeking, challenging the concept of information behaviour (Savolainen, 2007). Savolainen (2007) stated that information behaviour and information practice are both umbrella terms, however an information practice approach is more sociological and contextual. Whilst information behaviour focuses on behaviour stimulated by specific problems (which emerge in a context), a practice approach focuses on people’s engagement with information in a specific context. Gherardi (2009) states that “Practice defines knowledge as a practical and situated activity”: it emerges within people’s practice. McKenzie (2002) did her research as a true follower of information practice concept. She studied entire range of activities present in the phenomenon in order to explore the information seeking encounters of pregnant women. She advocates the concept of information practice over information seeking and behaviour as it provides a better opportunity to investigate the social context of the account presented.

Similarly, some information literacy researchers (Lipponen, 2010; Lloyd, 2012) also advocate a practice approach to information literacy. They criticized the narrow perspective of understanding IL as an individual’s expertise or skills. The present study takes the socio-cultural and practice perspective of information literacy. The proponents of this perspective (e.g. Lloyd, 2012) claim that this perspective is more holistic and situated within context.

Lloyd (2012) presented the “people in practice” perspective of information literacy drawing from her own empirical studies and socio-cultural literature. While examining the nature of information literacy, she established information literacy as a social practice within a setting. She was of the view that information literacy, as a phenomenon, can be best explored by the analysis of the activities people undertake within the social setting, instead of approaching IL as only information skill. The “people in practice” aspect emphasises that how people do something together and the social aspects can shape the phenomenon of information literacy.

Lloyd (2010) asserted that information literacy is a practice and can be understood when people interact and participate in their specific environments. An information literacy practice landscape within an environment involved people shared ways of thinking, doing and acting.

### **2.4.1 Information modality**

Lloyd (2010) highlighted the dimensions of information literacy practice that cause its emergence. It relates to how information is understood, constructed and shared in an environment. Three discursive information modalities identified by Lloyd are epistemic, social and corporeal. The next sections summarise Lloyd's perspective on each modality, explain how each modality was addressed in this study, and in some cases given other examples from the literature.

#### **2.4.1.1 Epistemic**

This category articulates the written representation of knowing, the information that enable workers to know about profession and practice. For example, training manuals, curriculum documents or policy documents. Therefore, the present study decided to review primary school curriculum and teachers' guides provided by the government to see the provision of IL practice in classrooms.

Chen & Chen (2013) assessed the 2<sup>nd</sup> grade students' library literacy in connection with the curriculum and considered it important. They developed research instruments based on curriculum and assessed only library literacy as computer literacy was not the part of curriculum. The data was collected through documents (curriculum), observation, tests and interviews. The study conducted in Australia also emphasized the importance of reviewing curriculum and delivery methods in order to update IL strategy at La Trobe University. This study also recognized the critical role of librarian in reviewing and updating IL strategy of the university (Salisbury & Sheridan, 2011).

In another study, Manuel (2002) highlighted the importance of teaching IL innovatively argued that students remember only ten percent what they read but retain thirty percent what they see. The use of visuals in teaching information literacy at California State University enhanced their understanding and academic scores.

#### **2.4.1.2 Social modality**

According to Lloyd (2010) the second type of modality deals with tacit knowledge and forms through collective participation, experiences and reflection on action. This can be viewed as a collective identity which shaped by the individual and collective stories and experiences. Chen & Chen (2013) while assessing the information literacy skills of 2<sup>nd</sup> grade students found that teachers role is very important at this stage and students still needed teachers' guidance to pose inquiry questions.

Lipponen (2010) while taking the IL approach as situated and distributed information activity asserted that IL can be best defined through interaction and collective processes (for example between students and

teachers) instead of looking into individual's mind. Information literacy cannot be understood in isolation or as individual's expertise, it is embedded and situated in the environment where group of people interact and work together (Lipponen, 2010). The present study also found that teachers' teaching attitude is also very important in practicing information literacy in schools.

The researcher aimed to examine teachers' teaching practices as it is significantly associated with IL implementation in schools. The teacher participants of the present study belonged to different age groups, therefore it is reviewed that how teachers behave at their different career development stages.

Maskit (2011) examined primary and junior school teachers' attitude and studied their career cycle. The study discussed various models of teachers' professional development stages. The study focused on eight stages of Teacher career cycle model (Burke, et.al.,1987):

1. Pre-Service: The period of preparation for a specific professional role, studying in a college or university.
2. Induction: The first few years of employment as the teacher is socialized into the system. During this period, new teachers strive for acceptance by students, peers, and supervisors and attempt to achieve a certain level of comfort and security in dealing with everyday issues.
3. Competency Building: At this stage, teachers are striving to improve their teaching skills and abilities. They seek out new materials, methods and strategies. At this stage, teachers are often receptive to new ideas; they often regard their work as challenging and are eager to improve their skills.
4. Enthusiasm and Growth: At this stage, teachers reach a high level of competence in their work and continue to progress professionally. Teachers often love their work at this stage, seeking out new ways to enrich their teaching and enjoy a high level of job satisfaction.
5. Stability: At this stage, teachers' careers often reach a plateau. They do what is expected of them, and sometimes little more. Teachers often find little value in professional development programs, and are seldom motivated to participate in professional programs.
6. Career Frustration: This stage is characterized by frustration. Teachers often begin to wonder why they are still teaching.
7. Career Wind-Down: At this stage teachers are prepared to leave the profession. For some teachers this may be a pleasant time; for others it may be a bitter or unhappy period.
8. Career Exit: The periods after teachers leave their work (pp.11-13).

The study sample consisted of working 520 primary and junior school teachers. Four different questionnaires were administered with participants to examine their attitudes and career stages. The open ended interviews were also conducted in order to validate data collected from questionnaires from randomly selected 50 teachers. Among the attitude results, lowest means scored by the teachers who were at career frustration stage and the highest by those, who were at career building and enthusiasm and growth stage. The researcher observed low means in attitudes towards pedagogical changes of those teachers who were at career frustration and career-wind-down stages. The interview results also verified the data collected through questionnaires (Maskit, 2011).

A number of studies (Todd & Kuhlthau, 2004; Smalley, 2004; Ranaweera, 2008) also highlighted the role of libraries and librarians in developing school children information literacy skills. Studies confirmed that strong school library media programs can impact positively on students learning, literacy and reading scores (Lonsdale, 2000). The chapter 1 of this study also emphasized on the importance of school libraries and found the critical role of librarians as collaborators with teachers in classroom instruction (“School libraries”, 2008). Only few studies examined the interaction of individuals to understand information literacy. Most of the studies looked into only one aspect (librarian’s role, teachers’ conceptions, children’s IL skills assessment) of the situation to understand information literacy practice.

#### **2.4.1.3 Corporeal modality**

This type of modality involves information skills developed through practice for example, capabilities, know, how. The body of the worker on the site acts as embodied knowledge which gained through practice. The physical body is itself resourceful and can demonstrate know how and skills. Lloyd (2010) advised information literacy researchers to recognize the practice architecture of research sites or workplaces. To cover this aspect, for present study classroom practice worksheets were collected and observation of classrooms and library was made.

### **2.5 School Children’ Information seeking behaviour**

The IL frameworks/models within school context have already discussed in section 2.3, however, it is important here to review those studies which focused on children’s information seeking behaviour and information literacy skills. As Lloyd (2010) also asserted corporeal modality involves development of information skills. Also the present study findings indicated children’s information behaviour and their information literacy skills. The literature covered school sector, mostly focused on examining information seeking behaviours and assessing IL skills of school children.

A large number of studies (Chang, et. al. 2012; Jones, 2007; Bowler, Large, & Gill, 2001) assessed IL skills of students to evaluate the IL practice within educational institutions. For example, in primary schools Bowler, Large, & Gill (2001) examined grade six students' IL skills on web. The study identified that learning through web depends on their teachers' understanding of learning outcomes and instructional strategies. Chang, et. al. (2012) stressed to measure students' IL skills to see their academic progress. The researchers' developed a comprehensive instrument to look into 298 secondary school students' IL skills. The findings indicated that students lack in high order IL skills (such as information use, synthesis and evaluation).

While examining information seeking behaviour, the investigators (Shenton & Dixon, 2003) drew a sample of 188 pupils from six town schools in England. The data was collected through focus groups and individual interviews. The participants were asked to think about the last time they need help at school, home or anywhere else. From the data collected, the inquirers derived macrocosmic model that indicates that "information seeking is a convergent process involving the making of choices and taking of decisions" (p.10). This model has commonalities with previous models; however, taking a convergent and iterative stance in information seeking made it different from other models. It is more closely related with real life situations and not only focused in academic context. The authors analysed participants' information needs and the paths they took in information seeking process. Later in the article, they fitted the model to different sources (for example book, CD-ROM, internet) for the general understanding of the readers. According to the model, if following an unbroken sequential path, the key stages for any person with an information need will be:

1. "adoption of one or more information-seeking directions;
2. choice of a specific source or sources within the category or categories specified in the direction or directions nominated;
3. efforts to locate the appropriate part or parts of the source or sources;
4. attempts to access the desired information" (p.10)

Some people do not always take the linear path, the model called them short-circuits, in which they can skip one of the above described stages. The model is a comprehensive and holistic contribution in the field of youngsters' information seeking.

The literature has identified that school children prefer people oriented information sources, as it is illustrated by the following two examples. Shenton & Dixon (2003a) classified the people consulted by study participants into three categories: people of convenience (parents, siblings), those in a comparable situation (friends who faced similar situation), experts (teachers, who believed to possess special knowledge). This study also identified a range of school children's information needs: spontaneous life situation, advice, personal information, affective support (health, illness, bullying), empathetic understanding (to tackle emotional issues), support for skill development, school related subject information, preparatory and self-development. The study concluded that youngsters' preferred sources are people because they are readily accessible.

Madden, Ford & Miller (2007) aimed to examine children's information seeking habits. The sample consisted of school children aged 11-16 years. Before data collection, the participants attended a series of workshops about information seeking and discussed in groups. The data was collected through research exercises; the participants were provided with a piece of paper listed with commonly used information sources. The teacher asked the children to discuss sources in groups and then rank from 1 (most useful) to 10 (least useful). The students were also asked to report the information sources they used while doing homework assignments throughout their academic year. The tutors were provided computers to mark the used information sources. The participants considered internet as the most useful source after books. However, the students mostly used people based sources for completing their school assignments. The books and computers were ranked second and third by participants as most used.

### **2.5.1 Information behaviour (IB) and cognitive development**

The present study identified that there is a close relationship between children's cognitive development and their information behaviours. The cognitive development researchers have somewhat neglected the area of IB. However, IB researchers have conducted a few studies and found age difference impacts on information behaviour. A number of different research approaches have been taken, for example applying cognitive theories (Piaget, Vygotsky etc.) to IB domain and describing age trends in the cognition components (Byrnes & Bernacki, 2013). This section will mainly discuss the theoretical work and connections in the field of IB and cognition. As the present study's findings relate to school children's (5-7 years) information behaviour in connection with their cognitive development, it is important to discuss related studies.

Bjorklund (2011) used the term cognition to refer to aspects of the mind that play a central role in acquisition, modification and manipulation of knowledge. Examples are language, memory, reasoning and concepts (as cited Byrnes & Bernacki, 2013).

Cook and Cook (2005) reviewed the theoretical work of the most influential name in the field of cognitive development, Jean Piaget. From birth he was an extra ordinary child and showed great interest in this field. Piaget’s theory reflected a constructivist view, in which people see their environment on the basis of what they already know. He was of view that children who have limited interaction with environment, are exposed to less opportunities of cognitive development. According to Piaget there are four stages of cognitive development: Sensorimotor thought (Birth to 2 years), Pre-operational thought (2 to 7 years), Concrete operational thought (7-12 years) and Formal operational thought (12 years and up). These are outlines in Table 2.3.

*Table 2.3 Piaget stages of cognitive development (Cook & Cook, 2005, p.10)*

<b>Stages</b>	<b>Limitations</b>	<b>Achievements</b>
Sensorimotor thought (Birth to 2 years)	<ul style="list-style-type: none"> <li>No representational thought; infants cannot form internal symbols early in this stage.</li> <li>Object permanence is lacking early in this stage.</li> </ul>	<ul style="list-style-type: none"> <li>Representational, symbolic thought gradually emerges as the stage progresses.</li> <li>Object permanence develops as the stage progresses.</li> </ul>
Pre-operational thought (2 to 7 years)	<ul style="list-style-type: none"> <li>Intuitive logic leads to egocentrism, animism, artificialism, and an inability to use more objective forms of logic.</li> <li>Schemes are not reversible, not operational.</li> <li>Children fail conservation tasks because of centration, focus on static endpoints, and lack of reversibility.</li> </ul>	Flourishing mental representations and symbols are seen in language, art, and play.
Concrete operational thought (7-12 years)	Logic is limited to concrete, tangible materials and experiences.	<ul style="list-style-type: none"> <li>Logical thought is more objective, allows skills like class inclusion and transitivity.</li> <li>Schemes can be reversible, operational.</li> <li>Children pass conservation problems due to decentration, focus on dynamic transformations, reversibility.</li> </ul>
Formal operational thought (12 years and up)	Adolescent egocentrism is seen in the imaginary audience and personal fable.	<ul style="list-style-type: none"> <li>Hypothetico-deductive reasoning emerges.</li> <li>Abstract thought emerges.</li> </ul>

Due to the focus of the present study on 5-7 years children, the pre-operational stage will be discussed in detail in the following paragraphs. According to Piaget, the second stage of cognitive development is that of Pre-operational thoughts. This stage is characterized by use of mental representation and intuitive thought. The children start showing their mental representation in their language, play (when they pretend that a blanket is a magic carpet; they pretend themselves in different characters) and artwork. At this stage, children start reasoning or develop intuitive thought based on their personal experience.

Piaget was of view that young children are unable to understand others' perspectives, they think that everyone must think the way they are thinking. This is called intuitive thought by Piaget. At this stage children's thoughts are also characterised by Animism, in which they think that objects have conscious life and feelings. For example, they could feel that a toy gets hurt. In addition, these children also think that natural objects (sun, moon etc.) are under their control; this idea is called Artificialism. The children also suffer from conservation problems at this stage, these problems involve number, liquid quantity and mass. For example, in an experiment, if you put the same amount of liquid in two cylinders and then transfer liquid of one cylinder into taller and narrow cylinder, the child would say that the taller one has more liquid (Cook & Cook, 2005).

Byrnes & Bernacki (2013) discussed the structural aspects of cognition: knowledge, processing capacity and affective orientation while relating to information behaviour. According to authors, if someone has more knowledge and more processing capacity, they perform efficiently and accurately. Affective orientation is related to interest, values, level of attention and effort that people allocate to specific information or task.

Knowledge is stored in human mind in the form of categories for example content domain (mathematics, science, history etc.). Within each content domain, adult knowledge can be classified into three types: declarative (knowing **what**, 9 is the answer to  $3*3=?$ ), procedural (knowing **how**, how to search information on web) and conceptual (knowing **why**, why 9 is the answer to  $3*3$ ) Byrnes & Bernacki (2013).

Two other features also influence adult's knowledge, associative and hierarchal structure of knowledge. The associative structure derives from the fact that elements of information or experience co-occur. The hierarchical structure is mainly associated with conceptual knowledge and categorization (Byrnes & Bernacki, 2013).

In addition, Byrnes & Bernacki (2013) claimed that a number of studies argued that high school students and adults tend to possess more declarative and procedural knowledge than conceptual knowledge.

Therefore, their ability to think deep is very limited. The experience and practice is more important than age in the development of expertise in any field (for example parents may learn the use of mobile phones from their children).

Byrnes & Bernacki (2013) reported that research approved that while searching information, more knowledgeable individuals produce more accurate results than less knowledgeable individuals. However, some contradictory studies argued that children and adults can locate same information but adults can more likely understand the complex information. The authors also highlighted that children/individuals who know that a book has index may utilize the information more efficiently than others. They were of view that it is equally important to know the content of the domain knowledge and as well as structure of knowledge. For the present study, the researcher also used TOCs/Index based activity sheets with participant children (chapter 7, section 7.5.4).

Psychologists divide the human memory in two components: permanent and working memory. The permanent memory is a storehouse or knowledge base of a person. Working memory is a concept which is short-term memory, information will be fade if it is not rehearsed or practiced. Individuals have a fixed capacity to remember between five and nine units. If someone has a span of say 7 units and that person heard six letters, he/she could recall all six easily. In contrast, if that person heard 12 letters, he/she could miss 5 letters. Students with larger WM capacity can perform better in studies. Some scientists argued that WM and intelligence are the same. The previous studies examined that WM capacity increased with age, a 10 year old boy can hold greater WM span than 6 years old boy. Another study found that visual WM seemed to double between ages 5 and 10. IB development is strongly related to age factor (Byrnes & Bernacki, 2013). The above discussion by eminent psychologist and reviewed studies confirmed that cognitive development plays critical role in one's information seeking behaviour.

## **2.6 IL literature produced in Pakistan**

The IL literature produced in Pakistan is mostly focused on education and health fields and can be categorized into two types of study: descriptive (role of school library, librarian, budget standards) and research based. Research based studies highlighted IL problems, IL students' skills survey, teachers' conception surveys and children libraries services' surveys. Also researchers compared personal and academic attributes with students' IL skills.

Some early school library surveys were conducted (Khan, 1970; Anwar, 1970; Anwar, 1971), with libraries selected randomly through each district of Pakistan. These studies reported poor budget allocation and

lack of library collection in selected libraries. The researchers recommended hiring of professional librarian and regular budgetary provisions in school libraries.

Fatima (1989) conducted a survey of children sections in public libraries of Pakistan and developed standards based on findings. She collected data about library buildings, collections, services, membership, budget, staff, location etc. through survey questionnaire. She presented an unsatisfactory situation in these libraries. Out of 43 libraries, only 17 mentioned that they had separate seating section for children.

The study reported lack of AV and reference material for children. Based on the findings this study developed standards for children's libraries in Pakistan.

A literature based study (Gorman & Ameen, 2009) identified problems and existing situation of information and digital literacy (IDL) in developing countries. The authors used Pakistan's example as a case to illustrate picture of IDL situation. The studies related to Pakistan, India, Malaysia, Vietnam and Singapore were focused. This study highlighted that there was no support from policymakers, a lack of IDL education, deficiency of IDL educated staff and unnecessary emphasis on ICT infrastructure: these emerged as the main barriers in these countries. The study criticized that in these countries government policies are overemphasized on building IT infrastructure, however the awareness and IDL education are equally important to be considered. It was also suggested that education at all levels should be more resource based than ever in these countries.

Mahmood (2013) conducted a cross-sectional survey of 30,000 under-graduate and graduate students in Pakistan to determine the level of their IL competencies. The author hypothesized that there is a strong relationship between students' personal, academic attributes and information literacy skills. The inquirer used survey questionnaire based on 20 IL skills covering range of items. However, the author did not discuss how the survey instrument was developed or adapted from literature. It was observed that author used jargon (evaluation, reference collection, bibliography, advance search etc.) in questionnaire but it was not discussed how these were explained to participants during data collection. The results show that null hypothesis was rejected and humanities group students possessed lower skills than sciences and social sciences students. As the government implement compulsory IT education, therefore undergraduate students were more information literate (IL) than graduate students. The study also found that those students who had access to computer at their homes possessed more IL skills than those who did not. This study explored more perceived ICT (information & communication technology) skills of students than IL skills. The findings revealed that students possessed basic skills, however lack in specialized skills.

Another study assessed current information literacy practice in medical libraries of Pakistan (Ullah & Ameen, 2014). The researchers used semi-structured survey questionnaire and collected data from 69 usable responses of head librarians. The instrument had eleven questions covering IL instruction practice, delivery, assessment mode and demographic information. They study found similar results from private and public institutions/universities. The majority of the head librarians were offering library orientation followed by introductory information skills and advance information skills. It could be debated here whether library orientation is a type of IL instruction or not. A list of 15 IL topics (evaluation, online searching, identification of information need, scholarly publishing etc.) were asked from participants, they ranked introduction to library resources and services higher than other topics. Scholarly publishing, use of citation management software and theory and practice of evidence based medicine were ranked low by the head librarians. It was revealed that IL instruction delivery method was informal and irregular. The majority of the respondents (librarians) were responsible for IL instruction program in selected medical universities and institutions of Pakistan.

The area to know about the IL practice in the country is not explored by researchers at school level. Batool and Khalid (2012) conducted a study to know the perceptions of primary school teachers about their students IL skills. The survey was questionnaire based which developed by using and customizing Western IL standards. The research reported that teachers are very promising about their students' IL skills. Another study (Kousar, 2010) although conducted at postgraduate level reported that teachers are very positive about their students' IL skills.

These studies present only one aspect of IL practice in educational institutes. The literature review process determined above gaps and helped in identifying the objectives of the present study. The present study is an attempt to present the holistic picture of IL practice in primary schools of Lahore city.

## **2.7 IL initiatives in developing countries**

The literature shows that information literacy initiatives are well documented about some countries, notably United States, Europe and Australia. IL efforts in Canada, China, Japan, Mexico, Namibia, New Zealand and South Africa are also well recognized (Edzan & Saad, 2005). However, many initiatives in Asia are not documented or, if documented, classified under literacy or libraries sections.

UNESCO and IFLA have arranged many IL training programs and workshops in Asian countries to promote IL in this region (Edzan & Saad, 2005; Ameen & Gorman, 2009). However, due to Western IL efforts in these countries, models adapted from Western cultures made IL practice superficial and unlikely to

succeed in this way (Dorner & Gorman, 2006). A study conducted in Nigerian universities reported that majority of the libraries used the ALA definition and framework and some used CILIP definitions in their IL practices (Baro & Zuokemefa, 2011). Information actually exists in the context and individuals' information seeking behaviors influence with their experiences and background. It is difficult to translate IL in other languages, so information professionals from other countries should use careful and appropriate terminology for this umbrella concept (Lau, 2006). Conteh-Morgan (2001) conducted a study on English as second language students and found limited utilization of IL instructions. The findings of the study suggested exclusive IL course and instructor should be offered to these students based on their information needs and background. Dorner, & Gorman (2006) while examining the cultural factors on IL curriculum and programs suggested focusing on contextual variables to develop IL education models. They suggested operation IL definition for developing countries:

- to be aware of why, how and by whom information is created, communicated and controlled, and how it contributes to the construction of knowledge
- to understand when information can be used to improve their daily living or to contribute to the resolution of needs related to specific situations, such as at work or school
- to know how to locate information and to critique its relevance and appropriateness to their context
- to understand how to integrate relevant and appropriate information with what they already know to new construct knowledge that increases their capacity to improve their daily living or to resolve needs related to specific situations that have arisen (p.284).

The Commission and Information Unit UNESCO aimed to incorporate IL into South-East Asian countries school curriculum (Edzan & Saad, 2005). Among some of IL efforts in developing countries, one model "Empowering 8" (see Figure 2.1) has been more extensively developed. It was developed with the involvement of International and Sri Lankan participants and refined in a workshop held in Sri Lanka in 2003 (Wijetunge & Alahakoon, 2005). Although the model based on discussions and introduced with change of wordings but created specifically to take into account South Asian developing countries situations (Ameen & Gorman, 2009). This model is also practiced in Indian schools for secondary students (Tenzin, N., n.d.).

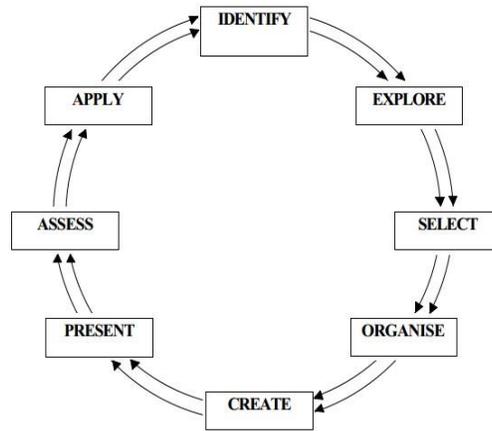


Figure 2.2: Empowering 8 model

from “Empowering 8: the Information Literacy model developed in Sri Lanka to underpin changing education paradigms of Sri Lanka” by Wijetunge, P. & Alahakon, U.P. , 2005, Sri Lankan Journal of Library & Information Management

Edzan & Saad (2005) mentioned while describing IL developments that Malaysian government and overall society is active to promote IL in country. Efforts of National Library of Malaysia and public libraries include offering IL packages and workshops to the students and general public. IL is embedded in primary and secondary educational systems, however yet to be embedded in classroom practices. Government took many initiatives one of that is smart schools project, one of its aims is that to enable student to process and manipulate information.

Efforts have been made regarding IL in Malaysia; however there is a need to have clear vision on IL policies. NILA (National Information Literacy Agenda) (Figure 2.2) is a five point agenda include IL framework suggested by Edzan and Saad in 2005. The framework includes all levels of basic education; standards are further divided into science and social science students according to their information needs at higher education level.

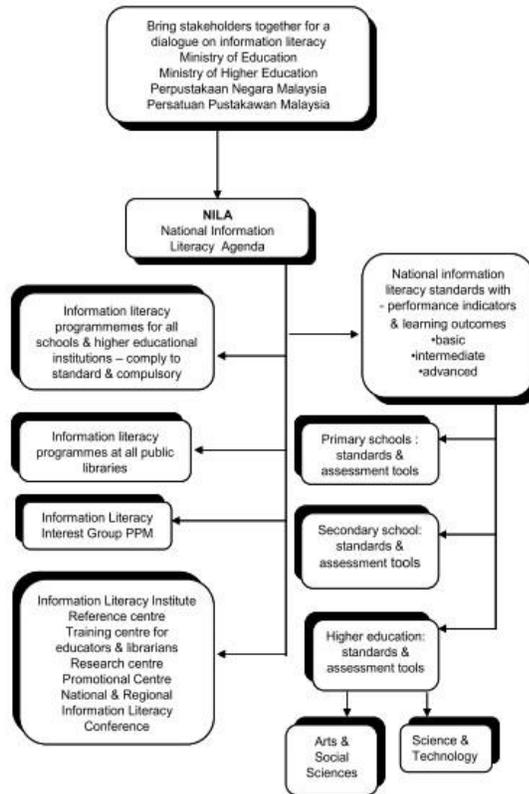


Figure 2.3: Information Literacy Framework for Malaysia

from “NILA: National information literacy agenda for Malaysia”, by Edzan, N. N. & Saad, M. S. M., 2005, Malaysian Journal of Library & Information Science, 10(1), p.100.

In India (Ghosh, 2006) the National Commission identified the knowledge life cycle of a person in different phases of life. The Commission proposed IL skills integration needs from secondary education through work age; however, the link is missing with primary education (See Figure 2.3), it just links to literacy. It could be argued that the Indian commission did not consider that IL learning should be linked with primary education as shown in other studies conducted in developing countries. At School level in India one can find informal IL practices for example Library hours, Library classes etc. which educate pupils about how to use library materials (Ghosh & Das 2006). The College level information literacy package in India focused more on ICT learning, according to a news item one of the university aims is to provide “basic information about IT tools, to introduce to them electronic sources of information, train them in searching for information stored in a multi-media format, train students to use computer-aided instruction packages, introduce various online search programmes and methods to identify sources of information, including subject gateways, in the Internet and train students to use the `Online Public Access Catalogue” (Mahadewan, 2006, para 3).

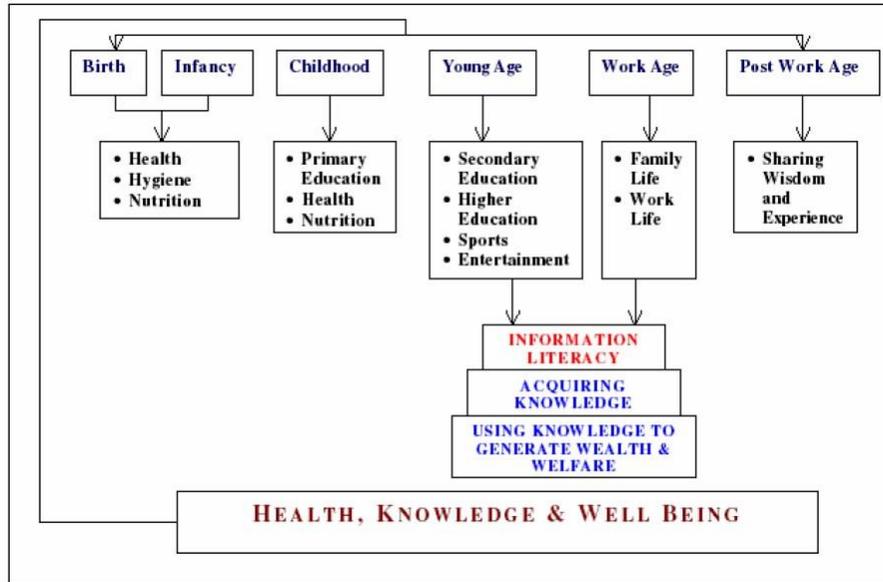


Figure 2.4: Knowledge life cycle: Integration of Information Literacy

From “Information literacy initiatives in India with special reference to emerging knowledge economy”, In International Conference on Information Literacy. Conference held at Kuala Lumpur, Malay

## 2.8 Literature’s contribution in developing the present study’s research questions and objectives

The researcher’s previously conducted study (Batool & Khalid, 2012) on primary school teachers’ perceptions about their children’s IL skills was the piece of research that stimulated researcher’s thinking to further explore the situation. From the literature (most influential work was Lloyd’ (2011) information literacy practice perspective) researcher learnt that current information literacy skill based approach did not account information literacy as complex social phenomenon Lloyd (2011). The author argued to understand the information literacy phenomenon one should focus on social settings and activities. Therefore, the researcher employed the practice perspective of information literacy to achieve the objectives of the present study. It was not intended to adopt practice theory approach to achieve present study’s objectives, however, information literacy is seen as a practice approach which involved people’s doings and interaction. Because researcher became aware of a practice approach to IL and learnt more about it, therefore, felt a firmer foundation to focus on practice in the classroom, and it will provide new ideas of aspects of practice to focus on (RO 1, RQ, 1).

Lundh (2011) also employed socio-cultural and information practice aspect to examine information activities in primary schools in Sweden in relation to project based teaching. Four ethnographical studies were conducted in three primary schools, where project based teaching method was used. The study

found that project based teaching with ICT should be enacted with information literacy practice for better learning outcomes. This study's data collection phases or conducted activities provided me the ideas to collect data from school children. The ideas were adapted and modified to consider the social and cultural circumstances.

The researcher learnt more from practice theory approach and got many specific ideas. For example, to see the social modality of IL practice within schools, it was decided to investigate the teaching experiences of teachers (teaching practice), roles of library and librarian and students' reflection on what they have learnt in classrooms in terms of information literacy (RO 2 &3, RQ 2 &3).

As Lloyd claimed that information literacy practice can be understood by the site (for the present study schools', classrooms and library learning environment), its actors (for the present study teachers, children and librarians) and objects (documents, classroom activity sheets and photographs)(RO 5).

The researcher also learnt this from literature that previous studies (Shenton & Dixon, 2003; Chang, et. al. 2012) focused on examining information seeking behaviours and IL skills as an important component of its practice. To cover this important aspect of IL practice, the researcher also decided to analyse the school children's IL skills. It was decided to conduct group interviews and task based activities with children (see chapter 3 for details) (RO 4, RQ 3).

The practice perspective on information literacy concept was very helpful in understanding IL as a concept and the epistemic, social and corporeal aspects helped researcher in developing research questions and identifying study participants. This piece of research helped in building research questions and also provided ideas to include teachers, students and observation. Similarly, epistemic concept provided the idea to look into existing documents (curriculum, school statistics, classroom/homework assignment sheets), in building chapter 4, the researcher attempted to review related documents. The analysis of documents which show that IL component was present, further stimulated researcher's thinking to develop a model that could be helpful in building on what (little) was there already, to help future practitioners and policymakers (RO 6 & 7, RQ 4).

## **2.9 Concluding Remarks**

The available studies were reviewed in this chapter and chapter four to frame the background, importance and research questions of the study. The literature reported various definitions/terminologies which have emerged in this area.

However, the existing definitions of information literacy have more common attributes than differences. The available IL theoretical work can be divided into standards, models, frameworks, and youngsters' information seeking models. Existing theoretical work was contributed by researchers, organizations and information professionals. In education, the majority of the IL literature is focused on higher and undergraduate level, rather than school level. Literature pointed out a missing link between school and college IL learning. Literature highlighted western influence on IL practices in developing countries and less emphasis at school level. The reviewed studies also highlighted practice and skill based perspectives on information literacy. This chapter identified the gap of IL literature at school level at national and international level. At school level practice aspect of information literacy is less explored than skill based approach. Therefore, it was decided to examine IL practices in primary schools of Lahore, Pakistan. In Pakistan few research based studies were conducted in this area. These studies highlighted the importance of IL in the country, identifying problems with implementing IL, knowing information behaviours of different sectors and measuring perceptions of IL. However, no previous study adopted the practice approach of IL and examined the situation through different lenses in depth and in detail.

## **Chapter 3 : Methodology**

### **3.1 Introduction**

This chapter presents a detailed overview of the research philosophy, design, method and data collection tools of the study. It explains the process of research design; the way it proceeds and modifies. It discusses the selection of appropriate methods for the study in the light of research objectives. The chapter also highlights the philosophy of research with its ontological, epistemological and methodological stances. Details of data collection tools and data analysis techniques are also discussed in this chapter.

### **3.2 Conceptual Framework**

Maxwell (2004) states that a conceptual framework is an integral part of one's research, articulating the basic concepts, assumptions, beliefs and theories that support your research. According to Miles and Huberman (1994) conceptual framework is "a visual or written product, that explains, either graphically or in narrative form, the main things to be studied—the key factors, concepts, or variables—and the presumed relationships among them" (as cited Maxwell, 2004, p.39). It is important to understand the study's plan and to develop conceptual framework, it may be tentative but will be helpful in determining the directions of the study.

There are four ways to construct a study's conceptual framework and these are: your own experimental knowledge, existing theory and research, pilot and exploratory research, and thought experiments (Maxwell, 1996, 2004). For the present study, the conceptual framework (Figure 3.1) was developed based on researcher's knowledge and pilot study. It was decided to modify the tentative framework based on researcher's knowledge after the pilot, to select the best design for the study. Other approaches to construction of conceptual frameworks such as existing theory and thought experiments were not appropriate for this study as there was no existing theory and model for the present situation.

Experimental knowledge brings your previous background and knowledge about the topic or issue. Maxwell (2004) argued researchers are key instruments in research and their knowledge is an important component to build theoretical framework. He discussed many authors supporting the idea that one should not discard a researcher's own experience about the situation and use it to strengthen further research. He called this technique 'researcher identity memo'.

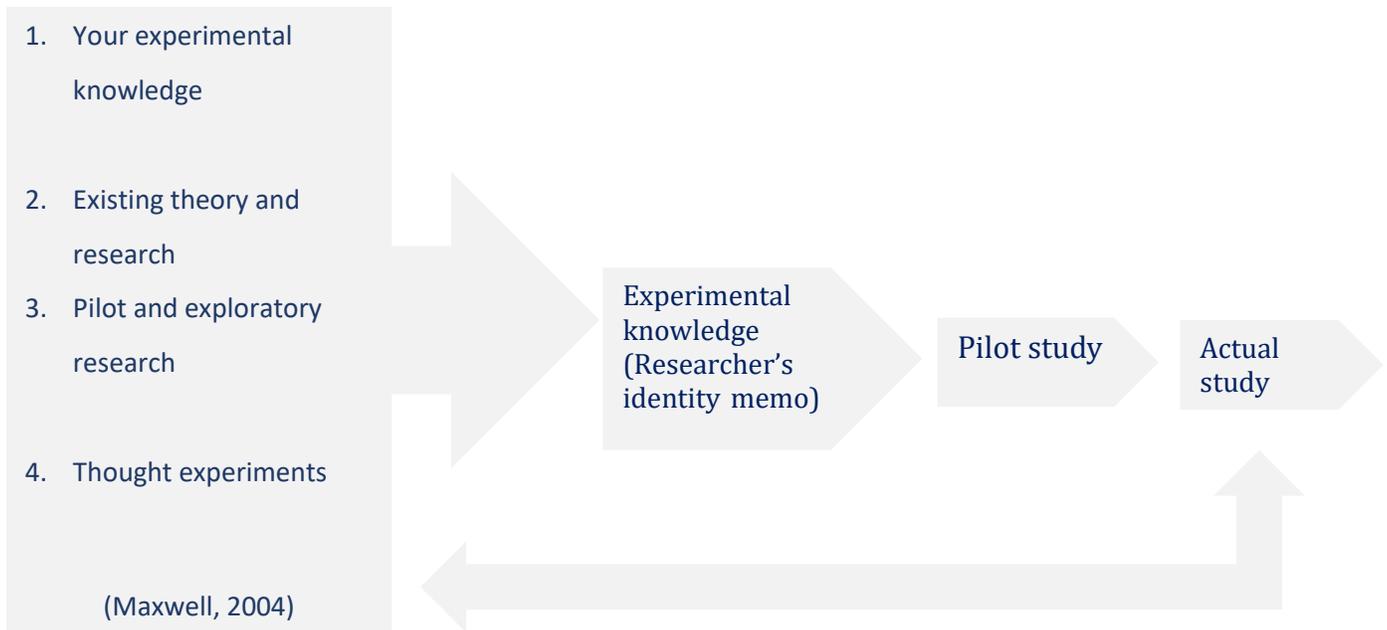


Figure 3.1: Conceptual Framework

### Identity memo on school information literacy

Being a faculty member in the University of the Punjab, Department of Information

Management, I always read literature on information literacy (IL). I also assisted one of my colleagues in developing an IL course for masters' degree classes. I found this area very interesting for research. I knew one of my friends who conducted research on postgraduates' IL skills (Kousar, 2010). I tried to know what is happening on other levels of education regarding information literacy. Being a mother of 4 and 6 year old children, I became interested to know their IL skills and the role of school in building their skills.

Review of the literature provides serious gaps in the area of information literacy in Pakistan. Some studies reported the importance of information literacy, issues of information literacy and postgraduate students IL skills as perceived by their teachers (Bhatti, n.d.; Bhatti, 2010; Ameen & Gorman, 2009; Kousar, 2010). I have decided to know primary teachers' perceptions about their students IL skills (Batool & Khalid, 2012: I am the first author of this study). Except this study there is no research based literature available on information literacy in schools in Pakistan. This study presented one aspect of information literacy, students IL skills as perceived by their teachers. This made me more curious to know about other aspects of information literacy practice in schools. This was the starting point of my thinking; I became interested to know that if teachers perceive their students as information literate, what IL skills they possess and how they are building these skills? How do students find their relevant information? These questions

compelled me to explore the phenomenon, uncover the multiple aspects of information literacy practice in schools and fill this literature gap for future researchers. On the basis of my previous knowledge, the framework of the study is discussed below. The researcher decided to use exploratory multiple case studies nested sequential design to conduct the study.

A pilot study was conducted to test methods, to select cases and to select nested units for the current study (Figure 3.1). Maxwell (2004) supported the idea to conduct a pilot before constructing the framework of the study. He was of view that no design is as complete as it should be, therefore pilot is always beneficial to design best suitable framework for the study. A school was selected for the pilot to highlight potential units of IL practice in schools, the best method to collect and analyze data. The pilot case helped in selecting potential cases for the study. However, no major changes were made after the pilot study.

### **3.3 Study Objectives**

The study explored the IL practice in primary schools of Lahore, Pakistan. To see the phenomenon in depth multiple aspects have to be highlighted through different data sources. It is not the purpose of the study to generalize the findings about the overall information literacy status in Pakistani schools. This work will depict the key factors to be considered for information literacy in Pakistani schools in future. The main drive of the study is to highlight the actual situation of IL in selected schools and to identify the basic gaps in the whole process. The following research questions directed the study:

- What are the IL practices in primary schools?
- How are teachers applying IL in classrooms?
- To what extent are children able to apply what they have learnt in the classroom?  
What are the possible barriers and what is needed to improve IL teaching programs in primary schools in Pakistan?

### **3.4 Research Philosophy**

It is important to decide the study's philosophical positioning, it will help in deciding methods for the study. Some researchers named it 'paradigm' (Schwandt, 2000; Pickard, 2007), Creswell (2009) called it 'worldview'. Paradigm is a set of beliefs that guides the study. Pickard (2007) says it is a collection of all beliefs, values and techniques that guide research. Many researchers identified and discussed different paradigms at different times. Paradigm describes views of its community, the nature of reality and

researcher's position in it (Guba & Lincoln, 1994). To choose the paradigm for the present study researcher used Creswell's (2009) classification of paradigms. He classified them into four worldviews i.e. postpositivism, constructivism, advocacy/participatory and pragmatism (see Table 3.1). The present study objectives are closely aligned with social constructivism (interpretivism) research approach, the following paragraphs will provide the reasons and justification of the chosen paradigm.

Creswell (2009) claimed that the positivist view is also called postpositivist, empirical science and positivism. The positivist approach stands on the fact that reality exists and can be identified and analyzed. Proponents of this view believe that reality and researcher are separable (Pickard, 2007; Weber, 2004). They believe on the objective role of the researcher, that investigator can report the reality without being the part of it. They are of view that knowledge cannot be constructed but can be tested, verified or refined. This view intends to reduce the ideas and confirm or reject the knowledge on the basis of observation and measurement of the objective reality (Creswell, 2009). This paradigm focused on the fact that evidence produced during research is always imperfect and subject to uncertainty and probability but still the reality is there to discover (Pickard, 2007). The researchers (Bruce, 1997; Johnston & Webber, 2003; Martin, 2013) espoused IL as contextual, therefore, positivist approach does not support study objectives.

The advocacy and participatory paradigm takes one step ahead from social constructivism. These researchers believe that research based on an action agenda to change the life of participants (Creswell, 2009). The research inquiry should be based on need based agenda and become a voice for the participants. This research usually addresses big societal issues to bring change. For present study, the researcher believes that IL research has societal impact, but researcher is not approaching it primarily as a piece of advocacy.

The pragmatic worldview is philosophically based on mixed method studies; researcher intends to apply all approaches to understand the situation (Creswell, 2009). These researchers need to identify the reason to mix quantitative and qualitative data and use a best mix of techniques to understand the phenomenon. The researchers (Sen, 2013) who adopted pragmatic view of research believed that some facts can be proved or measured but people perceptions can vary from person to person, so here believed in multiple realities. The shifts between theory and research completely align with pragmatic research approach. However, the nature of the present study is exploratory and not directed to blend theory and research. Sen (2013) used pragmatic approach as simultaneously she wanted to look into theoretical framework of

MO (market orientation), its evidence in non-profit context (library & information science) and allowing issues (theories) to emerge from data inductively, to see a wider picture of the situation.

Table 3.1: Four worldviews of research paradigms

<b>Positivism</b>	<b>Constructivism</b>
Determination Reductionism Empirical observation and measurement Theory verification	Understanding Multiple participant meanings Social and historical construction Theory generation
<b>Advocacy/Participatory</b>	<b>Pragmatism</b>
Political Empowerment issue-oriented Collaborative Change-oriented	Consequences of actions Problem-centered Pluralistic Real-world practice oriented

Note. From “The selection of a research design”, by Creswell, 2009, p.6, London: Sage.

The ‘social constructivism’ often combined with interpretivism is typical approach to qualitative study (Creswell, 2009). The present study’s objectives can be best achieved by using this approach. This approach relies on the fact that reality exists in the lived experiences of the subjects. Initially these researchers focused on ethnographic studies, later Barney Glaser and Anselm Strauss provided a framework for interpretive research (Pickard, 2005). Interpretivism claims there are multiple realities of single event/situation and researcher’s job is to construct the reality (Merriam, 2009; Pickard, 2007). This approach also favours that reality is time and context bound. Under this approach a researcher does not test a theory, but rather intends to understand the phenomenon. Pickard (2007) identifies that interpretivism focuses on context or setting of the subject, it attempts to enquire the whole context holistically. This approach aims to enhance knowledge and understanding (Jackson, n.d.)

The research process under this view is inductive, the investigator generates theory from the data collected (Creswell, 2009). Interpretivists believe that human actions are so meaningful and to understand a social action one has to grasp the meanings that constitute that action (Schwandt, 2000). Interpretivists aim to interpret the understanding of participants about a specific phenomenon. To gain holistic understanding, a researcher must grasp the whole context such as beliefs, actions, intentions, desires, language, context and so on (Schwandt, 2000). The proponents of this paradigm tend to interpret the meanings of participants about the world and participants express on the basis of their historical and social perspectives (Creswell, 2009). As this worldview seeks to understand the whole context, qualitative study is particularly associated with it. The common characteristics of qualitative research combined by Creswell (2009) are:

### **Natural setting**

The qualitative researcher collects data from the natural setting or field where the actual problem or issue exists. Unlike quantitative studies there are no labs or instruments sent out in the field to collect the data.

### **Researcher as key instrument**

The researcher is the key player who collects the data by examining documents, observing behaviors and conducting interviews.

### **Multiple sources of data**

To see the complete picture of the phenomenon and make sense, the qualitative researcher collects data from multiple sources of information like written documents, interviews and observations.

### **Inductive data analysis**

Here the researcher applies a bottom-up approach by deriving themes from small units of information and the process continues until the establishment of the comprehensive framework of all themes.

### **Participants' meanings**

The main focus is on the participants meaning about the phenomenon not the investigator's interpretation of the situation.

## **Emergent design**

Qualitative research design is emergent and flexible not pre-planned and fixed. The research process may change or be modified according to the need felt by the investigator.

## **Theoretical lens**

The researcher tends to organize the study by identifying the social, political, or historical context of the problem under study.

## **Interpretive inquiry**

This approach focuses on the multiple interpretations of the reality. The investigator makes interpretation of what he or she sees, observes and listens to the combination of the participants' interpretations to give the multiple views of the problem.

## **Holistic account**

The qualitative researcher tries to sketch the enormous picture of the phenomenon by reporting multiple facts and aspects of the problem under study.

### **3.4.1 This study's research philosophy**

This study adopted the social constructivism stance (often combined with interpretive approach) to investigate the IL practice in primary schools of Lahore, Pakistan. The study did not intend to test existing theory, but rather seeks complete understanding of the situation. To make representation, interpretation and reflection interpretive is more viable than a positivist approach. Proponents of this paradigm declare it close to the qualitative approach. As Creswell (2009) stated "we conduct qualitative study because a problem or issue needs to be explored" (p.47). So qualitative study is always ideal when one has to research a complex issue and want detailed understanding of the issue (Creswell, 2009).

This paradigm focuses on studying the 'whole' of the situation/phenomenon/event. The researcher collects the sufficient amount of data, mostly uses open ended questions, carefully interprets as viewed by the participants and then reports in detail. The inquirer tries to present the whole picture of the situation within the real context. The present study also intends to gain the holistic picture of the situation.

The social processes are hard to be studied by hypothesis; instead one should be in direct contact with those generating these processes. The present study's objectives can be best achieved in the real context or school setting. Qualitative researchers believe that social realities cannot be studied without their context or settings. Proponents of this approach also claim that there are multiple constructed realities, and all are time and context bound (Pickard, 2007). This research also intends to highlight the multiple realities of the phenomenon within context.

Creswell (2009) also articulated that existing theories provide a general picture of the situations and trends but they do not tell why it is so. He further expressed that we use qualitative approach when partial or inadequate theories exist which do not give us the deep understanding of the situation. In the present study the researcher intends to discover the multiple aspects of the phenomenon which might not be best made possible if the positivist, pragmatic and advocacy approaches were adopted.

### **3.4.2 Ontological Stance**

The ontology of a paradigm relates with the nature of reality. How can reality be identified and worked out? This perspective demands that researchers to inquire about the nature of phenomenon, issue, social reality they wish to investigate (Mason, 2002). Social constructivism takes the stance that there are multiple realities and these can be best understood by the actions of the individuals within real context. People who engage with the reality can construct its meanings based on their experiences. Information literacy is a social practice and can be best understood by the actions of people involve in it within actual context. There can be multiple realities about it based on individual experiences and knowledge, this phenomenon can be best understood by taking a holistic picture of it.

### **3.4.3 Epistemological Stance**

The epistemological question inquires the relationship between the known and the knower (Guba & Lincoln, 1994; Pickard, 2007). A researcher inquires about "how social phenomenon can be known and how knowledge can be demonstrated" (Mason, 2002, p.16). Epistemology concerns how researcher will collect and what he or she will collect to uncover the reality. In research, epistemological stance must be consistent with ontological stance. Social constructivism's epistemological stance is that the known and the knower cannot be separable. Knowledge is time and context bound and can be changed with the experience of the researcher and the subject (Pickard, 2007). The present study's objectives also demonstrate that this phenomenon can be best studied within a real context (school) and findings can

be constructed through individual actions and surroundings. The researcher intends to understand the meanings of information literacy practice as given by the individuals around it or practicing it.

#### **3.4.4 Methodological Stance**

This question concerns how the researcher goes about identifying findings (Guba & Lincoln, 1994). The researcher acquires suitable method or methods to know about findings. The ontological and epistemological stance of the present study directs the researcher to take a qualitative approach to understand the phenomenon. The qualitative researcher seeks to understand the whole phenomenon in depth and within the actual context. The qualitative method allows flexibility within research design and is suitable for a study of an iterative nature (Pickard, 2007). This approach is inductive in nature to uncover multiple perspectives of the issue under study.

### **3.5 Consideration of Research Methods**

There are many approaches to qualitative research. For the present study four research methods were considered. According to the nature of the study phenomenology, phenomenography, grounded theory and case study methods were taken into account. Other methods were not considered suitable to address the study's research questions.

#### **3.5.1 Phenomenology**

This approach is most commonly used in qualitative studies. According to McCaslin & Scott (2003, p.449) "It is the study of the shared meaning of experience of a phenomenon for several individuals". This study aims to discover the phenomenon, what is going on? Larsson & Holmstrom (2007, p.59) state that the "object of research in phenomenology is people's lived experience of a phenomenon". As Creswell (2009) explains: "Phenomenology is a strategy of inquiry in which the researcher identifies the essence of human experiences about a phenomenon as described by participants" (p.13). Here the researcher asks only those participants who have experienced that phenomenon, combines all the data and then describes the experience. Creswell (2007) also states that "Phenomenology is not only a description, but it is also seen as an interpretive process in which the researcher makes an interpretation" (p.59). The researcher also reduces the data while analyzing it to get the most significant information. The investigator gathers data from those who have experienced the phenomenon and articulates a composite picture of the phenomenon. Researcher takes here the situation as object of human experience.

The best suitable problem for this type of study is one in which it is important to look for several individuals' experiences about a phenomenon (Creswell, 2007). This approach has been used in many information studies. Budd (2004) argued that in library and information science this method can be used to study the interaction between the information seeker and information professional. Dalbello (2005) used phenomenological approach to understand the process of developing a digital library system and to see how this process is assessed by those who were involved in it. Wella (2015) found this approach useful for investigating how serodiscordant couples in Malawi experienced HIV and AIDS information phenomena.

A book "Everyday information practices: A social phenomenological perspective" authored by Reijo Savolainen was published in 2008. It analysed the interviews of environmental activists and unemployed people during 2005 and 2006 to find out the practices of information seeking by participants to solve their everyday problems. The above discussion and examples portrayed that this method fits best for the problem where researcher looks for different individual experiences to gain the essence of the phenomenon. The purpose of the present study is to gain the holistic understanding of the specific situation within context (obtaining multiple perspectives on the problem) therefore it seems that this research approach would not have facilitated the researcher best.

### **3.5.2 Phenomenographic study**

Another research approach which has been used for IL and which is close to phenomenology is the phenomenographic approach. Marton (1981) provided the meaning of phenomenographic study, firstly identifying the meaning of the word phenomenon as "to bring to light" and the suffix "graphic" characterises it a research approach that describes the different ways a group of people understand a phenomenon (as cited in Larsson & Holmstrom, 2007). "Thus phenomenography is the study of how people experience, understand or conceive of a phenomenon in the world around us" (Larsson & Holmstrom, 2007, p.56). It is different from a phenomenological approach as it aims to study people's experiences not the phenomenon itself. It focuses on how people see the phenomenon, how they experience it and what they think about it. This approach views that object and subject are not separate and independent of each other (Ornek, 2008).

A large number of studies investigating information literacy used this approach. Smith (2010) applied a phenomenographic approach to investigate the ways in which young people experienced information. She aimed to study the variation among the young people's experiences of information. Another

phenomenographic study investigated the students' experiences of information literacy in their first year undergraduate course (Lupton, 2008). The study illustrated the IL perspective of students to design effective strategies. Harris (2011) utilized this approach to seek the teachers' conceptions of student engagement to facilitate this process. He collected their experiences of student engagement in order to better understand the phenomenon. Another study collected university teachers' perceptions of information literacy using phenomenographic approach. The purpose of the investigation was to discover variation among conceptions of IL and to compare with current IL standards and frameworks (Boon, Johnston & Webber, 2007).

Dokphrom (2010) noted that "phenomenography is an attempt to understand people's perception, perspective and understanding of a particular phenomenon to discover the various ways in which different people experience it" (p.67). This approach focuses on the collective understanding of a group about some situation. In phenomenography it is not always considered important to classify participants into conception categories; instead, this approach is designed to create a map of the conceptual landscape that can (if desired) be further tested using other methods (Harris, 2011).

In the light of the above discussion this approach does not fit with present study's objectives. The purpose is not to explore the differences and similarities among the participants' experiences of the situation, but rather to get a holistic insight into particular contexts. Therefore, a phenomenographic approach would not have facilitated the researcher to seek complete understanding of the phenomenon.

### **3.5.3 Grounded theory**

This method is largely utilized in qualitative approaches (Bryant, A. & Charmaz, K. (as cited in Titscher et al., 2000). Strauss and Glaser presented the idea of generating new theory from data instead of testing existing theory. Later on this notion was changed and improved by many researchers such as, Strauss and Corbin, Clarke and recently by Charmaz (2006). The founders were of view that there are not enough theories to cover the social life and it becomes more complex due to modernization and technological advancement (Glaser, Strauss, 1967). Grounded theory method helps to explore the phenomenon; as Herring (2011) stated 'grounded analysis seeks to answer the question "what is happening?"'

According to Creswell (2007) grounded theory moves beyond descriptions to discover or generate theory; this might help explain the practice or provide a framework for further research. Grounded theory has been grounded in the field data and processed through social actions, attitudes and interactions. Thus Stauss & Corbin (1998) stated that "grounded theory is a qualitative research design in

which the enquirer generates a general explanation (a theory) of a process, action, or interaction shaped by the views of a large number of participants” (as cited Creswell, 2007, p.63). The purpose of grounded theory is discovery and innovation.

The grounded theory research design is also focused and provided directions that how to collect and analyze data throughout the research process (Pickard, 2007). This approach mostly deals with the qualitative analysis of the data. Grounded theorists begin with an area of study but not with a preconceived theory in mind and allow the theory to emerge from the data (Strauss & Corbin, 1998, as cited Creswell, 2007). McCaslin & Scott (2003) explained that grounded theory enables the researcher to develop an abstract analytical schema of a phenomenon that is a theory.

Herring (2011) used grounded theory approach in order to develop grounded theory in relation to information literacy and transfer in schools. He examined the views of students, teachers and teacher librarians about IL and its transfer in order to generate theory. In another study Herring (2009) used a constructivist approach for investigation of year 8 students’ reflections on IL skills and applied grounded analysis to data. As this study was an initial work of a larger project so author used grounded analysis to see what has emerged from the data to process further research. Lloyd (2005) also utilized constructivist grounded theory to understand the nature and role of information literacy among a group of firefighters. The author (Lloyd, 2005) intends to study different experiences, similarities and differences within experiences and to articulate the whole phenomenon in a way that remains recognizable to the participants in the study. Data were collected and analyzed in phases to refine the process.

The above studies aimed to gain the broad understanding of the process as perceived by the participants in order to construct a theory. The type of problem best suitable for this type of research design is when the objective is to ground a theory in the views of participants (Creswell, 2007). “The purpose is discovery, to engage in research to find out what is going on and why; the research begins with a very broad question and it is not until the researcher begins to observe and collect data that a focus starts to emerge” (Pickard, 2007, p. 157). The present study aims to gain comprehensive understanding of a specific phenomenon in specific context not to develop a theory.

#### **3.5.4 Case Study Approach**

The fourth approach to be considered for the present study was case study. This method has been used for a long time in many disciplines. It is a very common approach in psychology, sociology, political

science and social work (Yin, 2003). This method has a long background in the history of many disciplines. According to Creswell (2007) “Case study research is a qualitative approach in which the investigator explores a bounded system (a case) or multiple bounded systems (cases) over time, through detailed, in-depth data collection involving multiple sources of information (for example observations, interviews, audio-visuals, documents and reports) and reports a case description and case based themes” (p. 73). Case studies discover the complex social events of real life.

### 3.5.5 Criteria for the Choice of research method

While talking about social science research methods one cannot ignore case study design as it is fundamental to the substantive and methodological development of social science (David de Vaus, 2001). “A case study is a good approach when the enquirer has clearly identifiable cases with boundaries and seeks to provide an in-depth understanding of the case or a comparison of several cases” (Creswell, 2007, p.74). Yin (2003) discussed that in general case studies may be used to answer the “how” or “why” questions and when the researcher has little control over events. In the present study researcher has no control over the events and wants a thorough investigation.

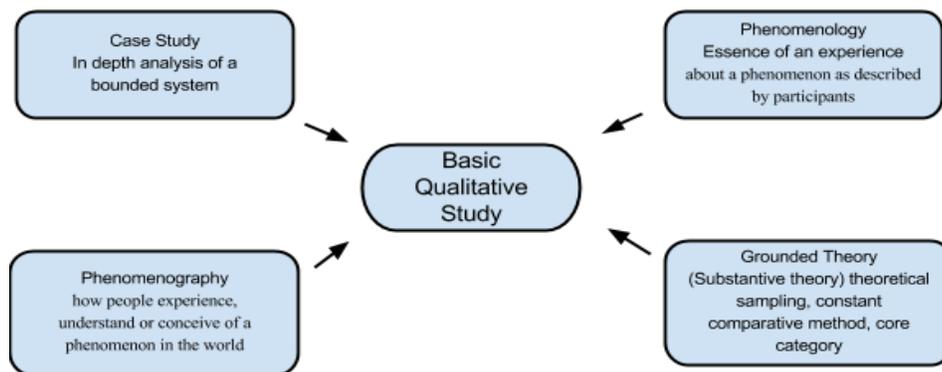


Figure 3.2: Types of qualitative research

From “Qualitative research: a guide to design and implementation”, by Merriam, S. B., 2009, p.38.

Creswell (2007), while contrasting qualitative approaches, stated that the type of problem suitable for case study is when to provide an in-depth understanding of a case or cases. The method is flexible in that it allows the researcher to study an event, an activity and more than one individual by using multiple sources such as interviews, observation, documents etc. (Creswell, 2007). For the present study, the researcher intends to investigate more than one individual (subjects) and will use multiple sources to uncover the phenomenon, therefore it is appropriate to use case study approach.

Baxter & Jack (2008) worked on qualitative case study; they were of view that it is good to explore an issue through a variety of lenses which allows multiple aspects of the phenomenon to be revealed. To

reveal the practice of information literacy, researcher has to study all the facets interconnected with IL in a school's classroom such as students, teachers, classroom activities, assignments. Case studies are not only limited to the individuals, a unit of analysis may be a process, event, place, organization and a specific time period. Yin (2003) stated that "case study method allows investigators to retain the holistic and meaningful characteristic of real life events" (p.4).

Generally, qualitative case studies are favoured in the discipline of education (Merriam, 1998 as cited Creswell, 2007). Dokphrom (2010) applied case study approach to investigate the perception of IL, existing state of its education and to compare perceptions with an existing situation. The researcher selected this from among other qualitative approaches to have better understanding of the situation in a bounded system. This method advocates researcher to study a specific phenomenon within boundary. Zhou (2001) utilized case study method to investigate the development of information skills in schools and library support regarding teaching information skills. She argued for the use case study method to gain a holistic approach to the situation. Similarly, Nazari (2011) developed a contextual framework of IL for an online distance learning (ODL) Geographic Information Sciences/Systems (GIS) programme. She has done this by investigating competencies which are needed to analyze and solve GIS problems, to find, evaluate, and use GI; and solve GIS problems through exploratory case study. This approach has been strongly advocated by Nazari (2010) in her research to illuminate IL and its context holistically. She stressed that it is important to study IL included within its context to explore the situation inclusively. She argued that many IL exploratory studies used surveys, Phenomenography and constructive grounded theories. These approaches provided in depth understandings and explored the variations among different experiences and conceptions, but these could not explore contextual aspects of IL.

Nazari (2010) presented an IL research view point that "case study is a methodology that broadly covers research and practices that tends to describe, implement, or examine IL and or IL practices in a specific project, program, place or more broadly in a specific situation" (p. 180).

The above discussion provides strong footing for proposing that case study approach would ensure the study's objectives best. As the main objective of the present study is to explore information literacy practices in-depth, what is going on and how it is going on, this approach is considered suitable to investigate the phenomenon within context.

### 3.6 This study's Research Design (Case study)

Case study methodology was born in social sciences, especially in anthropology around 1900 mostly based on observation (David de vaus, 2001; Johansson, 2003). Many studies of tribes, community and small group studies are based on this methodology (David de vaus, 2001). There are popular classic texts on case studies for example Stake (1995), Yin (1994, 1998) and more recently Thomas (2011) providing powerful research designs and labels in use in different disciplines: case report, case history, case biography, case study and case method (Swanborn, 2010). Literature reported many developments in this approach. A recent development is the blending of quantitative and qualitative approaches (Swanborn, 2010).

Case studies are compatible with collecting multiple sources of data and are carried out in the case's natural settings. Every single entity has its own surrounding, its processes and complexities; case studies are designed to understand single or multiple entities. "Case study is a study of particularity and complexity of a single case, coming to understand its activity within important circumstances" (Stake, 1995, p.xi). Nowadays, case study design is involved in multiple cases investigation. Qualitative case studies allow the researcher to look at a phenomenon through multiple lenses. Merriam (2009) identified the single characteristic to define case study is that "case study research lies in delimiting the object of study" (p. 40). Two key approaches provided by Stake (1995) and Yin (2003, 2006) seek to ensure that the given phenomenon is well explored and its essence is completely revealed (Baxter & Jack, 2008). Literature labelled case studies with "holistic approach". Swanborn (2010) reviewed it thus:

"What is the origin of the point of view that case studies should be holistic? It originates from the usual situation that a case study is undertaken because it is not (yet) possible to isolate the phenomenon under study from its environment: we simply do not yet know which variables are relevant for the model and which variables are not. In such a situation it seems wise not to be too selective in the choice of variables. That is not to say we, as an unguided missile, are going to observe everything (if that would be possible).

Making use of available theoretical knowledge is always to be advised" (p. 20).

The logical plan to direct the research is called research design. "The design is the logical sequence that connects the empirical data to a study's initial research questions and, ultimately, to its conclusions" (Yin, 2003, p.39). It guides the researcher throughout the research process, to collect, analyse and interpret the findings. It keeps the researcher on a track of research; how to collect, where to collect

and how to construct the findings. It must be rigorously developed and completed before starting a project. “The function of a research design is to ensure that the evidence obtained enables us to answer the initial question as unambiguously as possible” (David de Vaus, 2001, p.9).

The present study followed Thomas’ (2011) approach “how to do your case study” to design its structure. Thomas (2011) identified essential parts of a case study method design drawing and modifying from literature. The author has sorted out the classification of designs by taking out the duplications and adding the important components. According to Thomas (2011) case study design includes rigorous selection of:

- Your purpose, in explaining or evaluating or exploring or so on
- Your approach, in describing or interpreting or trying to build a theory or test a theory
- The nitty gritty of how you will go about actually doing the case study-the process-as in single, multiple, parallel and so on (p.92).

In case study there is a mixture of criteria which has to be selected before designing it. After the selection of a case, one has to identify the purpose of the study which can be determined from study objectives. Then approach has to be selected very pragmatically as it underpins the whole research design and effect on study’s findings. Lastly, one has to decide about the research process to finalize the design. Thomas (2011) pointed out many processes to choose the most suitable to support your objectives. The detail of these processes is discussed later in this chapter. Thomas (2011) introduces two extra processes i.e. snapshot and diachronic. The author used these wordings in order to avoid confusion with other processes. The design can be selected with more than one purpose, approach and process while pondering and linking to research questions.

### **3.6.1 Subject (case)**

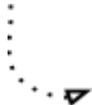
The case is the object of the study and it could be any unit for example individual, process, organization, place. A case is a unit about which the researcher collects all the information and tries to understand it as a whole within the case context. Each individual, program, event etc. can be similar to each other in many dimensions and can be unique at the same time in many aspects, as a researcher we are interested in them and want to study their commonalities and differences (Stake, 1995). We enter in the field to study case or cases holistically to tell others about participants’ own world. “In case study designs it is the unit that we seek to understand as a whole” (David de Vaus, 2001, p. 220). A well designed case study attempted to approach the case from many levels. Researcher should try to identify the specific

propositions about the case or cases in order to avoid misleading and to stay within context (Yin, 2003). “If the phenomenon you are interested in studying is not intrinsically bounded, it is not a case” (Merriam, 2009, p.41).

While discussing the selection of cases, Swanborn (2010) explained one should consider reputation samples (guided by experts, key persons, authorities etc.) through snowball sampling and open applications (from newspapers, professional groups, television etc.) to select suitable case or cases. Yin (2003) discussed two levels of cases such as holistic and embedded units of analysis. Some cases have more than one component; in holistic approach the researcher considers all the components of a case as a whole for example a house may be considered as its location, size, building etc. The researcher will study all the characteristics inclusively. A detailed picture of the house can be explained if we study all the units (embedded units) individually. In some cases, it becomes very important to consider the subunits of a case to unveil the actual situation. If we study the subunits of the study separately, this type of selection called embedded case study. Both approaches have their own advantages and disadvantages. Swanborn (2010) pointed out substantive properties to be considered while selecting cases. He said we should look for informative cases (expected to represent the phenomenon clearly) and representative/typical cases (occupying a model position on putative relevant variables).

The Table 3.2 explains the Case study research design proposed by Thomas (2011). In this Table, the first step (column one) is the selection of subject (case/cases), the next step is determining the purpose of the study (column two) (section 3.6.2), the study approach (column three) is the third step (section 3.6.3) and finally the case study process (column four) is discussed in detail in section 3.6.4.

Table 3.2: Case study research design

Subject	Purpose	Approach	Process
An outlier case  Key case  Local knowledge case  	Intrinsic  Instrumental  Evaluative  Explanatory  Exploratory  	Testing a theory  Building a theory  Drawing a picture, illustrative  Descriptive  Interpretative  Experimental  	Single  Multiple    Nested  Parallel  Sequential  Retrospective  Snapshot  Diachronic

Note. From "How to do your case study: A guide for students and researchers", by Thomas, G., 2011, p. 93, London: Sage.

Thomas (2011) describes three approaches to select case or cases which are: key case, Outlier case and local knowledge case. If you choose a case because of its familiarity with you, it is called a 'local case'. Sometimes you want to explore your work of place, home, school/college/university, hospital, or nearby

shopping mall. Another aspect is to discover things based on your intimate knowledge and where you have complete access to data and can study in-depth. The second route to selecting the case is that you want to select because of its inherent interest to you, called a 'key case'. Sometimes a special case or cases present your interested area of knowledge best in its context (key case). You choose the case because of its special characteristics not because of your personal knowledge. The third approach to selecting a case or cases is called an 'outlier case'. You want to investigate a case because of its individuality (it is special in some way) and showing difference from other cases. The researcher intends to study a particular case because it is different from rest of the cases for example poverty situation in Kerala, India (Thomas, 2011).

### 3.6.1.1 This study's choice of cases

For the present study selection was based on 'local knowledge case'. The choices are represented in Figure 3.3. The researcher is a faculty member of Department of Information Management, University of the Punjab, Lahore, Pakistan. In addition, the researcher teaches an IL course at graduate level, therefore knows the academic position of information literacy in education. The researcher is also aware of some IL practice in private schools of Pakistan, being a mother. A previous study by the researcher (Batool & Khalid, 2012) highlighted the perceptions of primary school teachers about their children's IL skills.

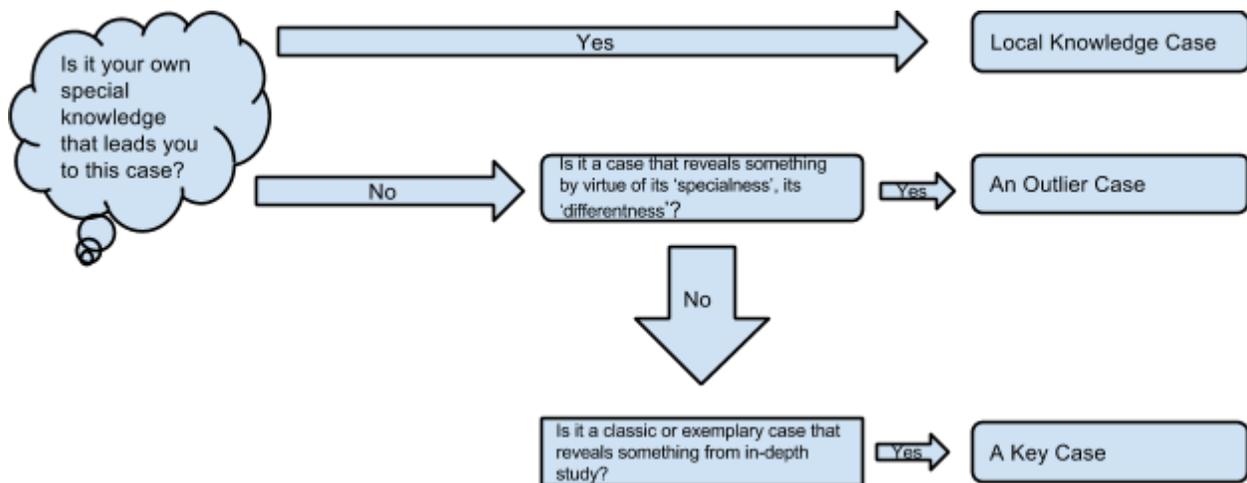


Figure 3.3: where is the study come from?

From "How to do your case study: A guide for students and researchers", by Thomas, G., 2011, p. 93

Based on the researcher's local knowledge it was decided to choose one public and one private school as cases. The important factor in the choice of cases was getting permission for data collection. To get help in the selection of public schools, the researcher visited the directorate (local government) of staff

development; this institute rank public schools on the basis of performance and provides trainings. The key person at the directorate, suggested that the researcher choose more than one public school based on their economic and geographic location to see wider picture of the situation. After discussion with the researcher's supervisor, it was decided to select different schools based on their types and economic geographic location. The six schools' cases were identified and selected after seeking data collection permission.

From available literature, the researcher came to know that there was a need to study IL practice at school level in Pakistan. On the basis of literature, personal knowledge and experience, the present study explores IL practice in schools in Lahore, Pakistan. Primary schools of Lahore, Pakistan were the potential case or cases to support study objectives.

#### 3.6.1.1.1 Case One

The sections (3.6.1.1.2 till 3.6.1.1.6) aim to present basic characteristics of each case sites and the details (Background, Chapter 4; Teaching environment, Chapter 5; Role of libraries, Chapter 5 and Participants' information behaviour, Chapter 7) are described as part to each case descriptions in subsequent chapters.

The case one was a public school located in lower economic geographic area of the city (Lahore). The researcher got permission to visit this school based on personal reference. This school was mixed gender primary school and was a part of boys' high (till grade X, 15 years of age) school.

#### 3.6.1.1.2 Case Two

It was also public sector primary school. The reason to choose this school was that it has many golden traditions and one of the oldest schools that established in 1883. This school was granted autonomous status in 1990 and has its own body of board of governors. There is an entry test to get admission in this school. This mixed gender primary school was associated with boys' high school.

#### 3.6.1.1.3 Case Three

The case three belonged to public sector and was girls' primary and high school. This school was selected as it was located in upper middle class geographic area of the city.

#### 3.6.1.1.4 Case Four

This school was private trust school located in economic lower or middle geographic area of the city of Lahore. It was selected because of its type (private trust) and economic geographic location. It was providing education (to both boys and girls) from primary till high school level.

#### 3.6.1.1.5 Case Five

It was a private un-registered school located in low economic geographic area of the city. To see a wider picture of the situation in private sector, this school was selected.

#### 3.6.1.1.6 Case Six

This school was elite class private school, located in high economic geographic area of the city. This school was selected as it is serving people who belong to different economic class.

### 3.6.2 Purpose

The second important step in the design is to find out why you are doing this study. What is the purpose of the research being undertaken? Different writers use different approaches to identify the purpose of the study. Stake (1995) identifies intrinsic, instrumental, collective approaches and Yin (2003) explains different purposes of case study through exploratory, explanatory and multiple case study designs. De Vaus (2001) also identified descriptive, testing or building theory, single or multiple, holistic or embedded, parallel or sequential and retrospective or prospective approaches. Stake (1995) & Yin (2003) identified key purposes of doing case studies. De Vaus (2001) primarily discussed case study approaches and procedures. The present study used the Thomas' (2011) classification of case study purposes to identify its purpose as he identifies different dimensions clearly, subsuming the key elements mentioned by other authors.

- Intrinsic
- Instrumental
- Evaluative
- Explanatory
- Exploratory

Table 3.3: Purpose of the study

<b>Intrinsic</b>	<b>Instrumental</b>	<b>Evaluative</b>	<b>Explanatory</b>	<b>Exploratory</b>
With an intrinsic study, you are inquiring for the purpose of inquiring.	With an instrumental case study, the inquiry is serving a	With an evaluative study, you are doing the research to see how well	With an explanatory study, you are relating one bit to another in	With an exploratory study, you need to know more about a problem
It's 'blue sky' research (undertaken simply for its interest).	particular purpose. So, the case study is acting as an instrument-a tool.	something is working or has worked (carried out to find out what the change has led to).	order to explain the phenomenon, explanations may be tentative or context-specific.	or issue; you may have little preliminary knowledge of the issue.

Note. Data in columns quoted from "How to do your case study: A guide for students and researchers", by Thomas, G., 2011, p. 97-110, London: Sage.

According to Thomas (2011), a study with intrinsic purpose attempts to study something interesting to the researcher, without a secondary purpose in mind. He called it curiosity driven or 'blue sky' research. A second approach for case study could be instrumental, where the researcher has some purpose which underlies study of that specific case or cases. Here the case is playing a secondary role to support a purpose. The purpose may be to understand something and to make something better. In evaluative approach you are trying to evaluate a new idea, program or a process in order to find out whether things are going better or worse with the change. The basic aim is to study something before the change and after introducing the new idea.

An explanatory approach fulfils the most common purpose of a case study, to explain the situations, phenomenon, event etc. According to Yin (2003) how and why questions need explanation and lead to use of explanatory case studies. Such studies explain how and why a specific phenomenon is like that. In case study we collect all the possible bits of something to explain it, these explanations are tentative and context bound. Rigorously constructed case studies present potential explanations of the subjects.

When the researcher may have little knowledge about an issue or problem and want to know more, the purpose is exploratory. There is interest to know what is happening and why? The investigator may know one or two dimension of the problem and want to study holistically, called exploratory case study. In many studies researcher may decide a combination of above classification of study purposes (Thomas, 2011). In explanatory study researcher already has knowledge about the situation, however do not know that how different aspects will fit together or why things are as they are in a case. Whereas exploratory study is a stage back, you need to discover what is happening to begin with, and then may be able to address some explanatory aspects.

### **3.6.2.1 This Study's Purpose**

The present study's objectives are intrinsic and exploratory. The researcher has personal interests in IL practices being faculty member of the Information Management Department of University of the Punjab, Lahore, Pakistan. Secondly, being a mother, the researcher is interested in knowing how children of primary schools practice IL. The nature of the study is also exploratory as the investigator not only is interested but has little knowledge (Batool & Khalid, 2012) about the situation of IL practice in schools of Lahore, Pakistan. One dimensional knowledge of the phenomenon urges the researcher to know more about it, what, how and why it is happening. Yin (2003) stated that "some kinds of 'what' questions are exploratory, such as, what can be learned from a study of an effective school? (p. 6)". Such type of studies where investigator intends to explore the phenomenon or process fits exploratory case studies.

Commonwealth Association for Public Administration and Management [CAPAM] (2010, para. 4) defined exploratory research as "attempts to understand what happened within a case by looking beyond descriptive features and studying surround context". Yin (2003) indicated that for those topics in which existing knowledge may be poor and the available studies failed in proving any conceptual framework or hypothesis, exploratory case study may be a suitable design to uncover the situation. Nazari (2010) stressed the value of an exploratory approach to study the multiple aspects of IL in depth, such as the educational, disciplinary and physical. She said to better understand IL it is important to illuminate its contextual aspect which is achievable through an exploratory case study design.

### **3.6.3 Approach**

After determining the purposes of the study, the next step is to find out how you will do it. In case study design, the researcher's next step is to identify the approach of the study. Thomas (2011) called it the study's 'analytical frame or object'. The researcher should be clear about the study's approach, testing or building a theory, or the researcher only intends to draw a picture of some situation. The study's approach

will direct impact on its analysis and findings. The research questions should be precise and clear so that right approach can be selected to direct the study. The approach acts like a template for the study to proceed. A researcher may be misled in the whole process of research without determining the overall study approach. Different authors used different classification of case study approaches. This study used Thomas' (2011) classification of approaches: Testing a theory, building a theory, drawing a picture, experimental and interpretative. These are outlines in Table 3.4.

Table 3.4: Approach of the study

<b>Testing a theory</b>	<b>Building a theory</b>	<b>Drawing a picture</b>	<b>Experimental</b>	<b>Interpretative</b>
Your case study aims to test already existing framework (theory) for the phenomenon or situation you are interested.	Building a framework of ideas, model, that somehow explains the subject you are researching.	Your aim in this case study is to illustrate the phenomenon to make it more real for the reader.	You test the ideas under controlled conditions, in social sciences 'an experiment' could be a little trial of something or does 'X' cause 'Y'?	Interpretative researcher assume that the social world is indivisible-an approach that assumes an in depth understanding and deep immersion in the environment of the subject.

Note. Data in columns quoted from "How to do your case study: A guide for students and researchers", by Thomas, G., 2011, p. 111-136, London: Sage.

The first approach 'testing a theory' can be used when researcher aims to test the existing theory or framework to prove or disapprove it. De Vaus (2001) says that "this approach to case studies begins with a set of expectations derived from previous research and/ or theories" (p. 223). The purpose is to uncover whether the theory actually works in the real context or not. If the theory is disapproved, then the thorough analysis of the case suggests that it needs refinement or can be applicable in specific circumstances (De Vaus, 2001). The analysis can also lead to the development of a possible model or framework.

In the 'drawing a picture' approach aim is to illustrate the situation or phenomenon: to draw the subject's picture in such a way that it will look real to the reader. All individuals think and see differently, they all have their own image of world depending on their experiences. "A case study, by presenting those pictures, enables the connections to be made" (Thomas, 2011, p.119). The purpose is not only to draw a picture but to provide inside meaning of the problem or issue. Case studies provide holistic approach of the phenomenon under research. "Descriptions will highlight aspects of the case" (De Vaus, 2001, p.225). This approach gives opportunity to the researchers to express their own perceptions, experiences and interpretations about a case or cases.

An experimental approach tests innovations or measures the impact of 'X' on 'Y'. If a researcher is interested in testing an idea through a case or wants to see cause and effect relationship between two or more variables, an experimental approach is suitable. For example, one could use an experimental approach to measure the IL skills of students and see impact of IL course on it having one experimental and one control group in a case study. Although there are other methods to do it, case studies can better interpret the "change within one situation" (Thomas, 2011, p. 132).

Interpretative is the 'classic approach' to do case study (Thomas, 2011, p. 124). It employs in depth investigations of the subject within context. It probes deep understanding of the given phenomenon. It attempts to gain deep insight into subject's environment. "This kind of approach is often called ethnographic", (Thomas, 2011, p.124). This approach claims that to see social reality objectively is not possible, so the investigator should keep close to the culture of the subject being studied. The researcher builds a theory or framework on the basis of analysis and reflections, later this theory can be tested, rebuild, discarded or modified by other researchers.

The last approach to be discussed is 'building a theory'. Thomas (2011) explained that theory has multiple meanings but here we assume that theory is an "explanatory model or framework of ideas that somehow explain the subject you are researching" (p.112). The researcher is also influenced by pre-existing ideas but it is an open process to draw new insights based on your data. Yin (2003) explained that the theory does not expect to be a grand theory in social science, the goal is to "have a sufficient blueprint for your study" (p. 29). De Vaus (2001) expressed this approach in such a way that "we select cases to help develop and refine the propositions and develop a theory that fits the cases we study" (p.223). The difference between 'theory testing' and 'theory building' approaches is very significant, in testing we start with

existing set of assumptions and try to prove it in real situation, in building we start with research question and look at real cases to build theory.

### **3.6.3.1 This study's Approach**

The present study practiced 'theory building' approach. According to Torraco (1997) "theory is the process of modeling real-world phenomenon" (as cited Dooley, 2002, p. 346). Of the other approaches; the experimental and testing theory will not allow the researcher to support the study's objectives (particularly as there is no initial hypothesis). The objectives are not to test any innovations or to test existing theory. 'Drawing a picture' approach aims to illustrate the phenomenon to make it more real for the reader; it is not compatible with the aims of the present study. 'Interpretative' and 'theory building' approaches are considered most suitable to achieve the objectives of the study. Interpretative approach probes deep understanding of the given phenomenon within context and the 'theory building' approach allows researcher to do more after exploration of the phenomenon. The investigator intends to explain the situation (subject) in terms of an 'explanatory or contextual model'. Therefore, these two approaches are most appropriate to achieve the present study objectives.

Many authors (Eisenhardt, 1989; De Vaus, 2001; Dooley, 2002; Yin, 2003; Nazari, 2010) supported the idea of building theory (explanatory model or framework of ideas) from case studies. To emerge new theories or ideas rigorously one has to go through multiple aspects of the situation within context. "This methodology allows the researcher to use a variety of research methods and different types of data sources that facilitate triangulation" (Nazari, 2010, p. 180). This analysis facilitates the researcher's illumination of deep different aspects of the phenomenon within specific surroundings. "The possibility of generating new theory is increased with case study research" (Dooley, 2002, p. 345). Case study has many characteristics that make it substantive to build theories. Firstly, they can be used to study a phenomenon in its natural surrounding with deep understanding. Case studies allow researchers to seek multiple aspects of the subject. It is flexible and open methodology to use multiple sources of data to make logical relationships. As theory building requires "ongoing comparison of data and refinement between theory and practice" (Dooley, 2002, p. 335).

Eisenhardt (1989) defined case study as "a research strategy which focuses on understanding the dynamics present within single settings" (p.534). Other proponents of case study supported the idea to build theories from this methodology, although they could not provide "how to do it" process.

Eisenhardt's approach in this context is very popular and cited widely in many case studies. Nazari (2009) also supported and utilized Eisenhardt's theory building process to develop a robust IL model for online distance learning (ODL) GIS (Geographic Information Science/Systems) in the context of an ongoing partnership ODL GIS programme in the Universities of Leeds, Southampton and Penn State.

### 3.6.4 Process

The last step in the design of a case study was to decide about process. "How you will go about structuring your case study?" (Thomas, 2011, p. 137). Here researcher has to decide about doing case study with single or multiple cases and the sequence of doing it. The investigator works out whether to study all cases at once or in sequential order, whether "you want to separate out nested elements of single case for special examination" (Thomas, 2011, p. 137). At this last step, the researcher decides the structure of case study in order to conduct it. Thomas (2011) suggested single case and multiple cases investigation. Key aspects are illustrated in Figure 3.4 and explained further, below.

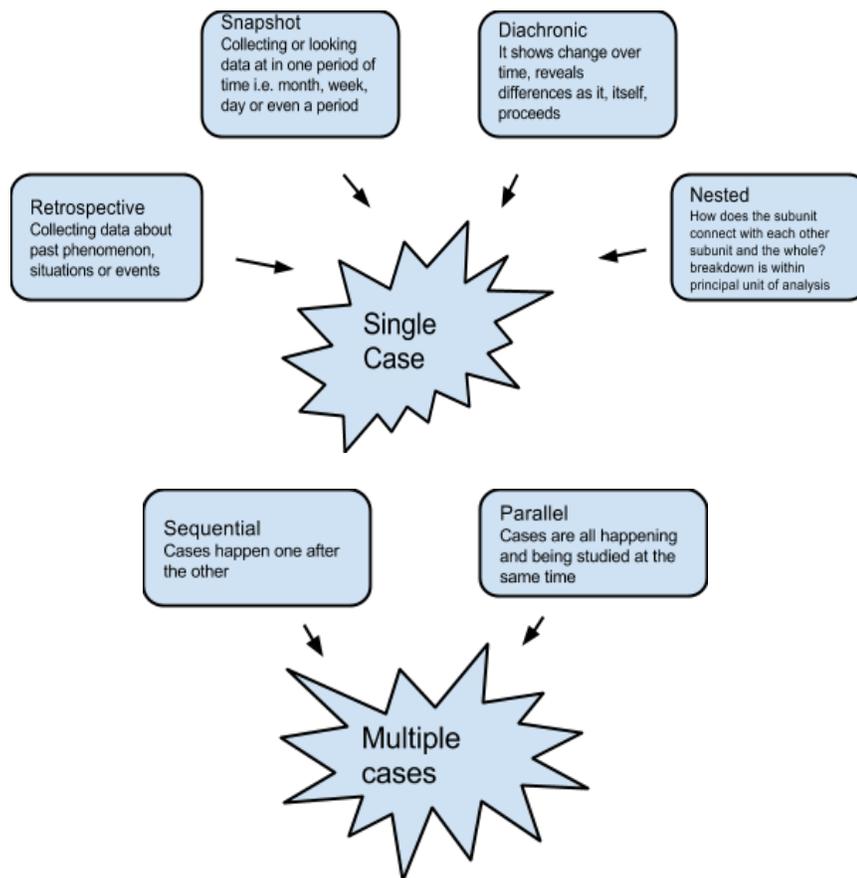


Figure 3.4: Single and multiple case studies

Data in figure from “How to do your case study: A guide for students and researchers”, by Thomas, G., 2011, London: Sage

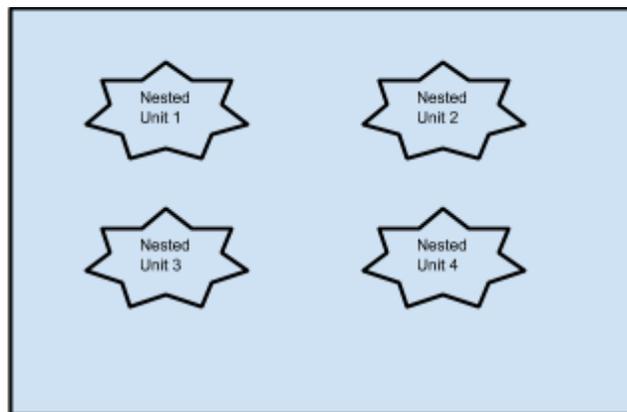
The author classified cases into two main types such as single and multiple case studies, and later classified them further. Single case is one of the typical forms of case study. “The focus, when choosing the single case study, has to be on the characteristics that give it some interest” (Thomas, 2011, p.138). Yin (2003) justified five rationales for single case study design. Firstly, if the case represents critical case to confirm, challenge or extend the theory. Secondly, if case represent a unique or extreme case, for example a specific injury or psychological disorder. Single case study is appropriate to uncover multiple aspects of the specific situation. Third rationale to consider single case study is a typical or representative case. Researcher intends to seek specific circumstances and conditions of everyday life or commonplace situation for instance a representative school, a typical urban neighbourhood etc. Single case study design can be suitable in a situation when investigator has an opportunity to observe and analyze a phenomenon previously inaccessible to scientific investigation, called a revelatory case.

The fifth rationale for single case study is longitudinal case. Here the researcher intends to study the same case at two or more different points in time to measure the changes. The temporal dimension of case studies was elaborated further by Thomas (2011), as is described in the next paragraph. Single case studies can also be a pilot for a multiple case study design. These studies have to be carefully designed to investigate all aspects and avoid misrepresentation. De Vaus (2011) suggested that “limited access to cases or the extreme nature of the case may mean that we can only study a single example” (p.226). Single case studies may be used to study the most critical phenomenon in detail. According to de Vaus (2001) single case study can be “appropriate when we have clear theory with well formulated propositions and we have a single case that meets all the requirements of the theory” (p.227).

Thomas (2011) divided single case studies into retrospective, snapshot and diachronic. Retrospective case study aims to collect data about past event or phenomenon. Researcher wants to uncover the issue or event of past by collecting documents, registers or archives. Interviews with the individuals who have experienced the situation can also be a valuable data in this case. Retrospective design “involves collecting, on the one occasion, information relating to an extended period” (De Vaus, 2001). It involves collecting documents, records or conducting interviews with the individuals having empirical information. This process aims to reconstruct the historical events. De Vaus (2001) discussed another design called “prospective” in which investigator look forward to track changes over time. The selection depends on study objectives under investigation.

To study a case at one time period for example a month, week, day or an hour is called snapshot case study. A researcher considers the importance of time while collecting the data for example “one day in the life of Ivan Danisovich” in literature. These studies usually are illustrative, descriptive and analytic, observer presents “analysis of the interconnections between parts of the narrative” (Thomas, 2011, p. 147). In contrast to snapshot, diachronic case study shows change over time (longitudinal case study mentioned by Yin, 2003). This type proceeds to discover the change, impact or any difference in the situation under study. The study also attempts to measure cause and effect relationship between two or more variables.

There may be important subunits within a case that merit some individual investigation and analysis, in order to gain insight into the case as a whole. Thomas calls this a nested case study; it is also called embedded study by Yin (2003) (see Figure 3.5). This study focused on the subunits of a case, how they are connected with each other and the whole. Yin (2003) says that a “case study may involve more than one unit of analysis”. Thomas (2011), when describing nested studies, notes that “the breakdown is within the principal unit of analysis”.



*Figure 3.5: Nested units within case*

From “How to do your case study: A guide for students and researchers”, by Thomas, G., 2011, p. 153, London: Sage.

In multiple case studies the “focus is unequivocally on the phenomenon of which the case is an example: the focus is on the object” (Thomas, 2011, p. 141). This design has also been called collective, comparative, cross-case analysis or multisite case studies in literature (Thomas, 2011; Merriam, 2009). Each case in multiple case designs has its own position and purpose to illuminate. “This type of study involves collecting and analysing data from several cases” (Merriam, 2009, p.49). In these studies, the

aim is replication, by conducting a second, third or more experiments, sometimes by keeping the situation same or sometimes by altering some situation to see the commonalities and differences in the findings (Yin, 2003). Single case studies are conducted to investigate a critical/particular example of something or researcher has restricted access to cases (De Vaus, 2001). When the researcher is particularly interested in studying a phenomenon/situation/population not a specific case, multiple case studies are usually practiced. This design stressed to study individual cases as ‘whole’ and report individual and multiple case findings. Multiple case findings report should focus on why particular things occur in one specific case and not in other cases. The Figure (3.6) below shows the process of conducting multiple case studies. Each case should have significant standing and must have complete report. The last step of the process shows the theory building process based on cross case analysis and suggests policy implications.

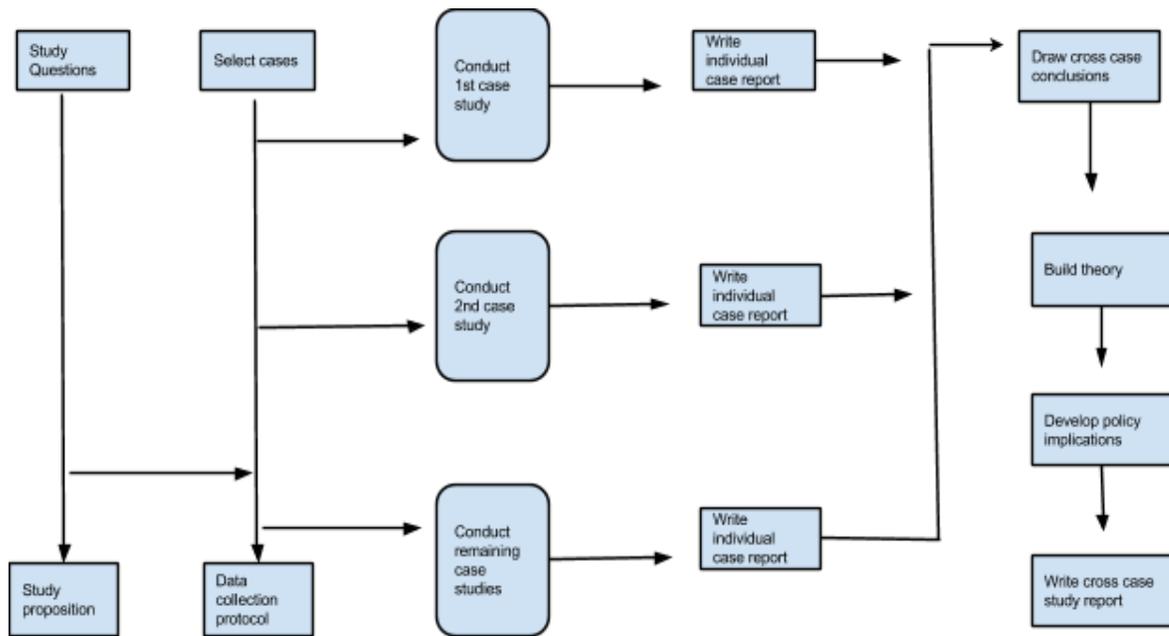


Figure 3.6: Multiple case study method

From “Case study research design & methods” (3rd ed.), by Yin, R. K., 2003, p.50, London: Sage.

Thomas (2011) suggests two forms of multiple case studies such as parallel and sequential. In parallel design all cases are investigated at the same time. All the cases occur at the same time, data collection, analysis and report writings also run in parallel. In contrast, in sequential design cases are studied one after the other. The assumptions and findings of one case may be taken into account before studying the other cases. The replication of logic may change or modify for cases in sequential order. This means that when you proceed to the next case you may modify your data collection approach based on the

experience of previous case. The advantage of sequential design is that problems can be identified in earlier cases and can be resolved in later cases. New ideas emerging from one case can be applied to later cases in the process (De Vaus, 2001).

#### ***3.6.4.1 This study's process***

The present study adopted multiple nested sequential case study design. Yin (2003) claims that multiple case studies have more advantages than single case study. He supported that findings from multiple case design are more powerful and increase the chances of generalizability. Even if two cases are studied, they represent varied contexts, strong assumptions and more generalized findings. While discussing the importance of multisite case studies Merriam (2009) says that this design enhances the external validity or generalizability of findings. Single case studies are more vulnerable than multiple case studies. Single case studies should be more holistically and rigorously designed to prevent skepticism. De Vaus (2001) suggests to use multiple case study design when no, or very weak, conceptual frameworks exist in literature. In the present situation the literature reports very few aspects of IL practice in Pakistan specifically in schools (Bhatti, n.d.; Bhatti, 2010; Kousar, 2011; Batool & Khalid, 2012). De Vaus (2001) argued that multiple case studies are more convincing, strong and provide more understanding. To make IL theoretical framework and assumptions strong and convincing in Pakistan, the researcher selected multiple cases design for the present study. The researcher's previous experience of investigation in schools (Batool & Khalid, 2012) identified a lack of research culture in Pakistani schools. Therefore, it is decided to choose multiple case studies design due to limited access to schools. The researcher assumed that in single case, she may could not get full access to all aspects of the IL situation, therefore the multiple case design was considered appropriate.

**Process:** Multiple case studies

**Nested:** Study subunits within each case (also called embedded)

**Sequential:** Case studies happen one after other

Multiple cases methodology was nested for the present study. To gain more in depth understanding of the cases, researcher also studied the subunits within each case. This is also called embedded. To get a full picture of a larger unit it is necessary to collect information about its embedded units (De Vaus, 2001). Information taken from many levels may portray the situation clearer and holistic. In a school setting, the nested units could be documents (curriculum, worksheets etc.) and actors (teachers, school children etc.).

As the researcher was intended to study IL practice so the most suitable nested units were selected after discussion with supervisors, primary school teachers and reviewing curriculum. To study different units, different data collection and analysis techniques were applied. This decision was although affected by the amount of data collection access but the researcher studied many nested units directly related to IL practice (for example related curriculum documents, chapter 4; Teachers including teaching environment & methods, chapter 5; role of librarians & library as place, chapter 6; participants' children's information behaviour, chapter 7). The appropriate selection of subunits directed the present study to investigate exact, in depth and clear IL picture in selected primary schools of Lahore, Pakistan.

The study followed the sequential case study design to conduct multiple case studies (see Table 3.5). In this design case studies happened one after other. This design facilitated researcher more than parallel studies design; this was helpful in solving many puzzles that happened in the first case study. This process provided an opportunity to apply emerging ideas and make modifications to the next case study. Due to poor IL theoretical framework in Pakistan the researcher needed more flexible research method to direct the study in right direction. De Vaus (2001) supported the idea to use sequential design for inductive, theory building approach rather than parallel design. Bogdan and Biklen (2007) also encouraged data collection from one site at one time, rather than simultaneously, to avoid confusion and to define parameters for subsequent case studies (as cited Merriam (2009)).

Table 3.5: Present study's research design

Subject	Purpose	Approach	Process
Local knowledge case 	Intrinsic  Exploratory 	Interpretative  Building a theory 	Multiple    Nested  Sequential

Note. From "How to do your case study: A guide for students and researchers", by Thomas, G., 2011, p. 93, London: Sage.

### 3.7 Data Collection Methods

The data for the present study was collected from multiple sources: interviews, focus groups, analysis of related documents, pictures, task based activities and observation. Many case study authors (Yin, 2003; Eisenhardt, 1989) emphasized the importance of using a variety of evidences to enhance the quality of case study. To assess the situation completely, it is important to use a variety of data approaches such as documents, interviews, policy documents, observation etc.

For the present study the data was gathered from teachers through interviews, from school children through focus groups and task based activities. Also observation method and field notes were used to supplement other findings. Also related documents for example curriculum, classroom worksheets and pictures were analysed to see holistic picture of the situation. The Table 3.6 shows the present study's varied data sources, the method of collecting data and the study objective achieved through these sources and methods.

Table 3.6: Data collection methods and data sources

Data Sources	Methods	Study Objectives
Teachers	Interviews (11 interviews of length 20-25 mins.) Audio recorded	To explore IL instruction in teaching and classrooms; To inspect problems
Librarians	Interviews (2 interviews of length 20-25 mins.) Audio recorded	To know library IL practice and role of librarian
School children	Focus groups (12 Focus groups of 3-9 Children of length 16-25 mins.) Task based activities	To analyze the students' information behavior and examine IL skills
School, Classroom, Library environment	Observation	To examine related aspects of IL practice; To identify problems
Curriculum documents, classroom activity sheets, pictures	Analysis	To examine related aspects; To identify problems

#### 3.7.1 Interviews

An interview is a thoughtful conversation with purpose and used to gain in depth insight of the phenomenon (Crandall, S. J. S., 1998). Interviews are usually conducted to seek qualitative data (Pickard, 2007). The interview is a flexible data collection tool to allow participant to reconstruct the past, describe

the present and share future predictions. Yin (2003) claimed interview is one of the most important information sources. He further described case study interviews are open ended in nature. It also allows the researcher to observe the participant's surrounding and nonverbal actions. Thomas (2011) classified interview into three forms such as structured, unstructured and semi-structured. In a structured interview the researcher follows a list of pre-determined questions. The second type, unstructured interviews, are ideal for case studies; the researcher's job is to listen and facilitate the participant. In fact, the participant decides the direction and flow of conversation about the topic. The middle situation of both is called semi structured interviews, in which the participant has freedom to speak within a structured schedule. The interview schedule is just a reminder to cover all the points of topic.

### *3.7.1.1 Interview procedure*

The present study used semi structured interview technique to collect data from teachers and children. The semi structured interviews were used to give direction to participants and keep them on track as the given interview time was short. Since the teachers were not aware of IL terminology, it was necessary to ask some questions which relate to IL practice in simple terminology. It was also important to keep children on track by asking explanatory questions during focus groups. As the nature of the study is exploratory, this technique helped to collect in depth contextual information. One to one face interviews were conducted with teachers to know their teaching methodology within the classroom. Classroom activities and homework assignments were also discussed in detail to know the presence of IL content in them. This flexible interview technique helped to know teachers' IL understanding and perceptions. The researcher acted like a facilitator to make the participant talk on a given topic. Interviews were audio recorded as per school policies and permission allowed (Appendix 1).

Before conducting interviews, informed consent was acquired from all the teacher participants (See Appendix 1). They were also verbally briefed about the purpose of conducting interviews and about the anonymity of data. Overall 11 interviews of length 20-25 minutes were conducted with teachers and audio recorded (interview questions are attached in Appendix 3). From case two, the data for teachers is missing as this school did not allow the researcher to interview school teachers. When researcher initially visited this school for seeking permission, they allowed collecting data from both groups. However, on the decided day of data collection, they did not allow teachers' interviews. But researcher was successful in collecting rich data from school children and through observation and field notes.

The data was collected during the months of March-May, 2014. After seeking permission from head teachers/principal for data collection, one specific day was decided for each school. On the decided day, the researcher visited each research site and collected data personally. The interviews were conducted outside the classroom area (corridors), porch and play room. It was done so that teaching within classrooms would not be disturbed. Only two schools (case three and six) had librarians, interviews were also conducted with librarians of length 20-25 minutes. The teachers were asked about their teaching methodology and practice in terms of IL instructions. The librarians were interviewed about their role and library services in connection with information literacy practice. The interview questions are attached in Appendix 5. To let them talk on relevant things in detail, the researcher did not interrupt, however asked “why” and “how” questions. The more “why” and “how” were added after conducting pilot study as discussed in section 3.7.5.2 (Appendix 4).

### *3.7.1.2 Group Interviews/Focus Groups*

The literature reported little work on data collection methods of children (Spratling, Coke & Mminick, 2012). Studies confirmed that children are able to describe and recall their personal experiences (Spratling, Coke & Mminick, 2012; Christian, Pearce, Roberson, & Rothwell, 2010; Davis, 2007). The technique described by these researchers is to make the child relax, playful and create a friendly environment. Group interviews are mostly encouraged to decrease child anxiety and fear of unknown people (Spratling, Coke & Mminick, 2012). Christian et al. (2010) presents the content analysis of innovative strategies used to collect data from children and adolescents. Similarly, Spratling, Coke & Mminick (2012) identified the themes from qualitative studies that used interview techniques to collect data from children.

Table 3.7: Themes from qualitative studies that used interview techniques

Themes	Interview techniques
Getting to know me	Establishing rapport: Talking with the child about what is important to them
Every picture tells a story	Adjuncts to interview to develop rapport and enhance data: Journaling, Pictures and photographs
Helping with the jitters	Methods to decrease anxiety in child participants: Group interviews, Location
I may be young, But I can tell you about me	Ages of child participant: Children as young as 4 years can participate, School age children
To be or not to be	Parental presence: Parents may be present, or given the option of whether or not to be present in child's interviews
I don't want to play	Allowing the child the choice to participate: Child participation in consent process and given assent Recruitment of child participant Time investment by child participants and their families

Note. From "Qualitative data collection with children", by Spratling, R. , Coke, S. & Minick, P., *Applied Nursing Research*, 25(1), p. 48).

Davis (2007) clarifies that children can communicate very well but due to dominance of adults in our society, they feel less confident. From a content analysis of seven quantitative, qualitative and mixed method studies Christian, et. al. (2010) discovered successful creative and developmental data collection strategies used with children and adolescents. It has been suggested by them that individual interviews, group interviews, creative thinking, creative play and incentive strategies can be used as significant data collection tools. It is important to establish connection with the children for significant research outcome (Spratling, Coke & Minick, 2012). The process of interviewing children requires rigorous pre-testing, appropriate question language and question creation (Weber, Miracle & Skehan, 1994). They further elaborated that questions should not use out dated slang and questions which are framed for adults should not be asked of a child (like your social status/class). Interview questions should be simple and open ended, the inquirer should not force and interrupt a child during the interview to give a specific response.

For the present study, group interviews/focus groups were conducted to examine school children's information behaviour and information finding activities. Group interviews were selected as this technique allowed children to decrease their anxiety and soon they become familiar with the researcher during the process. This process also allowed children to be confident and they were able to describe and recall their experiences best. It is significant to conduct child's group interviews at familiar places like homes, schools etc. (Spratling, Coke & Mminick, 2012). Therefore, it was decided to conduct group interviews within schools, a familiar place for all participants.

### ***3.7.1.3 Focus Group procedure***

Informed consent was acquired from school teachers on behalf of participant children (Appendix 2). The researcher knew the research culture in Pakistan that permission is not asked from participants or parents (in case of children) formally. When this matter was discussed with school staff, they said that majority of parents are uneducated and they will never understand or return the permission form. They suggested to the researcher, that class teachers will sign the consent form on behalf of children. The present study also got ethical approval after explaining the different research scenario in Pakistan (See Appendix 7). To know school children's (5-7 years in age) information behaviour 12 focus groups (3-9 children) of length varying from 16-25 minutes were conducted for grade one and two students from each school. The researcher also explained the data collection process in simple terms to the children at the start of each focus group. The teachers from each school, selected a group of 3-9 school children to take part in the present study. It was done because teachers were much more familiar with their

students than the researcher and could select those children who can talk confidently. The presence of teacher during focus group could help more to decrease a child's anxiety. However, the teachers were busy in their teachings, so they preferred to send the participant children outside the classroom with researcher. The group interviews were conducted within the school, however outside the classroom area, in corridors, play grounds, porch and play room.

In order to develop a friendly atmosphere, the researcher declared herself as friend of them and presented them some stationary items (story books, pencils). In case study one, the researcher distributed chocolates among the children, however, one teacher mentioned that some children could be allergic to chocolates. Therefore, it was decided to give stationary items instead of edible things on the following research sites. During group interviews children were asked about their information behaviour and discussed any experience of information searching/organizing/presenting and evaluating. The interview questions are attached in Appendix 6. The role of researcher was more listening than talking, however, it was necessary to keep them on track by asking relevant explanatory questions (why, how). As the researcher is also a mother of almost same age children, simple and common terminology was used during group interviews. The participant children were much interested to talk about their personal likings, family stories and experiences; it was a big challenge to make them talk on relevant things. The researcher also faced a problem when in a group some children were more talkative specially girls than others. It was attempted to involve all children in a group by pointing to quiet children repeatedly to encourage them to contribute.

### **3.7.2 Task based Data Collection Methods**

Some researchers claim special research methods for children, some believe that methods should be the same for adults and children. Punch (2002) claims that research methods should be different for children because they are under adult control and experience limited power. It is difficult to understand the world from the child's view through traditional methods.

Table 3.8: Why Children are different from adults in research?

Children may have a different way of viewing the world.
Children are used to trying to please adults, and may fear adult reactions.
Children may have limited vocabulary and use different language.
Children are more used to visual and written techniques at school and may have different competencies.

Note. Text from “Research with children: The same or different from research with adults?” by Punch, *Childhood*, 9(3), pp. 326-327.

It is therefore recommended to use innovative and task based methods to make children comfortable and confident (Punch, 2002). For the present study, it was found appropriate to use drawings, worksheets etc. to make children at ease during data collection. Punch (2002) also recommended to combining traditional methods with innovative techniques. “Images communicate in different ways than words” (“Doing visual research”, 2008). Therefore, it was decided to combine several techniques (innovative & traditional) for the present study.

Some task based activities were adapted from literature (Irving, 2010; Ryan, J. & Capra, S., 2001) and modified to use in local context to examine the school children’s IL skills. Irving (2010) was very influential in identifying and integrating different aspects of IL activities (finding and using information, organizing information, understanding, analysing and evaluation) in Curriculum of Excellence, Scotland. Most of the activities were adapted from information literacy toolkit (Ryan, J. & Capra, S., 2001), these were specially recommended for grade one and two children to build their IL skills. Ryan & Capra’s (2001) work was very useful in giving practical ideas for the task based activities. It was attempted to select activity from literature that is representative of all six basic IL skills (finding, organizing, recognizing, understanding,

using, and presenting information) at grade one and two educational level. Therefore, six task based activities were adapted and used with participant children. The subsequent analysis of teacher guides (provided by government) (section 4.7.2, chapter 4) revealed that similar activities were recommended to grade 1 and 2 teachers. For example, students should be taught, how to identify the book title, how to apply thinking strategies in order write sentences about the given picture and prediction of stories and making sequence of different parts of the stories.

After conducting focus groups, the participant children were asked to perform task based activities. Before doing this, it was explained to the children that it is not a part of their school work or examination and they are free to refuse any activity, if they do not wish to perform. The participant children enjoyed performing these tasks and become more friendly with the researcher. In a group each child asked to choose any activity sheets, he/she wanted to perform. However, a few children refused to perform some activity tasks. It was attempted to make this process flexible, therefore children were allowed to leave whenever they want. Some children, especially from case six, wanted to attempt all tasks; they were allowed to do so.

### *3.7.2.1 Using information activity*

Drawings can be fun and modified easily by children and give them more control on their creations (Punch, 2002). Scottish Curriculum for Excellence early and first level, information and critical literacy content states that “As I listen or watch, I can identify and discuss the purpose, key words and main ideas of text, and use this information for a specific purpose” (Irving, 2010, ppt. 6). This activity helped researcher to determine the child’s ability to use information properly. It was attempted to identify that after reading a piece of information, are they able to use that information for a specific purpose or not?

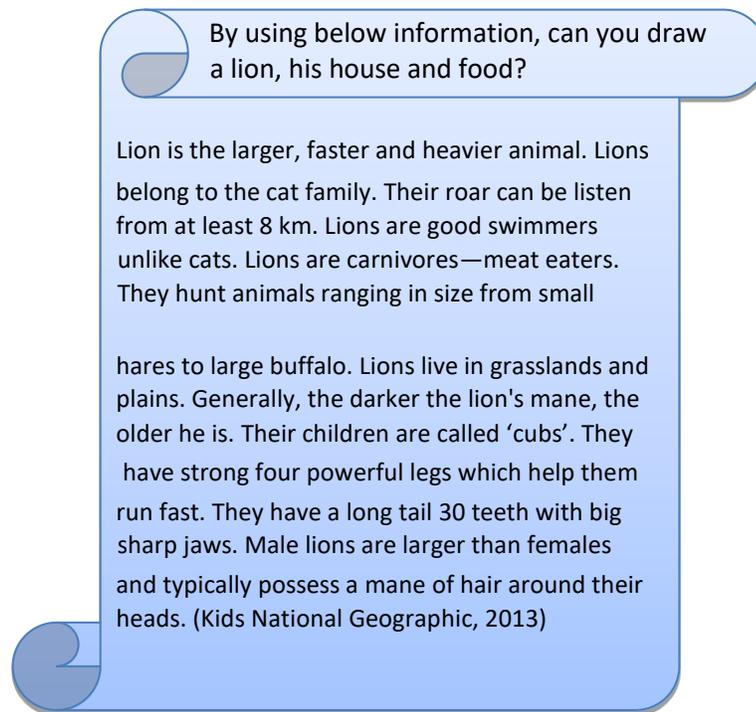


Figure 3.7: Using information activity sheet to check child's ability

Text from "Lion Fact file". Retrieved from <http://kids.nationalgeographic.co.uk/kids/animals/creaturefeature/lion/>

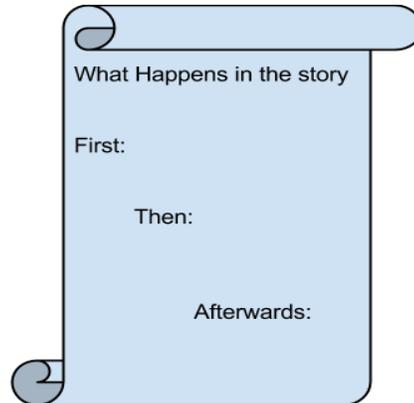
In this activity, participant children were asked to read the given information (Figure 3.7) and draw a lion, his house and food. For those children who were not able to read, the researcher read all the text and translated it into local language for convenience. Only those children who were confident about their drawing skills, attempted this task.

### **3.7.2.2 Organizing and Arranging Information activity**

Story telling method has been widely used in case studies (Davis, 2007). Davis's (2007) study findings claim this method is very revealing and credible for children. In this activity the researcher told a story to children and then asked them to organize what they have listened to on a given worksheet (Figure 3.8).

Punch (2002) suggested the use of worksheets to obtain more detailed information from children. This activity helped the researcher to know about their arrangement and organization of ideas, events and facts. Irving (2010, ppt. 6) states that IL content in school curriculum should enable them "to select ideas and relevant information, organize these in a logical sequence and use words which will be interesting and

or useful for others”. Analysis of this worksheet further helped the inquirer to know about children’s information organizing and arranging skills.

The image shows a worksheet designed to look like a scroll. At the top, it says "What Happens in the story". Below this title, there are three distinct sections for organizing a story: "First:", "Then:", and "Afterwards:". Each section is separated by a vertical line, and the text is centered within each section. The scroll has a rolled-up top edge and a small circular detail at the bottom left corner.

*Figure 3.8: Organizing information and arranging activity*

From “Information literacy toolkit: Grades Kindergarten-6”, by Ryan, J. & Capra, S., 2001, p.114, London: American Library Association.

In this task, first researcher told a small story to participant children. The researcher brought some personal story books at research sites to share with participants. The selected stories were in both Urdu and English languages and were suitable for grade one and two. The researcher then, asked children which story they would like to listen to? The most preferred story was shared with them and then they were asked to fill the activity sheet (Figure 3.8). Some students especially in case six asked researcher that can they fill this activity sheet for any story they read before. The researcher allowed them to do this in order to make them comfortable. The children had to organize the attended story in three parts: what happened first, then and afterwards. The purpose of this activity is to examine participant children’s information organizing and arranging skills.

### ***3.7.2.3 Finding specific information parts of a book activities***

Some of the task based activities (Figures 3.9, 3.10 and 3.11) were adapted from literature to examine children’s ability “to know about the different parts of information sources and how can they find specific information through these”? Learning to locate relevant information is a very important step in information literacy teaching. It enables the child to locate text, audio/video, numbers and electronic information from different sources. Irving (2010) states this ability of student in this way that “using what

they know about the features of different types of texts, they can find, select, sort and use information for a specific purpose”.

Figure 3.9: Recognizing book parts or features of texts

Adapted and modified from “Information literacy toolkit: Grades Kindergarten-6”, by Ryan, J. & Capra, S., 2001, p.74, London: American Library Association.

In this task, children were provided with different books and then they were asked to fill the sheet (Figure 3.9). They were asked to choose any favourite book from their own books or the books provided by researcher. They had to identify the book parts (author name, title, spine label) and draw front page image of selected book. Only a few children performed this activity. The participant children also had to mark on yes/no options after identifying book parts which help them in finding specific information (index, contents, glossary) from the given book (Figure 3.10).

**Does this book contain?**

Index	Yes/No
Contents	Yes/No
Glossary	Yes/No

Figure 3.10: Recognizing book parts or features of texts

Adapted and modified from “Information literacy toolkit: Grades Kindergarten-6”, by Ryan, J. & Capra, S., 2001, p.104, London: American Library Association.

To further examine children’s skills of finding specific information from print sources, they were asked to make index of different important words from the given book and write page numbers accordingly. The

researcher explained the task and provided detailed instructions in Urdu language where needed. This activity was less performed by the participant children (Figure 3.11).

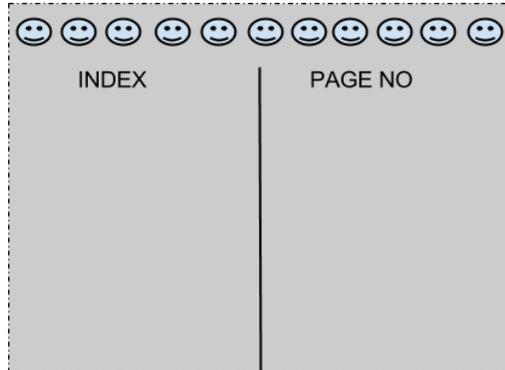


Figure 3.11 Specific information finding activity that how he/she can find specific information from printed text

Adapted and modified from “Information literacy toolkit: Grades Kindergarten-6”, by Ryan, J. & Capra, S., 2001, p.89, London: American Library Association.

#### 3.7.2.4 Understanding of purpose and main ideas of information activity

Using range of methods for data collection from children would be interesting and innovative, they will respond actively and confidently (Punch, 2002). Video group techniques are successfully used to find out child’s ability of creative thinking (Christian et al., 2010). This activity was designed with aim to know “child’s understanding across different areas of learning, can he/she identify and consider the purpose and main ideas of a text” (Irving, 2010, ppt. 7). The main purpose of this activity was to explore the child’s skill to present and evaluate information sources. It was decided that after showing a video clip, child would be given a worksheet (Figure 3.12) to fill in with his/her ideas and perception about the video clip.

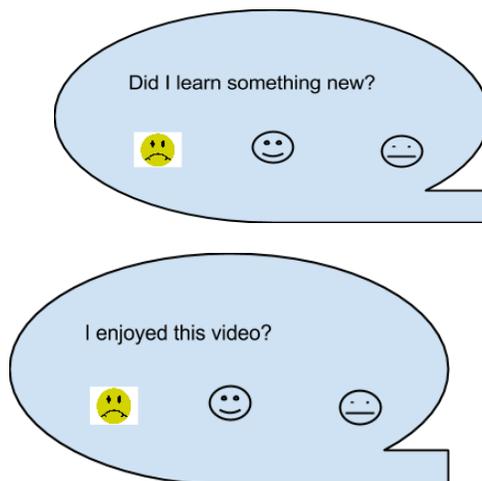




Figure 3.11: Information understanding that can he/she identify and consider the purpose and main ideas of a text/audio/video

Adapted and modified from “Information literacy toolkit: Grades Kindergarten-6”, by Ryan, J. & Capra, S., 2001, p.178, London: Ame

This activity with video clip was not possible as some schools did not have this facility and some schools did not allow due to time limitations and classes schedule. The researcher on the site decided to perform this activity with the story told by the researcher in an earlier activity. The children were asked that think about that story which you heard in previous activity or about any story they read before. Then they had to present their understanding and feelings about the information (story) (Figure 3.12).

### 3.7.2.5 Presenting information activity

This activity allowed the child to present information the way they think about something. It is very important to know child’s view of the world, this activity allowed the researcher to study their view points and how they think and present information, image, video, audio etc. Spratling, Coke & Minick (2012) encouraged the use of pictures and photographs as a technique for collecting data from children.



Look at the picture tell what you think about it or write comments on the paper.

Figure 3.12: Sad, lonely cartoon boy

Retrieved from <http://www.dreamstime.com/royalty-free-stock-photo-sad-lonely-cartoon-boyimage20602205>

(Idea from “The Scottish information literacy project: working with partners to create an information literate Scotland”, by Christine Irving, 2010 [Power Point slides], from <http://www.slideshare.net/cirving/begin-at-the-beginning-information-and-critical-literacy-in-curriculum-for-excellence-early-first-level-nursery-primary-schools>)

The participant children were provided with this activity sheet (Figure 3.13), in which they had to look at the picture and write their comments on the sheet that what they think about that picture. The researcher instructed the children to look at the given picture and write their comments on the place given in the sheet. The majority of participants attempted this activity. Those children who could not write, told researcher verbally that what they thought about the picture (and this was captured in field notes).

### **3.7.3 Documents & Pictures**

In producing case studies documents can also be used in combination with other methods (Yin, 2009). It is significantly different to analyze data obtained from people and data obtained from documents, many programs are available but Thomas (2011) asserts that self-evaluation is better than all processing programs. In some case studies documents provide main evidence and in other cases provide passing relevance (Yin, 2009). Documents ensure researcher to study words, numbers and language used by the participant or organization. These are written evidences and can be accessed anytime: an obtrusive source of information (Creswell, 2009). Documents may be public files, service records, organizational records, personnel records, maps, charts, survey data, letters, emails etc. (Yin, 2009; Creswell, 2009). For present study useful interrogating documents were curriculum documents, classroom and homework worksheets and assignments given and guides used by the teachers.

The researcher also collected some documents (Appendix 10) for example classroom sheets from teachers during and after interviews. It was asked from teachers to show any classroom material, they used related to information finding exercises. Some teachers showed examples from their teacher guides and researcher took pictures of those with permission.

The researcher also used grade one and two curricula (Appendices 12, 13 and 14) of public schools as data instrument. These documents were available online and from library. These were collected in order to see its connections with information literacy content (Appendix 11). The list of collected documents is attached in Appendix 10 and the checklist of document analysis is in Appendix 11. The researcher used documents as evidence in Chapter 4, as well as in analysing the case studies.

To evidence school learning environment, researcher also took pictures of classrooms, playrooms and library where school staff allowed. However, pictures of those research sites are not available where school staff did not allow.

#### **3.7.4 Observation and Field Notes**

As case study encourages use of multiple sources of evidence and data collection in a natural setting, the case study researcher has the opportunity of direct and participant observation. Yin (2009) states that observation techniques assume that research is not purely historical and some situation can be observed as evidence. Thomas (2011) classified observation into: structured and unstructured observation. In structured, the researcher observes a particular behaviour, and in unstructured, the inquirer watches informally to know “what is going on” (p. 165).

Observation technique provides additional evidence about the topic (Yin, 2009). This method gives the opportunity to study participants’ nonverbal behavior and to make notes of those events which are treated as unimportant by the participants (Kawulich, 2005). Kawulich (2005) also points out that observation allows to study those events which participants are not willing to share with researcher. To build theory/model from case studies taking field notes are very important feature (Eisenhardt, 1989). She further stressed to write down whatever happens during the field.

In participant observation, researcher may take a wide range of roles within case study and actually participate (Yin, 2009). Direct observations may involve observing meetings, events, classroom, shopping mall etc. The objectives of the present study support both direct and participant observation in a natural setting.

The observation was the part of interviews and group interviews. The researcher also observed school environment, learning places and overall infrastructure where researcher was allowed. For example, during task based activities researcher observed children as teacher assistant and took field notes. This allowed observation of children’s behaviour and nonverbal expressions. Direct observation was practiced in classrooms, at data collection places, and in library to see environment and to study students’, teachers’ and staff behaviour. For example, during interviews with teachers, researcher asked to visit class rooms to observe some IL related material. During task based activities, inquirer also observed children’s information seeking behaviours.

Table 3.9: Some Field notes examples

<b>Some examples of field notes</b>
In case 3, children focus group, the teacher is interrupting and telling children to say very positive about teachers and schools.
The participant children of public schools are very quiet, less confident and obedient.
The participant children are able to tell verbally that what the picture is about during ability to present information task activity.
The participant children were copying each other responses during focus groups and drawings in task based activities.

### 3.7.5 Pilot Case or Case Six

Pilot studies are referred to as small scale studies used to pre-test the research design and tools. These studies can also help in designing research protocol and to check the effectiveness of the research plan. Yin (2003) claims that pilot case may be selected for many reasons within case studies. Pilot studies assist in the selection of the final cases in terms of accessibility, being geographically convenient and having sufficient amount of data. The pilot study can alert the researcher about the risks in the research design before conducting planned research. Usually, pilot studies are directed towards the large scale studies to pin point the major faults of the research design.

To keep in mind, the benefits of the pilot studies, it was decided to conduct pilot before going to the original study design. The pilot study was conducted in the first half of 2014, and a pilot school case was selected which was approachable and convenient. In general pilot case can be selected on the basis of access and convenience (Yin, 2003). The nature of inquiry for pilot case was exploratory and focused on

collecting qualitative data for understanding the happening of phenomenon. An elite class private school located in high economic area of the city was selected for pilot study.

#### ***3.7.5.1 Pilot Study Procedure***

It was first decided to interview 5-7 years children's class teachers and to conduct focus groups with children. The researcher discussed the study aims and objectives with one of the primary school teachers at the research site and she suggested interviewing English language teachers as there is more provision in this subject to integrate IL instruction. The researcher got permission from the person in charge of that school branch to conduct the pilot. The school staff were very cooperative in this regard although cautious that children of 5-7 years are very young to start these kind of skills.

The interviews and focus groups were semi-structured in nature to collect in depth contextual information. The duration of the teachers' interviews varied from 20-25 minutes. The participant teachers school schedule was very tight and during their free time they had to do many other activities such as checking students note books. Initially 10 interview questions were planned (See Appendices 3 and 4). These teachers referred the researcher to interview a library teacher and this library teacher further referred towards a computer teacher. Library teacher was nonprofessional and her role was to organize library and conduct library hours for all grade levels. Thus, finally three interviews with teachers, one with library teacher and two focus groups of 6-8 girls of 5-7 years were conducted.

The focus groups also lasted for 20-40 minutes for each grade level including talk with children and later they were asked to fill in some activity sheets. These sheets were adapted to examine child's ability to use information, to organize and arrange information, to recognize different parts of books, to find specific information and their understanding about the purpose and main ideas of information (section 3.7.2). As the library teacher was unable to provide audio-visual facility, therefore, researcher changed the plan and asked all participant children to fill in related activity sheet with the information of library books, they were holding in their hands. The sheets were designed to check child's ability to find specific information and to recognize different parts of the book (Figure 3.9 and 3.10). The audio recorded interviews were transcribed and analysed using Nvivo 10 and MS Excel.

#### ***3.7.5.2 Learning from Pilot Case***

The pilot results helped the researcher in selecting teacher participants. It was found in pilot study that English Language, Social Studies, Science, Computer teachers could be most resourceful to talk about IL practices. It was also decided that focus groups should be conducted after teachers' interviews to

reconfirm responses from school children. To get the holistic picture of the IL situation computer teachers and library teachers/library in charge were identified as worth adding as participants where available.

Furthermore, for the deep understanding of the situation, more why and how questions were added to the final interview guide. For example, “why do you not have an information finding exercise activity in your teaching?”; “why do you not encourage students to use the library?”; “Are there some students who engage more, why?” (Appendix 4).

### *3.7.5.3 Justification of including pilot as main study or case six*

There is an argument among social scientists whether pilot data should or should not be used in final study. Some argue that the data should not be reported as there could be inaccuracies in conducting research methods and some major changes could be applied afterwards to the final study. Also there is a problem of using same pilot study participants in the main study sample.

In exploratory qualitative studies, the pilot studies are usually not necessary depending upon the design of the research. Teijlingen & Hundley (2001) argued that:

Qualitative data collection and analysis is often progressive, in that a second or subsequent interview in a series should be ‘better’ than the previous one as the interviewer may have gained insights from previous interviews which are used to improve interview schedules and specific questions. Some have therefore argued that in qualitative approaches separate pilot studies are not necessary (p.293).

Pilot studies are usually termed as mini versions of the full scale studies (Teijlingen & Hundley, 2001). However, during data collection process it was realized that pilot case participants were more in number than the participants recruited for the cases in the main study. Notably, four teacher interviews were conducted in pilot study. The pilot school administration was generous enough to help the researcher in collecting data and identifying relevant participants. They permitted flexible time to talk with the participants and allowed for capturing pictures, which was lacking in other cases. Although lessons learned from this case were also discussed in the previous section, no major changes were made in methodology. Therefore, due to many significant reasons, it was decided to include the rich pilot study findings in the main study as case six.

The significant reasons are:

- Different type of school (elite class private) from other selected schools

- Comprehensive data was collected
- Different and significant findings from rest of the cases
- Represented results of different geographic area (elite economic class) of the city
- No major change was made before carrying out case studies 1-5

### 3.8 Analyzing data

“Data analysis consists of examining, categorizing, tabulating, testing or otherwise recombining evidence, to draw empirical based conclusions” (Yin, 2009, p. 126). The analysis of evidences is most important and difficult part of case studies (Yin, 2009). Eisenhardt (1989) states this part is the heart of building theory from case studies. Most of the case study writers pave their larger attention on design and data collection techniques and least on analyzing data (Eisenhardt, 1989; Yin, 2009). There are a number of ways to analyze case studies’ data; however, Thomas (2011) suggested adopting a method which gives holistic analysis. For the present study, the researcher preferred to use Braun & Clark’s

(2006) approach to analyse data as it is flexible in terms of its application not theoretically bound like IPA (Interpretative phenomenological analysis) and grounded theory (Braun & Clark, 2006). It can be used with different theoretical framework to report experiences, meanings and reality of participants.

Yin (2009) suggests four general steps rather principals to analyze data:

1. Rely on theoretical prepositions and other strategies
2. Consider any analytic approach, using qualitative, quantitative or both Pattern matching, Explanation building, Time-series analysis, Logic models, Cross-Case synthesis
3. Explore rival explanations
4. Display data apart from interpretations

Yin (2009) states that the first step is to follow the study’s theoretical prepositions which would further shape data analysis strategies. Then develop descriptive framework of your study which will help in identifying causal link to be analyzed. The fourth strategy is to identify and examine rival conditions. The last step is less applicable on present study, since the researcher is not analysing quantitative data. Thomas’s (2011) work was very influential in recommending multiple ways to think about case studies data for example drawing story boards, the nuts and bolts (it helps the researcher to see different elements and to understand connections between them); using narrative (allows researcher to narrate the occurrence of events as they happen in a process); think drama (this method is suitable if the case study is

about people’s interactions, think it as play or drama) and being intuitive and imaginative. However, his work focused less on describing case study analysis methods. Therefore, the present study used a combination of thematic (Braun & Clark, 2006) and situational analysis (Clarke, 2005) approach to get the holistic picture of the situation.

### 3.8.1 Thematic analysis

This method of analysis is widely used in qualitative research due to its flexibility and usefulness. It is a core analysis method in qualitative research and develops foundational skills among researchers.

“Thematic analysis is a method for identifying, analysing and reporting patterns (themes) within data” (Braun & Clarke, 2006, p.79). Many similar approaches for example IPA (Interpretative phenomenological analysis), grounded theory etc. have theoretical connections with specific theories. Thematic analysis is popular and has thematic freedom. The present study used this approach for data analysis as it enables the researcher to find out meanings of realities, experiences, events and so on (Braun & Clarke, 2006).

#### 3.8.1.1 Stages of thematic analysis

Braun & Clarke (2006) provided a six stage step by step process to do thematic analysis. The present study followed the process to analyse interview and group interviews data.

Table 3.10: Thematic analysis stages of present case study

Stage	Present study’s description of process
<b>Familiarizing yourself with your data</b>	Listening audio recordings repeatedly Transcribing and Translating interviews, focus groups/group interviews Reading and re-reading for initial ideas Reading documents (task based sheets, curriculum, classroom worksheets) for initial ideas
<b>Generating first coding</b>	Nvivo 10 was used to code, manage and organize themes Transcriptions, task based activity sheets and pictures were imported into Nvivo Used inductive, bottom up approach of generating themes, data driven approach (coding without fitting into existing theoretical framework) Captured important data as code
<b>Searching for themes</b>	The first coding list from Nvivo was extracted to MS. Excel and a new column was added after coding list in order to develop broader implications (Figure 3.21) Similar studies were consulted, if they constitute themes, resulting 18 broad themes
<b>Revising themes</b>	A progressive process was followed which lead from descriptors towards interpretations and broader implications Resulting in 2 <sup>nd</sup> level coding with 7 broad themes Both programs MS Excel and Nvivo 10 was used
<b>Defining and naming themes</b>	After 2nd level coding, continuous reading, comparing and re-organization resulted in final 6 broader themes (1) Information behaviour (2) Children IL skills (3) Teachers’ Teaching Methods, learning attitude & training sources (4) School Libraries (5) Information literacy practice (6) Problems
<b>Producing the report</b>	The final themes were used in reporting results (See chapter 5,6,7)

The steps in the process for the present study are detailed in Table 3.10. All interviews of teachers, librarians and focus groups of children were transcribed. The interviews and focus groups belonging to case six were in the English language. However, other interviews and focus groups were in Urdu language as per the convenience of participants. The Urdu language interviews and focus groups were transcribed in English language to better present the findings in this language. The researcher is resident of the research site (Lahore city) and is familiar with teaching jargons and grade one and two children's commonly used words. As the researcher herself belongs to teaching profession and is mother of same aged children, did not find difficulty in translating into English language.

The audios were repeatedly heard and the researcher found that the majority of the participants used similar range of words and language style. The researcher decided to transcribe in English language, those (interviews/focus groups) were recorded in Urdu language. However, this process was carefully done by reflecting audios again and again. The participants specially children used very simple and easy language, therefore researcher did not face any difficulties in English translation. The quoted phrases in chapters 5,6 and 7 were carefully checked for language bias through iterative process.

The themes represent something important in data. The process of first and second level coding resulted in six main themes to report present case study (Appendix 9). Nvivo 10 and MS Excel were used to manage and organize categories which emerged. Figures 3.13 and 3.14 give examples of this process. In Figure 3.14, after coding (Column A), a column B was added to group the similar items in order to organize into specific categories. Through an iterative process descriptions of important data were transformed into more specific implications (themes). The final six themes were used to report the case study (Figure 3.15).

	A	B	C	D
1	Name		Sources	References
2	Activity based subjects	Activity based subjects	1	3
3	Children after school activities		0	0
4	coloring		1	3
5	Domestic work	Everday activities	2	2
6	Home tuition		5	5
7	Homework		5	10
8	Limited fun time		1	1
9	play		2	3
10	Quran reading		6	9
11	story books		1	3
12	watching tv		2	3
13	Children behaviour		0	0
14	copying each other		5	7
15	Disturbed children		1	1
16	independent	Children behaviour	4	5
17	independent computer user		3	5
18	limited knowledge of sources	Limited knowledge of sources	5	9
19	concept of story books		3	4
20	love reading		3	5
21	wish for library		2	2
22	Reflection of read stories	Children Reflection	6	8
23	weak understanding at school	children learning at school	2	2
24	Children information seeking	Children information seeking	0	0
25	Information search misconception		3	4
26	sources		0	0
27	books		3	5
28	elder brothers sisters		4	8
29	Environment		1	1
30	library		1	1

Figure 3.13: First level coding

Name	Sources	References
Children IL skills	0	0
Information Behaviour	0	0
Information literacy practice	0	0
Problems	0	0
School Libraries	2	4
Teachers' Teaching Methods, learning attitude & training sources	0	0
Teacher training	0	0
Teachers' attitude	5	5
Teaching Methods	1	1

Figure 3.14: Nvivo screenshot of themes

### 3.8.2 Use of Documents & Pictures

The documents and pictures were found very useful as additional evidence to represent the situation of information literacy in primary schools. To enrich observation results, the researcher took photographs and attached with field notes. The researcher took the pictures to further aid her memory. The taken photographs were used to analyse schools, classrooms and library learning environment.

The documents (for example curriculum, classroom sheets, teacher guides) were used in order to find any information literacy content used at grade one and two in selected primary schools. However, these additional evidences were not available in each case. Some schools did not allow photography and some schools (private schools) did not provide curriculum documents. The researcher made more field notes for

these research sites. Silverman (2013) states about these field difficulties “remember that the beauty of qualitative research is that it offers the potential for us to topicalize such difficulties rather than just treat them as methodological constraints” (p.222).

### **3.8.3 Cross Case Analysis**

The themes which emerged from all six selected cases were then cross analysed to see the connections, similarities and differences between them. The Nvivo program was used for this purpose and results are reported in chapter 9.

### **3.8.4 Situational Analysis**

While writing report for cross case analysis, the researcher felt that further analysis could be possible which will help researcher to see the present situation through different lenses and in model development. At the same time, researcher attended a conference in Aberdeen and a research seminar in Sheffield, where situational analysis was used and presented by researchers. The researcher was impressed with the flexibility of this process and the type of mapping used in it.

This methodological approach was introduced by Adele E. Clarke in the domain of the history of medicine and life sciences (Clarke, 2005). “Situational Analysis seeks to identify differences, variations, conditionality, and complexity. It can be used in a wide range of research projects using different data gathering approaches” (Sen, 2013). After reading and consulting with supervisors in detail regarding the suitability of this method for the present case study, it was decided to use situational analysis with themes which had already emerged through thematic analysis. To stimulate thinking for the development of model and to see the relations among the different elements of the collected data (themes), it was decided to apply situational analysis to see the big and holistic picture of the overall situation.

The philosophical positioning of this research is also consistent with the situational analysis. As discussed in section 3.4 in Chapter 3, this study adopted the social constructivism stance which aims to seek complete understanding of the situation. This paradigm focuses on studying the ‘whole’ of the situation/phenomenon/event. Creswell (2009) argued to get the deep understanding of the situation through qualitative analysis. This research also intends to highlight the multiple realities of the phenomenon within context. Similarly, the focus of situational analysis is beyond knowing only the subject and acquiring full of the situation (Clarke, 2005). The other forms of qualitative analysis lack “social” aspects which are grounded in research, therefore, situational analysis addresses social as well as salient discourses of the given situation (Clarke, 2005). To address the philosophical positioning of the present study, it was decided to look into the present situation through situational analysis.

Whilst the grounded theory approach to analysis did not seem appropriate for the present study, a grounded approach to data analysis was taken, in which the researcher was grounding coding and analysis in the data and looking for themes emerging from the data (rather than applying pre-existing frame working). This made the analysis amenable to further situational analysis. The emerged codes (most important elements) and the important elements observed by the researcher were used in initial situational mapping (messy map). The process started by creating what Clarke (2005) calls a “messy situational map” drawing on the existing themes (Figure 3.15). This analysis provided the opportunity of further analysing data in more holistic way, identifying key stakeholders and main connections between categories.

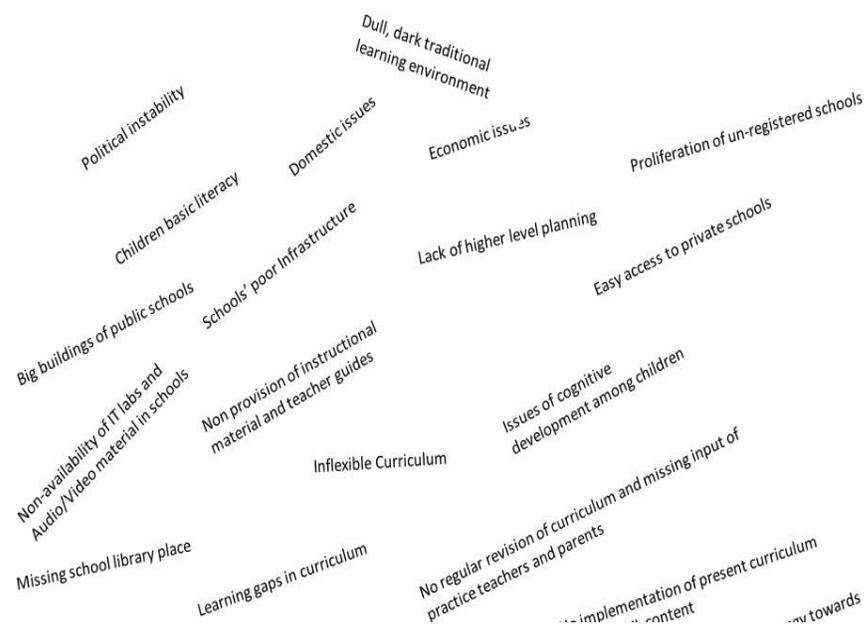


Figure 3.15: Messy situational map

The second mapping exercise (relational map) enabled researcher to build relationships among important relevant categories which identified in first mapping exercise (for details see chapter 9). This map connected different emerged categories with their main elements to provide a more precise picture of the overall situation. Some categories could not make connections in this mapping exercise. This practice also highlighted key issues, and important stakeholders which helped in model development.

The third exercise resulted in ordered situational map (Chapter9, Table 9.2). Clarke (2005) provided headings to develop the analytical table for the understanding of the situation. She said that these headings are very basic, one can make one’s own, which will vary depending upon the nature of the research.

Clarke (2005) also claimed that situational analysis can be used in a variety of research projects and supports researchers from heterogeneous backgrounds. Therefore, she provided very holistic headings structure to be fitted in a variety of research projects. For the present study, data was carefully compared with the provided headings, therefore, all identified categories and those observed by the researcher were well fitted to the suggested headings of Clarke (2005) (this process resulted in continuous discussion with supervisors). The process of revisiting the data using the headings revealed additional meaning, for example looking for "silences" brought to the researcher's attention the lack of mention of fathers' involvement in the children's learning and literacy. (see chapter 9, Table 9.2). There was nothing identified in some headings for example, key events in the situation, related discourses and other kinds of elements. The ordered situational mapping identified key human, non-human, collective human actors, non-human-actants, political economic elements, socio-cultural elements, silent actors, temporal elements and major issues of the given situation.

The last mapping exercise (social worlds/arenas map) (Chapter 9, Figure 9.12) allows to see the situation through different lenses and shows social and organizational perspectives. The resulted key human and non-human actants and key issues were then organized, which emerged five arenas, for example political arena, professional attitude arena, learning arena, home arena and socio-cultural arena. This mapping does not show all the factors in an arena but includes the most influential factors of a social world. These arenas have dotted porous boundaries, which allow arenas to overlap each other. This mapping exercise identified important arenas, in which each arena shows influential actors and key issues. This analysis allows researcher to see the situation through political, social, home and professional lenses. The analysis is discussed in detail with procedures and findings in chapter 9.

The rationale of the situational analysis was to highlight the different important factors of the information literacy situation in the selected primary schools of Lahore, Pakistan. This mapping exercise resulted in identifying human, non-human, social, cultural and political factors of the given situation. This contribution is unique as no previous study aimed to highlight the situated factors of information literacy in Pakistani context. This analytical exercise provided an overall overview of the IL situation and will be helpful for future researchers to look into these identified arenas in depth.

### **3.9 Reliability, Validity and Generalizability**

The issues of validity and reliability are very different in qualitative research. Case studies are sometimes criticized for lacking rigour and quality. However, the case study authors argue that same qualitative tests can be applicable to case studies (Yin, 2003; Thomas, 2011). In qualitative research validity means checking the accuracy of findings by using different sources of evidence (Creswell, 2009). The validity

refers to the accuracy and appropriateness of data collected (Mabry, 2008). To validate from the researcher's point of view, present case study employed multiple data sources: interviews, group interviews, documents, pictures and observation. All selected cases were analysed individually and then cross case analysis was made to further validate the findings. Among all the selected cases, five cases showed the similar patterns which validate the study findings. The observation method confirmed the testimony of interviews and focus groups. Similarly, the collected documents (for example classroom activity sheets) and pictures elaborate the given situation and add in evidence what was said in interviews and focus groups. The collected data was further discussed with supervisor and other PhD students who were involved in conducted case studies and other qualitative studies to check the sufficiency of evidence.

The researcher took some alternative decisions during field while collecting data. For example, in case two, on the decided day of data collection, the school staff did not allow teacher interviews. The researcher conducted focus groups in detail and task based activities with school children. The inquirer made strong observation and collected rich field notes.

The researcher had to conduct an activity with the use of audio/video material, however due to the non-availability of this facility in schools, the researcher decided to conduct the activity by verbally telling a story to participant children. By doing this, the researcher was able to collect similar data from all types of selected schools.

After conducting the pilot case, it was realized that no major changes were made in actual cases and only few explanatory questions were added to interview guide. The pilot case school was a different type of school (elite class private school) and researcher successfully collected data from this research site. It was also found that this case reported very different findings from the rest of selected school cases. These important points led this decision to include pilot case as sixth case study in the final findings of the present study.

Reliability is concerned with the consistent approach of the researcher across different data sets or different research sites. It relates with the re-occurring of themes across different case studies. This study used six research sites (schools) of different types to get more reliable results. The findings occurred in one case was further compared to all case studies in cross case analysis (Chapter 9). The similar connections occurring in all six cases were reported in chapter 9. The reliability was also achieved by maintaining clear documentation throughout the case studies. The case study database was managed through Nvivo software mainly. The citations were managed through Mendeley reference manager. Creswell (2009) and Yin (2003) argued that generalizations occur if more research sites (cases) are studied

and presented by using rich and thick descriptions of findings. Therefore, the results of the present study can be generalized to the same research settings. The present study involved different stakeholders (teachers, students, librarians) and different research sites (public & private schools) to get a holistic picture of the situation.

### **3.10 Ethical considerations**

The present study got ethical approval from University of Sheffield (See Appendix 7). The following ethical considerations were applied to the study:

- First of all, it is important to explain the different perspectives of considering research ethics in Pakistan and UK. There is also a conflict to get formal informed consent of the participants in academic setting. The researcher in Pakistan can work with informal consents of the participants or if inquirer is familiar with the people working in targeted organization. There is also not such practice in the country (Pakistan) of checking criminal records before entering to an academic institution for research.
- The researcher ensured the informed consent of the participants where applicable. The inquirer did not force the participants to participate in the study. She provided information as much as possible to the participant through information sheet and verbally. The participants were allowed to depart anytime during research if they do not wish to continue their participation.
- The researcher ensured the anonymity of participants' data. The personal data (if any) was coded and analysed anonymously for example Case1C2T. The data files were password protected and kept on personal computer. The files were deleted after discussion with the supervisor. The data was used for academic purpose only.
- The inquirer confirms that there was no physical harm involved throughout this research. The research was conducted in an academic setting for example school, which presumes to be safer than other places. The researcher obtained permission from school authorities before entering and conducting research to ensure safety.
- As this research involved children, proper measures were taken to avoid any mental and physical harm. For example, to avoid mental stress, group interviews including 4-5 children were decided on instead of face to face single interviews.

## **Chapter 4 : Cases Background: Pakistani Education System**

### **4.1 Introduction**

This chapter will present the background of the selected cases (primary schools) of Lahore city of Pakistan. To understand the present situation of information literacy (IL) in schools, it is important to discuss the context of Pakistani primary schools' education system, statistics and facilities (for example libraries) through a lens of literature. The chapter will present statistics of primary schools in Pakistan which will later help the study in making sampling decisions. In addition, this chapter will also highlight the important elements related to school teachers as they can play a crucial role in the implementation of IL program. In order to discover the role of related partners, the services of public libraries of city (Lahore) for children are also discussed. Additionally, to get the holistic picture of the situation the important documents (curriculum and teacher guides) are also analysed in relation to an information literacy model (PLUS).

The context discussed and analysed in this chapter is particularly important when the researcher decided to undertake situational analysis. The contextual information assembled from diverse sources is very useful as there was no existing document in literature in this regard. There has also been no previous detailed analysis of the primary school curriculum documents in relation to IL.

### **4.2 Pakistan's Education System**

Pakistan is a country occupying 796,095 Sq. km. and populated with an estimated 165 million people. The literacy rate of the country is 53% ("Basic facts", 2011). The country is divided into four provinces. The factual information in this chapter will help in case selection for the present study. The factual data provides information about the basic education system in Pakistan. The Pakistani education system is very diverse and not uniform in terms of type of institutions. The government also played its role in the foundation of parallel educational systems in the country for many reasons. On the other hand, the government encouraged these systems to be the part of national education system in terms of curricula, cost and learning standards (National education policy, 2009). Figure 4.1 depicts the education stages and types of institutions offering education at different levels. Typically, the system has four stages: Pre-primary, Elementary (including primary and middle), Secondary (including 9-12 classes) and Higher education. The later sections of this chapter will discuss the primary level education, its statistics and existing condition due to the main focus of the present research. Diversity in schools can be demonstrated from Figure. 4.1 at school levels, however the most attended schools are public and private schools.

In Pakistan more students attend private schools than public schools. This ratio increases when we talk about urban areas of the country. This situation is reversed in the case of rural areas, where over 80% of students are associated with public schools (Lynd, 2007). Private education is more common at lower education levels in Pakistan. The gender disparity is prevalent as there are more boys than girls at almost all educational levels. However, higher education statistics 2003-04 showed that there is an increase of female enrolments at higher education from last few years. Hence, it can be argued that more girls progress to the higher education level in Pakistan than boys.

To understand the system, it is better to look the structure of education in the country in Figure 4.1, the list of type of schools with the details of their supporters is provided in Appendix 15.

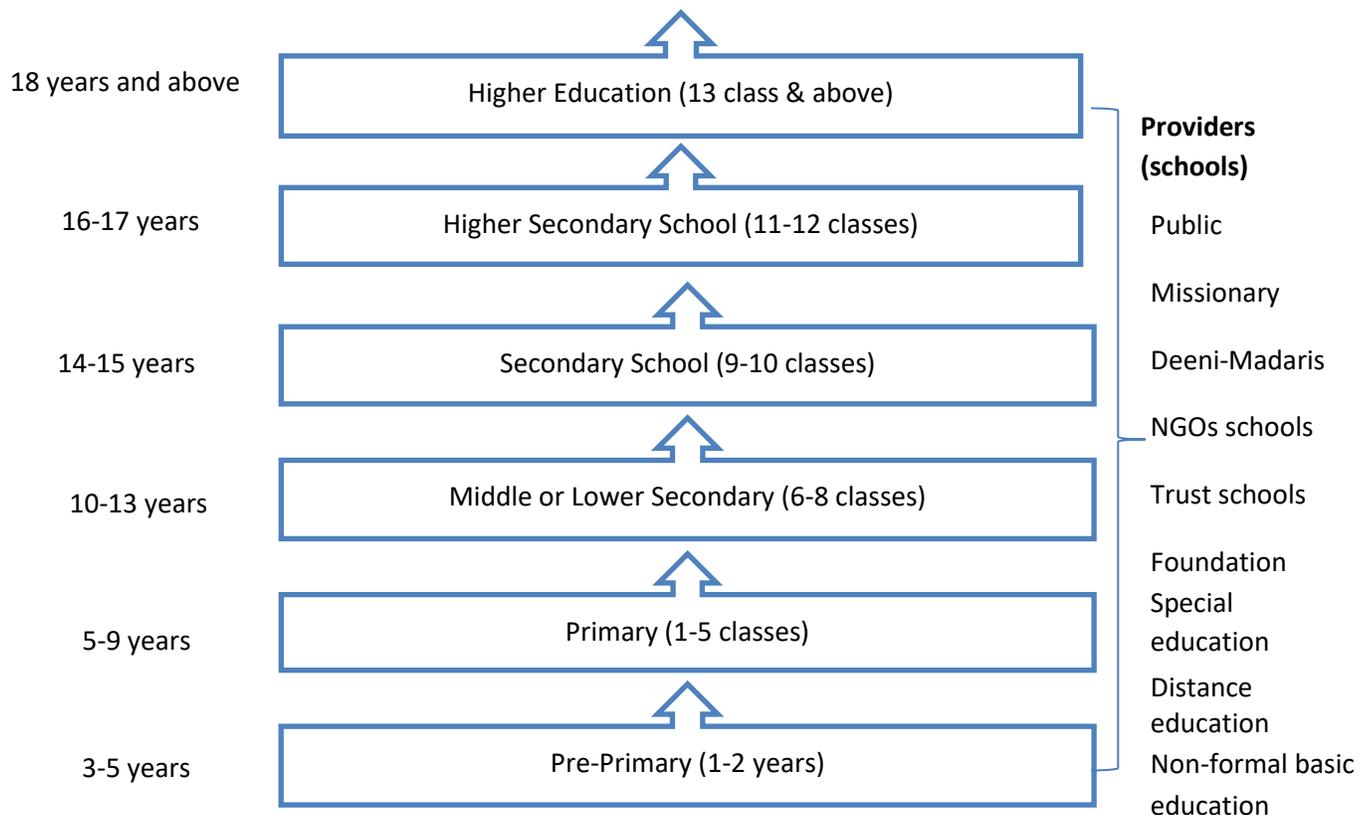


Figure 4.1: Stages of Education System and types of schools & institutions

The education system of Pakistan focuses on primary education but still many people are without primary education in the country. The main reason is lack of compulsory education measures by the Government and also there is no balancing growth at primary level with the same growth rate at higher levels (Lynd,

2007). The poor educational state of the country is also being affected by the random constitutional changes and political instability (Aziz, et. al., 2014).

The number of places at primary school level is even slightly less than the pre-primary level in the country. So, if more children attend primary school who did not attend pre-primary level, then there will be shortage of places even at primary level (Lynd, 2007). It is announced in Education Policy 2009 that ECE (Early Childhood Education/pre-primary) will be attached to primary schools with additional budget and trained teachers those can deal with the young children.

ECE (Early Child Education) in public sector is called “katchi” or pre-primary and in private sector termed as Nursery, Kindergarten, Montessori, Playgroup, Prep. etc. This level was discontinued in public sector but reintroduced in the 1998-2010 education policy of Pakistan (“*The system of education*”, 2006). The enrolment in ECE is very limited specifically in rural areas as compared to the total population of that age group 3-5 years (World data on education, 2011). The reasons are lack of government initiatives in past and awareness of the parents, where parents thought that this age is not appropriate to start children schooling. There are also quality issues, in public sector teachers are not trained and the required criterion of hiring teachers is secondary education with one year teaching experience (World data on education, 2011). Annual statistics of education report 2013 (ASER) reported that in Pakistan 59% of children are not attending early years of school. Although there is a 5% improvement in the enrolment rate of 5 year old children from last year (2012) in Pakistan.

### **4.3 Private Schools**

Private schools in Pakistan serve different economic groups for example elite class (high income population), middle economic class and low-income families (Aziz, et. al., 2014). The low-cost private schools are growing extensively, specifically in Punjab (the province in which the research sites were situated) and Khyber Pakhtunkhwa (provinces). Elite class private school systems are running successfully and playing a quality role in the Pakistani educational system. Some of these schools already had their branches in other countries and established in Pakistan based on their significant experiences. According to census data 1999-2000 which covered schools set up before March, 2000, 1334539 girls and 1624405 boys were enrolled in private primary schools in the province of Punjab (Census of Private Educational Institutions, 2000).

The private schools played their role in increasing the literacy rate of Pakistan but not significantly at

International level. Ahmed, et.al. (2013) conducted a study to compare the public and private education systems of Pakistan. The major findings of their study revealed that private schools performed better than public schools in terms of facilities, use of AV material, student-teacher interaction, teachers' lesson preparation and providing feedback to the students. However, the teachers in public schools are more qualified, experienced and have five times more salary than private school teachers.

In Pakistan there is growing trend to open private schools, and particularly private primary school to sell education because in 1984 Government gave this authority to the public. It was announced because the Government could not manage the burden of the whole education system (Ahmed, et.al., 2013). It was a move to increase Pakistan's literacy rate but then there was less concern about this uncontrolled growth. Later governments have taken steps to control private sector education, however the government statistics below showed that this trend is increasing day by day. Education census 2000 mentioned that only 23,040 private institutions are registered, 1,607 are recognised, 946 are affiliated and significant number of institutions (10,503) fit in the category of others (Census of Private Educational Institutions, 2000). It greatly affected primary schools because at this level less educated and low-paid young women are easily available to teach at primary schools (Andrabi, Das & Khwaja, 2008).

Table 4.1: Comparison of enrolments in Public/Private sector of Punjab Province

Primary Level	1999-2000	2005	2007-08	% of total in 2007-08	change since 2000 (%)
Private sector	4568890	5120963	5072796	29%	11%
Public sector	12480466	10982715	12155478	71%	-2.6%

Source: Reproduced from "Census of private educational institution" (2000)  
<http://www.pbs.gov.pk/content/census-private-educational-institutions-pakistan-1999-2000>

According to a study calculation by the end of 2005, among every three enrolled children, one was studying in a private primary school (Andrabi, et. al., 2007). One reason for this growing trend of private education (see Table 4.1) is English language popularity as to learn and speak English becomes status quo. Elite private schools attract their economic class by offering foreign curricula. Parents also preferred private school education for their children as those schools claimed to be English medium schools (schools that teach in English language). At present a student has to learn three or sometimes four languages for

example regional language (if not Urdu), Urdu, English and Arabic to perform religious rituals (Ahmed, et.al., 2013). Therefore, enrolment in private schools is increasing day by day specifically in rural areas than urban and is high in low economic areas of the country (Andrabi, Das & Khwaja, 2008). So now it can be argued that private schools are not only serving to the elite class of the population. These low cost but for profit private schools dramatically changed the educational landscape of the country. Typically, these schools (in a village) charge Rs. 1000/- (\$ 18, £6) per year per child by hiring less educated or untrained teachers and keep other costs low (Andrabi, Das & Khwaja, 2008).

Another big reason of this growing trend of private schools is possibly the decrease in the number of public primary schools. Six years statistical comparison showed that there is a decline of 3.8% due to up gradation of primary schools to higher levels, closing of non-functional schools and merger of many primary schools due to lack of teachers or lack of enrolment (*Pakistan education statistics 2011-12*).

Private schooling also becomes the preference of those parents who think that their children are less intelligent and there is no need to send girls to distant public schools (Andrabi, et. al., 2007). It was observed that even poorest households prefer to enrol their children in private schools, the main reasons are lowering school fee, location at the nearest and accessible places and high claims of increased quality (Alderman, Orazem & Paterno, 2001). The figure below shows that the majority of private schools are located within a five minutes’ walk in a village and also these schools lower the pupil-teacher ratio to attract parents and increase quality.

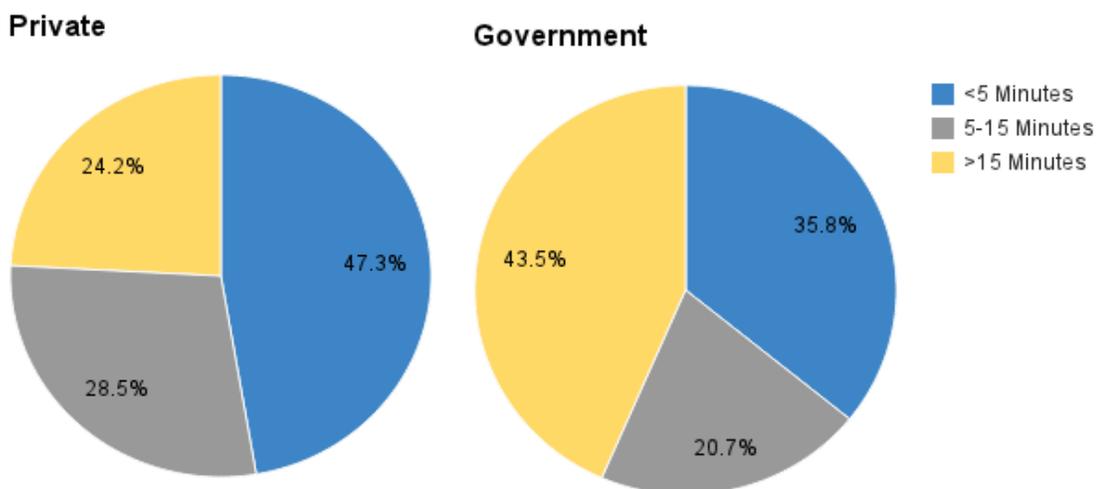


Figure 4.2: Distance between Schools in the Same Village

Source: Reproduced from Andrabi, et. al., (2007) “Insights to inform the educational policy debate”

A survey was carried out by LEAPS team (Learning & education achievement in Punjab Schools) in all public and private primary schools in 112 villages of the province. This survey reported that private school children scored high in all subjects. This study suggested a modified role of the government in order to ensure quality education, this implies hiring of qualified teachers and the provision of basic facilities in public schools. Children at the end of class III could not perform basic mathematical operations and were not able to write simple sentences in Urdu and English. To fill this learning gap, public school children have to attend additional school years to catch up with private school children. Also comparison of teachers' education and students' performance in public private sector showed that increase in teachers' education in public sector (for example from secondary to high) did not affect the children's performance but it did matter in private sector and raised their academic scores (Andrabi, et. al., 2007).

The LEAPS report also states that parents should be able to critically decide which school is best for their children. This implies that parents should be information literate. And on the part of government, it suggests filling the information gap between parents and schools' performance indicators, by providing this information and indicators to the parents, like Ofsted does in the UK. However, the ranking indicators should be defined clearly and a central body should be responsible for this.

#### **4.3.1 Private Schools' Performance**

Due to the growth of private schools in rural and urban areas globally, a large number of studies have focused on performance comparison within private and other schools (notably, public schools). In India and Pakistan, the studies found similar results and factors affecting privatization.

Das, Pandey & Zajonc (2006) examined learning gaps among public and private primary school children through a multiyear survey project in Pakistan and India. The sample consisted of 828 public and private schools in every village. Three districts in the Punjab province (Pakistan) were purposively selected from central, north and south parts. However, it was not discussed whether the sample was representative of the population. The third grade children from public and private village schools were tested in Urdu (the local language), Mathematics and English language. On average 10 children were randomly selected from each school by the project team and personally tested in the absence of class teachers. The selected participants' basic information (parents' education, economic status, number of siblings, distance to school from home) was also collected. It was found that children from rich families scored higher than children from poor families with a high margin in language and a lower one in mathematics. The

researchers declared this is an un-adjustable gap (an economic gap). Also children belonging to educated families scored higher than with illiterate parents. These results strongly mirror findings from Indian schools. The project team also find differences along geographical lines, the schools located in better areas scored higher than other schools. Overall, the children in third grade can hardly read and write and perform simple arithmetic operations.

Another study (Arif & Saqib, 2003) compared the findings of three types of primary schools (public, NGO and private) and identified gaps in children's cognitive skills. The 50 schools were selected across six districts of Pakistan and fourth grade children's Mathematics, Urdu and General knowledge scores were compared. The study reported that four separate questionnaires were utilized with school heads, class teachers, school children and parents. It was also stated that interviews were conducted, however, no interview findings were discussed. The development of utilized instruments was not discussed in detail. The teachers in NGO schools were not experienced and had 12 years of education. However, public sector teachers were more experienced. The study also reported over age children in same grade. The performance results showed that the majority of the student who scored 80 percent were from private schools followed by NGO and then public schools. The significant factors with students' high scores were mother's education, household income, and number of school-going children in a family.

The question of whether availability of private schools is strongly associated with public infrastructure facilities in a village was examined by Pal (2010) in five Indian states. Due to the non-availability of school statistics, the inquirer used community, school, child/household PROBE survey (Basic report on public education in India, 1999) data to test the above stated hypothesis. The sample included a total of 290 public and private schools, which includes 45 recognized and unrecognized private schools. The comparison of data found that due to presence of private schools in villages the pass rate of children increased. The teachers in private schools were young, more educated but not trained as teachers. The study was important in highlighting the factors of increasing privatization as it is increasing globally.

#### **4.4 National Statistics of Primary Education (Public Schools)**

The statistics discussed in this section were taken from different official websites including annual reports, millennium goals and education policies (public documents) of Pakistan, the tables were reproduced and figures were reproduced with permission from UNESCO (Appendix 8). However, the provided data is not very up to date due to the unavailability of current statistics. As Pakistan education statistics 2011-12 annual report provided the data limitations that the latest data is based on estimation and the original

data was collected during 2005-06. So the latest official data was not available to analyse the situation of primary schools in Pakistan.

District of Lahore data (shown in Table 4.2) provides a comparison of primary schools in the city; there is a majority of private primary schools, however this number only shows the registered private primary schools. There is no record of those private schools which are unregistered and established in almost every second street of the city. There is dramatic increase in the number of unregistered schools from the previous years. This situation may be reversed in rural populations. Hence, it can be concluded that a majority of children attend private schools, rather than public schools, in Lahore city (the current research site).

Table 4.2: Statistics for District Lahore

Primary Level	Total	Enrolments	Teachers
Public Schools	651	119909	2639
Mosque Schools	29	3013	76
Private Schools	875	488992	4450

Source: Reproduced from “statistics for district Lahore” School Education Department, Government of the Punjab <http://schoolportal.punjab.gov.pk/schoolinfoNew.asp> and “Census of private educational institution” (2000) <http://www.pbs.gov.pk/content/census-private-educational-institutions-pakistan-1999-2000>

At primary education level, Pakistan signed the millennium development goals (MDG) to be achieved by 2015. Among those goals, one of the important goals was to achieve universal primary education. However, the situation is not very encouraging to meet this goal as there is a decline of 3.6% in enrolments at primary stage of education (*Pakistan education statistics 2011-12*). This decline of public sector institutions obviously increased enrolments in private sector (*Private sector education, 2010*). The male population of primary age group in Pakistan is 11.8 million, 8 million are enrolled and the remaining children are out of school. In the case of girls, the total population is 10.9 million and only 6.4 million are in school. It is clear from the statistics that more boys attend schools than girls but this situation can vary in different provinces, in urban and rural areas, and at different educational levels. Also enrolments cannot measure the quality of an education system.

In different provinces, baseline surveys of public schools reported that students perform better in rote learning subjects but poorly in subjects involving comprehension, problem solving and life skills (*Quality of primary education, 2003*). The dropout rates at primary level were decreased in previous years but again

jumped high during 2007-08 (National Education Policy, 2009) (Figure 4.3). It is due to the focus of government being increase of the gross rates at primary level and the issue of quality remained silent.

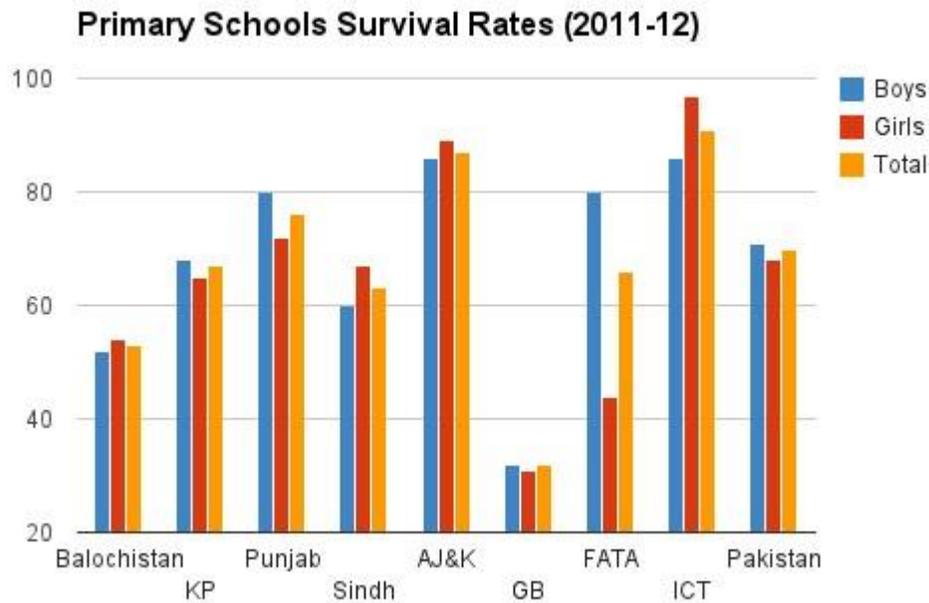


Figure 4.3: Primary Schools Survival rate to grade 5 in different provinces of Pakistan

Source: From “Country Report of Pakistan: Regarding Accelerating Millennium Development Goals 2013-15”, Ministry of Education & Training, Government of Pakistan, Islamabad, p.9.

For the achievement of universal primary education, government conducted a house to house census of 09 years in order to prepare data for out of school children. Feeder schools for 5-7 years’ children were set up in those areas where public primary schools were lacking. Feeder teachers were also provided to schools to cope with increased enrolment. Also the primary school teachers were provided with training to maintain quality education (“Year Book 2011-12”). It was decided by the government to bring all primary education age children to schools by the year 2015. Efforts have been made to reduce dropout rates by reducing poverty and to provide basic facilities to the schools to create a more attractive environment conducive to learning. From the primary level, every child should be allocated a unique ID that will continue throughout his academic career (National Education Policy, 2009).

Transitional rate is a measure of students' progress from one educational level to another and also the capacity of intake to the next level. The Figure 4.4 shows the transition rate from primary to lower secondary levels which is more than 80% in Punjab (one of Pakistan's provinces and present study's site) and more than 90% in ICT (Islamabad, Pakistan's capital) but less in remaining parts of the country (*Pakistan education statistics 2011-12*).

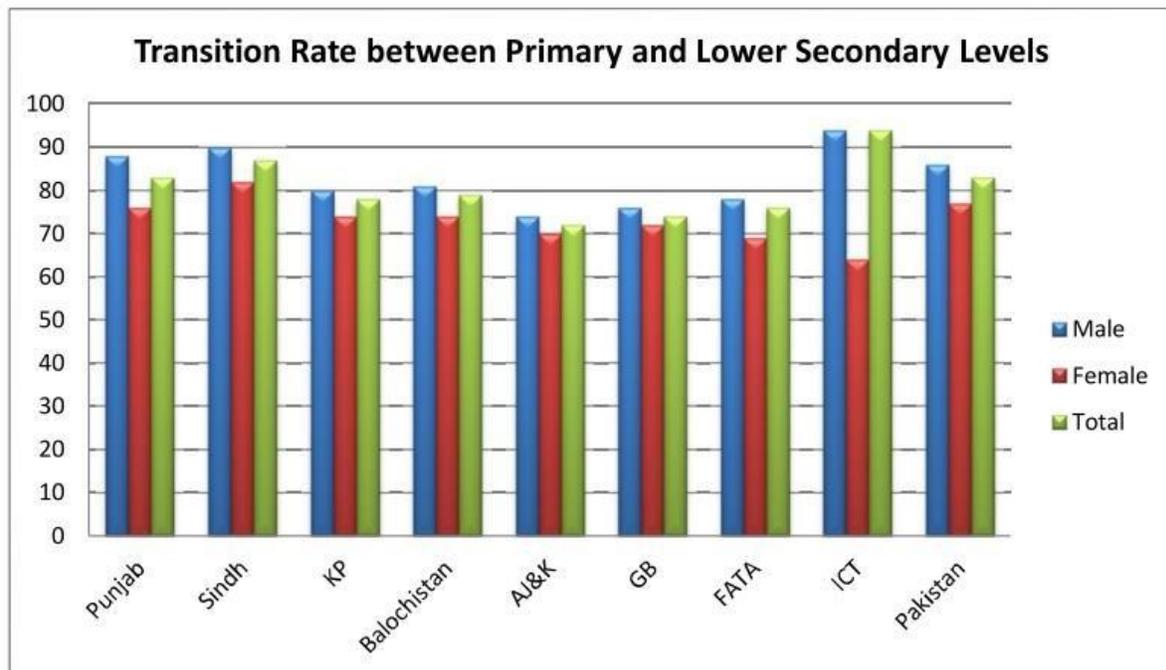


Figure 4.4: Transition rate between primary and lower secondary levels in provinces of Pakistan

Source: Pakistan Education Statistics 2011-12: Annual Report, National Education Management Information System, Academy of Educational Planning & Management, Ministry of Education & Training and Standards in Higher Education, Government of Pakistan, Islamabad, p.36

Even according to World data on education (2011) the highest dropout occurs between grades 1 and 2, 25% boys and 40% girls stop attending schools before reaching grade 2 (6 years of age). Quality of an educational system can be assessed by different indicators for example facilities, infrastructure, student-classroom ratio, survival rate, qualified teachers etc. The Figure (4.3) shows the survival rate to grade 5, overall survival rate is less than 80%, it is again better in ICT, the capital city of Pakistan. It is also interesting to note that in Islamabad (ICT, capital city) more than half of its total educational institutions are private (*Private sector institutions, 2010*). Anwar (1971) added that children did not acquire reading

habits at school and therefore most of them turn into illiteracy a few years after they left school. At the end of grade 5, public examinations are held to promote students to the next level.

The selective factors of dropouts were assessed in primary and middle schools in rural Punjab and Northwest frontier Provinces by Lloyd, Mete and Grant in 2009 through a longitudinal study. The sample includes 12 rural communities from six districts, three from each province. The data was collected in two phases. In phase one, married women aged 20-45 were interviewed in detail about children's schooling and household issues. The data about children and schools (school type, age at entry, at exit and grade attained, school building, text books, fee, teacher training, teacher workload) was also approached. In phase two, the women interviewed in phase one were re-interviewed and schools were re-visited and data was compared. However, it was not explained how the data was collected and how the survey instrument was used to collect data from schools. The participant children could also be interviewed to see the holistic picture of the situation. The compared data highlighted many household, community and school factors. The household factors included having an educated mother, and the father's occupation; having an educated mother reduced the probability of dropping out. Among community factors, living in an economically stable and developed community also reduces the chances of dropout of school children. In Punjab, completion rates were reported higher for girls and whilst they were lower in NWFP (province), as girls are unwanted siblings due to male dominance culture in Pakistan. The study observed higher dropout rates in government schools than in private and this is also higher in the case of girls than boys.

The poor quality of the public education system may be due to high pupil-teacher ratio 41:1, it shows that present teachers are overburdened due to the decrease in the number of public primary schools and teachers. The high student-teacher ratio also negatively affected students' academic performance. While talking about classroom learning, Khan (1970) said that classroom lessons incline students to passive learning.

The Government of Pakistan has taken many successful initiatives at primary level, but those initiatives could not sustain quality and cause dramatic change in the system. One of the most significant steps was developing national teaching kits for primary classes and their provision in schools. The target was the provision of library and instructional materials, equipment and improving teaching-learning strategies. And the objective was to improve classroom teaching and help students to identify problems, seek their solutions, acquire understanding of basic principles, develop skills of observation, experimentation and exploration (Quality of primary education, 2003). It is worth mentioning here that in government initiatives and plans, there is at least realization that provision of library facility in schools can build above

mentioned skills in children. However, in the description of this project the word “library” was associated with instructional material; it might be that the project team misperceived the word library and meant collection of instructional material.

Another significant project was “Supplementary readers in Punjab”. It was realized by the government that wider reading opportunities can develop a reading attitude in students and enhance their learning. In realization of this, 52 reader titles were provided to 1500 primary schools for ECE level and grade 1 and 2. Evaluation of these steps revealed that students become more confident and they got the opportunity to express themselves in a better way (Quality of Primary Education, 2003). This project also exhibited sufficient grounds for the provision of library at primary schools and publication of children’s literature. A study based on a project “Innovations in the katchi (pre-primary)” reported that provision of quality ECE resulted in improved life skills, self-esteem and social skills among students. The experimental group of parents in this study reported that children wanted to attend school every day, whilst before that before that they used to send the children by force. By using action research, the project team implemented an early childhood curriculum that reflected cultural values and norms in selected primary schools (Mahmud & McKay, 2006). This discussion concluded that the primary level of education remained the government’s priority, however temporary efforts were made to increase quality education. There is a need to plan and implement nationwide projects and the assurance of their progress and evaluation. Target objectives in the educational policies are not practical and over ambitious (Perveen, 2011).

#### **4.4.1 Facilities in Public Primary Schools**

ASER 2013 revealed that 100% government schools do not have computer labs, 92% do not have libraries and 72% do not have playgrounds. However, the situation is better in urban public primary schools. In the case of private schools, the situation is not satisfactory though better than public schools. None of the surveyed schools has a computer lab, 81% do not have libraries and 66% have no playground. An annual status report indicated that public primary schools lack basic facilities of black/white board, text books and desks, but the situation is better in private schools (Annual status of education, 2014). The private schools are compared to public schools, therefore they are considered better, these schools also lack standard facilities. School infrastructure and provision of facilities is strongly correlated with educational outcomes (Annual status of education, 2014).

Table 4.3: Missing facilities in public primary schools

Missing Facilities (2003-04) at Government Primary Schools	Boys' Schools	Girls' Schools
No building	1562	1540
No Electricity	13242	13907
No drinking water	6016	6445
No Toilet	11847	5973
No Boundary wall	12237	3953
No Furniture	8634	8590
Insufficient Furniture	7623	3817
Dangerous Buildings	1472	1622
Need Major Repairs	3769	2592
One Class Room	2449	1712

Source: Reproduced with permission from "World data on education, 2007", 6th ed. Retrieved from [http://www.ibe.unesco.org/fileadmin/user\\_upload/archive/Countries/WDE/2006/ASIA\\_and\\_the\\_PACIFIC/Pakistan/Pakistan.pdf](http://www.ibe.unesco.org/fileadmin/user_upload/archive/Countries/WDE/2006/ASIA_and_the_PACIFIC/Pakistan/Pakistan.pdf)

The source "world data on education" argued that the missing facilities (Table 4.3) are not due to financial constraints rather poor planning. The federal government provides funds to the provinces for capital expenditure and then provinces allocate a specific budget to education via their provincial governments. Every year a big portion of educational budget has been allocated to primary education in all provinces and remained unutilized due to lack of proper planning (*World data on education*, 2006). According to National Education Policy 2009 estimation the 20% to 30% allocated budget lapsed every year. The whole

education system is under political influence and favouritism which has caused improper allocation of resources at schools, recruitment of untrained teachers and biased quality assessments.

Teaching kit is one of the important resource materials for quality teaching, but government primary schools were provided with teaching kits in mid 70s and since then kits have been neither repaired nor updated. Teachers hesitate to use kits due to the fear of their damage, curriculum pressures and no training in the use of material (Quality of primary education, 2003). The national teaching kit was provided to 65,000 schools and it was very useful in teaching Science, Mathematics, Social Studies and Language (Quality of Primary Education, 2003). Evaluation surveys reported that the use of teaching kits developed interest among students.

It was also suggested in the Education Policy 2009 that the condition of public schools can be improved by bridging the gap between the private and public divide. By law these schools are bound to be registered with their provincial authorities; still, registered schools charge more fee than they are authorized to take. These schools are being encouraged by the government to offer 10% needy and merit based admissions, however no school is following this regulation. Due to these irregularities, the public sector has failed to get benefits from private sector growth. Education Policy 2009 highlighted some areas where private sector can assist public sector and the condition of public schools can be improved:

- School construction
- Textbook development
- Libraries development including provision of supplementary reading material
- Teacher education
- Transportation
- Food supplement to poor children
- Literacy programs
- Information Communication Technology (ICT) (National Education, 2009, p.25)

#### **4.5 Pakistani children emotional and behavioural issues**

A large number of studies (Javed, Kundi & Khan, 1992; Syed, Hussein & Haidry, 2009) found behavioural problems in school children, the present study also evidenced these problems. Syed, Hussein & Haidry (2009) found behavioural and emotional problems among primary school children in Karachi (city), Pakistan. The sample consists of seven private and eight community schools; parents of pupils aged 5-11

years and teachers filled the survey questionnaire. For parents with little or no education, researchers assisted participants in filling questionnaires. Mostly teachers identified academic and discipline issues and parents pointed out emotional problems. Both participants rated boys more for conduct and peer related problems and girls with more emotional problems.

Another study (Shamama-tus-Sabah & Gilani, 2011) about measuring cognitive performance of Pakistani primary school children in relation to home chaos found no positive correlation. However, the results indicated behavioural problems (antisocial, low level of adaptive behaviour) among primary school children. The 203 primary school children between ages 8-11 years were selected from three urban areas of Pakistan. The federal government (capital) schools were accessed as researchers could not get permission in army funded and private schools. The home chaos and socio-emotional adjustment was measured through questionnaires from their parents and teachers. The questionnaires were adopted from previous studies and translated into Urdu (language) for convenience. The study suggested that parents in Pakistan should be aware that their role in providing less noisy environment in homes is very critical in their children lives.

## **4.6 National Curriculum & Key Aspects**

### **4.6.1 Introduction**

This section will deal with the key aspects of national curriculum, which can incorporate information literacy instruction at primary education level. The purpose of this section is not the overall analysis of the curriculum. Basically the Ministry of Education, Curriculum Wing is responsible for designing curriculum, textbooks and other learning materials. The process of curriculum design includes collecting opinions from stakeholders, preparing the draft and submitting it to the curriculum wing for analysis and implementation (World data on education, 2011).

### **4.6.2 National curriculum grade one and two aspects**

Some public schools work five days per week and some six days per week but the total working hours remain same in both cases. Friday is half day in all schools; these working hours (Table 4.4) exclude time for daily assembly and breaks. Table 4.4 presents study plans for 5-7 years school children (grade 1 & 2), used in 1996, however the updated lesson planning could not be accessed. It shows that more time is allocated to first language reading in both grade levels. The second maximum allocation of time in grade 1 was given to Mathematics and Listening and Speaking. However, these slots were reduced in grade 2. Activity based work was given least importance in both grade levels, therefore in Pakistan the centre of

whole curriculum are textbooks; teachers do not use the curriculum but rather focus on the textbooks assigned to that level (National Education Policy, 2009).

Table 4.4: Study plan for primary education (1996)

Subjects	Grade 1	Grade 2
	No. of Weekly Periods	No. of Weekly Periods
<b>First Language</b>	-	-
<b>Listening &amp; Speaking</b>	9	2
<b>Reading</b>	12	8
<b>Writing</b>	6	4
<b>Second Language</b>	-	-
<b>Activity based on textbooks</b>	4	2.40
<b>Mathematics</b>	9	6
<b>Islamic Education</b>	2	1.20
<b>Physical Education</b>	3	2
<b>Total Weekly Period/Hours</b>	39	26

Source: Reproduced with permission from World data on education (2011). 7th ed. retrieved from [http://www.ibe.unesco.org/fileadmin/user\\_upload/Publications/WDE/2010/pdf-versions/Pakistan.pdf](http://www.ibe.unesco.org/fileadmin/user_upload/Publications/WDE/2010/pdf-versions/Pakistan.pdf)

Perveen (2011) conducted a study on the evaluation of primary curriculum in the light of education policies and she revealed that objectives of curriculum were not fully achieved and the implementation process was weak. She highlighted that curriculum is very structured, inflexible and lengthy. The basic reason is teachers are not involved in the development of curricula, therefore they misunderstand curriculum as textbooks. The majority of the teachers found English language and Science curricula very difficult because some of the concepts cannot be explained in practical terms. A copy of the curriculum had never been provided to the teachers (Quality of primary education, 2003). Also the majority of the primary schools did not have teaching kits and supplementary reading material.

An effort was made to develop integrated curriculum for classes I-III. This curriculum reforms project was funded by UNICEF, outcomes included reduced children's school bag size and teachers' focus on students' character building. Books were revised and teachers' manuals were prepared including lesson plans, assessment questions and exercises. However, teachers had no concept of an integrated curriculum and teachers' manuals were not prepared on a large scale (Quality of Primary Education, 2003). Another study proposed that child centred and culturally appropriate curriculum can be successful in Pakistan (Mahmud & McKay, 2006).

In 2003, it was planned to revise the curriculum after every 5 years (Majeed, 2007). However, the last curriculum revised from ECE (Early Childhood Education) to Higher Secondary level in 2006 and notified in 2007 and has been taught in all schools up to the present, although the revision was due in 2011. The selected salient features of the 2006 scheme of studies are:

- ECE has been recognized and made a regular part of the new scheme
- Arts & crafts, library and practical experience in social and environmental education have been included to provide for foundational skills
- General knowledge will be taught in classes I-II to include Islamiyat (covers religion Islam), Science and Social Studies
- Both Urdu and English languages will be taught from grade I onwards as compulsory subjects
- Computer literacy (applied/hands on) will be compulsory for classes VI-VIII after 3 years when the provinces have the necessary infrastructure for the purpose
- Introduction to technologies will be an optional subject to provide for technical skills education (Majeed, 2007, pp. 3-4)

The present curriculum document is very comprehensive in its nature, incorporating learning objectives, learning outcomes, scope, activities, methods of teaching, evaluations and proper guidelines for textbook writers. The context of curriculum has also defined for example awareness for primary stage, orientation for middle stage etc. The curriculum focuses on life skills, critical thinking, application, analysis, synthesis as well as behavioural knowledge. The curriculum covers emerging developments and modern trends (Majeed, 2007).

#### **4.6.3 Curriculum analysis in terms of IL**

The current curriculum was reviewed to find aspects of information literacy (IL). In order to map the IL in the current curriculum, an existing IL framework was used. James Herring's PLUS model (1996) was

chosen, this model was discussed in detail in literature review chapter. The model is research based and specifically designed for school settings, therefore, it was decided to relate PLUS model components, P=Purpose, L=Location, U=Use and S=Self-evaluation with national primary (5-7 years school children) curriculum of Pakistan. Curriculum of three subjects: English language, General knowledge and Mathematics was analysed for this purpose which were accessible to the researcher (Figure.4.5).

**PLUS Model** → P=Purpose, L=Location, U=Use, S=Self-evaluation

**Subjects** →

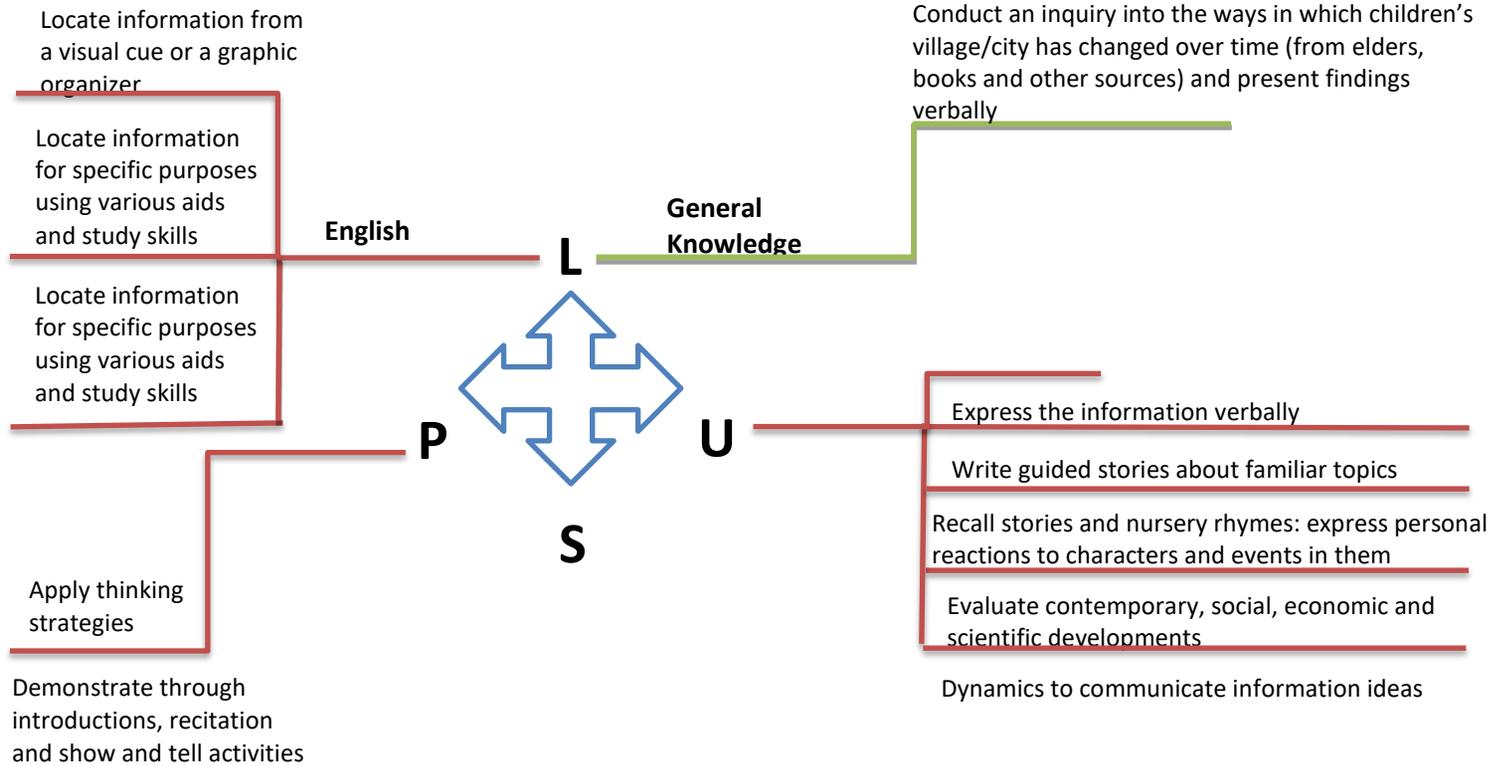


Figure 4.5: PLUS Model primary connections with curriculum 2006

It was found that for both grades English language curriculum incorporates basic IL components of the “P”, “L” and “U” of PLUS model. The General knowledge curriculum has limited IL connections; it only integrates location skills. However, analysis of curriculum contents identified that other aspects of IL can also be incorporated in General Knowledge curriculum (Figure 4.6). The Figure (4.6) depicts examples of topics which incorporate the use of library and information sources. This curriculum also includes skills including initiating, planning, questioning, gathering evidence, analysing and interpreting (National curriculum, 2007). The Mathematics curriculum though could not show any links with the PLUS model. None of the subjects relate to “S” (self-evaluation) component. This component includes abilities to reflect on what has been learnt and identify areas of improvement (Herring, 1996).

4.2 Grade - II Learning Themes and Students' Learning Outcomes Knowledge, Skills and Attitudes		4.1 Grade - I Learning Themes and Students' Learning Outcomes Knowledge, Skills and Attitudes	
Themes	Students' Learning Outcomes	Themes	Students' Learning Outcomes
<b>Uses of Earth's Resources</b> <ul style="list-style-type: none"> <li>• Need to Use the Resources.</li> <li>• Natural Materials.</li> <li>• Human Made Objects.</li> </ul>	<ul style="list-style-type: none"> <li>• Recognize that human being use the resources of the Earth to meet their needs (land for farming, river/ sea for fishing etc.).</li> <li>• Recognize that people work to earn for living and through their work help each other.</li> <li>• Differentiate between the materials that are found naturally and the objects that are made from these materials by humans.</li> </ul>	<b>What I want to be?</b> <ul style="list-style-type: none"> <li>• Common Professions.</li> <li>• Profession they want to choose.</li> </ul>	<ul style="list-style-type: none"> <li>• Identify some professions from pictures (teaching, farming, medicine).</li> <li>• State what they would like to be when they grow up and why.</li> <li>• Gather information from other students in their class regarding what they would like to be when they grow up.</li> </ul>
<b>Agriculture</b> <ul style="list-style-type: none"> <li>• Major Crops in Pakistan.</li> <li>• Processing (Making Products).</li> <li>• Animal Rearing in Pakistan.</li> </ul>	<ul style="list-style-type: none"> <li>• List the major crops grown and animals reared in Pakistan.</li> <li>• Recognize that people process the crops they grow for making products (cotton to thread to cloth to garments).</li> <li>• Identify the natural source of common products sold in the market (biscuits made from wheat).</li> </ul>	<b>Life and People in the Past</b> <ul style="list-style-type: none"> <li>• Changes in their Lives.</li> <li>• Key Events in their Lives and their Parents.</li> </ul>	<ul style="list-style-type: none"> <li>• Identify key events in their lives.</li> <li>• Make a pictorial timeline for the key events in their life (birth of a sibling, a trip, some wedding or a party, a picnic).</li> </ul>
		<b>Objects in the Sky</b> <ul style="list-style-type: none"> <li>• Sun, Moon and Stars.</li> <li>• Objects during Day and Night.</li> </ul>	<ul style="list-style-type: none"> <li>• Identify objects in the sky during day and night.</li> <li>• Recognize that the sun shines very brightly during the day and gives us heat and light.</li> <li>• Recognize that the moon and stars shine at night.</li> </ul>
		<b>Weather</b> <ul style="list-style-type: none"> <li>• Weather Conditions (Sunny, Rainy, Cloudy, and Windy).</li> </ul>	<ul style="list-style-type: none"> <li>• Identify the daily weather conditions (sunny, rainy, cloudy, and windy).</li> <li>• Predict daily weather conditions (through observations).</li> </ul>

Figure 4.6: Examples from National Curriculum for General Knowledge Grade 1 & 2 (2007, pp. 13, 20, 25)

From English language curriculum the benchmarks of different competencies (for example reading, writing, oral skills etc.) were analysed to make connections with the PLUS model (Figure.4.5). In the Figure 4.5, colours show how the subjects relate to IL aspects. It can be determined that the English language curriculum incorporates thinking strategies, brainstorming and research skills both in curriculum and instructional strategies. However, the present curriculum showed limited provisions for the IL elements of “P” and “U” (PLUS model), those include thinking strategies,

identifying information sources and use of information. It was found that the “L” (Location) component got adequate connections in the curriculum. These include locating information for a specific purpose from variety of sources through study skills (National curriculum, 2006). To attain this competency students need IL skills more specifically than study skills. It seems that although there are many provisions for IL skills in curriculum, the curriculum developers were not aware of IL concept and instruction. The analysis of the curriculum document shows that its developers were convinced about the integrated information literacy practice (IL), however they were not using the term IL. The English curriculum was also confined in term of use of information (U component). It includes reading, writing and verbal expression of information, however lacks reference to interactive, recording, selective and evaluation skills in the use of information.

It was also found useful to discuss IL aspects’ (PLUS Model) connections with Pre-Primary (ECE, Early Childhood Education) curriculum 2006 (Figure.4.7). This review will explore curriculum contents related to IL and transition of those contents at Primary (Grade 1 and 2) levels. It was found that at pre-primary stage more subjects can be related to IL aspects (P, L and U). The most relevant subject in terms of information literacy was again English language, which implies location skills and the use of information skills (L and U). Other subjects, for example Visual arts, Dramatic play, Mathematics and The world around us, were also found relevant, though these subjects covered basic level skills of components “P” (Purpose), “L” (Location) and “U” (Use) (Figure.4.7). The use of information (U component) got significant links at pre-primary stage (Figure. 4.7).

The “S” (self-evaluation) component again could not get connected with curriculum contents. However, one aspect of the subject of Personality & Social Development “children will demonstrate a sense of responsibility for self & other” although it could be connected to other IL models (for example

“Standards for the 21<sup>st</sup>-Century Learner”) did not relate to any aspect of the PLUS model (Figure.4.7). It was found that the PLUS model is limited in terms of learning values, societal responsibilities and connecting learning to community issues. It is suggested that the “S” component is limited to self-evaluation, it should be modified to “Social responsibility” to include self-evaluation, learning democratic values & responsibilities, sharing knowledge and connecting learning to societal issues.

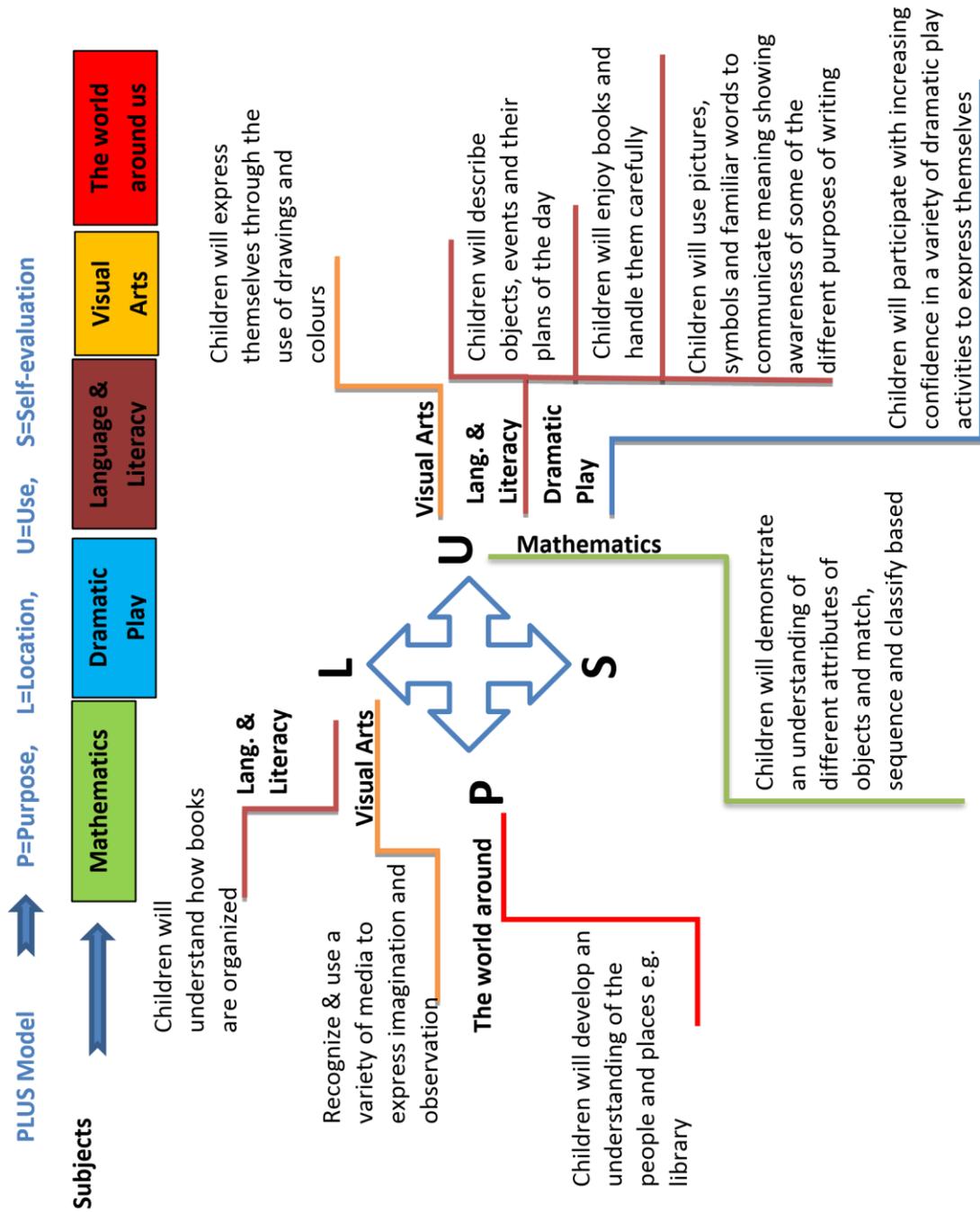


Figure 4.7: PLUS Model connections with Pre-Primary (Early Childhood Education ECE) Curriculum

#### 4.6.4 Teachers

Teaching has become the easy and quick source of employment for the young educated population in Pakistan. According to census data 1999-2000 there are 38949 females and 7810 male primary teachers working in the province of Punjab (Census of Private Educational Institutions, 2000).

Statistics (Table 4.2) show that more teachers are working in the private sector. The “annual status of education, 2014” reported that teachers are willing to work in private sector with low salaries due to relaxed hiring criteria. The data regarding teachers revealed that the percentage of untrained teachers was more in private sector than public sector and mostly of those teaching at lower levels of education (Annual status of education, 2014).

Government teachers are more experienced, with higher salaries but lack modern pedagogical skills and use of latest technologies. In the private sector the teachers are young, less experienced but familiar with modern technologies. Therefore, private school children perform better than public school children (Ahmed et. al., 2013).

In the public sector, the government has arranged in-service training for teachers which trained them in many areas; for example, group work, observation, storytelling, dealing with objects etc. (Quality of Primary Education, 2003). One study signified the importance of training and concluded, if teachers are trained in-service, they can perform radically and even they become trainers of other teachers (Mahmud & Mckay, 2006). Recently Punjab government (provincial government) has planned to train primary school teachers in reading instruction, it was announced that 3000 school teachers of 7000 public sector schools will be trained (Teachers to be trained, Dawn News, 2014, February 28). This attempt was made under the “Pakistan Reading Project” funded by USAID, the project aimed to improve the reading skills of 3.2 million primary school children across Pakistan (USAID, 2014). In spite of these efforts, teachers in Pakistan are facing challenges of time, space, pedagogical skills, use of their resources for making learning material, parental expectations and support from school administration (Mahmud & Mckay, 2006). In fact, the whole education system is challenged by the political promises of governments and political instability making it worst in terms of quality and infrastructure.

National policy documents realized the importance of teachers and their roles in implementing educational reforms. However, the provision of quality teachers is a matter of concern in almost all government primary schools. Most of the teachers generally have higher secondary education with one year teaching experience, even this criterion is relaxed in some areas (Quality of primary education, 2003). Therefore, National Education Policy 2009 suggested pre-service and in-service training for teachers.

#### 4.6.5 Teachers' Instructional Strategies

The national English language curriculum includes comprehensive guidance on instructional strategies for the school teachers. These strategies are arranged according to educational grade level. The strategies focused on developing learning environments in schools and developing students as independent learners. The strategies focused on using inquiry/investigation skills and enabling students to frame questions and gather relevant information. For their independent learning, project work and presentations are very important and should be the part of teacher's instruction (National curriculum, 2006).

It was also advised in English Language curriculum (Grade 1 and 2) and Teacher guides to use supplementary materials along with textbooks and teacher guides (Figure. 4.5, 4.8). The curriculum encouraged teachers to use other books, reference material, A/V material and other communication channels in their classroom instructions. The experienced teachers usually in Pakistan do not learn innovative ways of teaching, however the national curriculum has many provisions to make instruction innovative and interesting. It can also be concluded here that IL (Information Literacy) instruction can also be embedded easily in teachers' instructional strategies, for example independent learning skills, project and presentation skills etc. (Figure.4.5, 4.8). For its implementation, professional school librarians can collaborate with teachers and can also share their teaching burdens. Overview of the curriculum in terms of IL instruction also urged the need of proper school library with appropriate learning material.

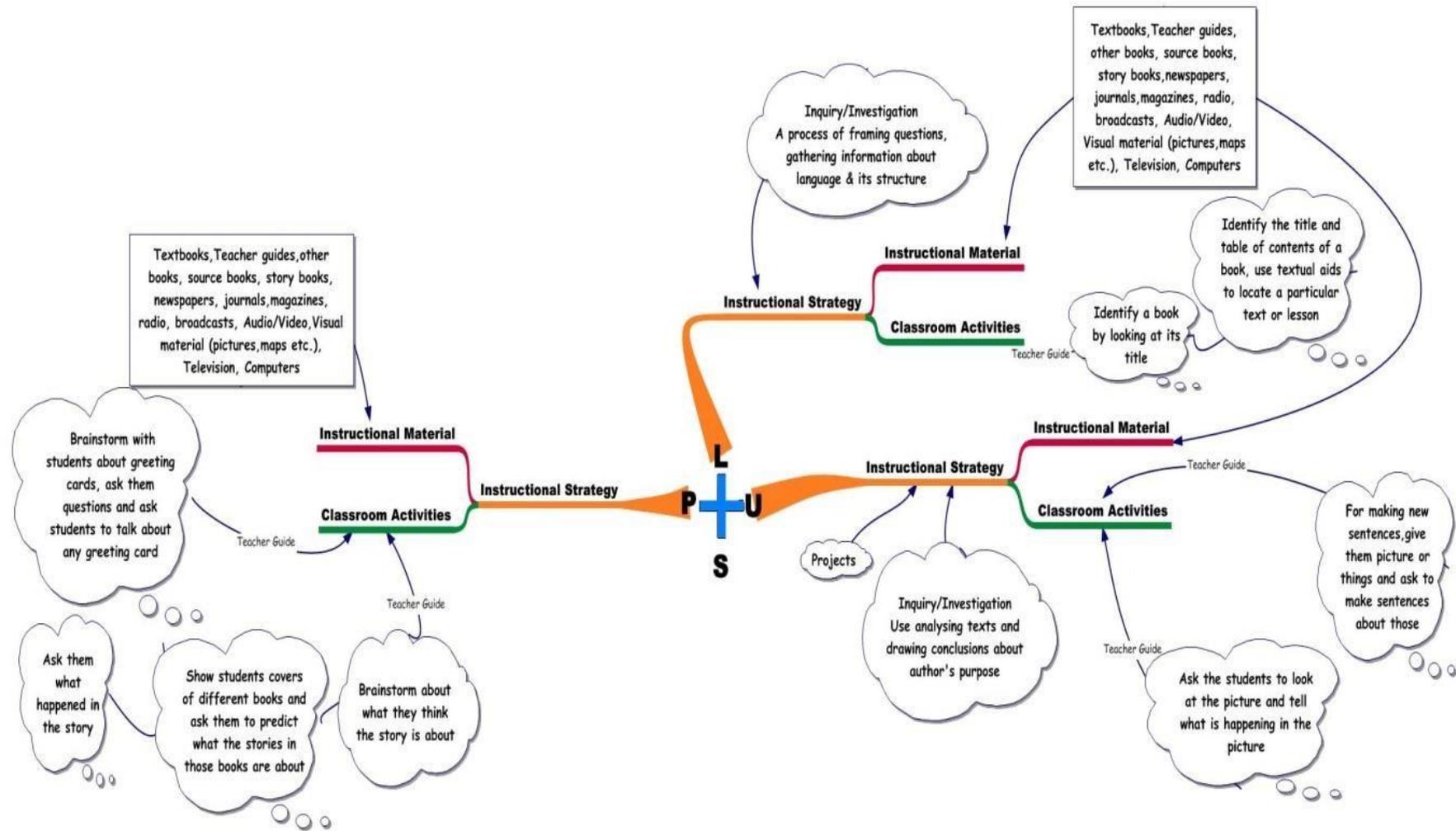


Figure 4.8: PLUS Model connections with Primary (Grade 1 & 2) English Language Instructional Strategies and Teacher Guide

An analysis (Figure. 4.8) of English language curriculum instructional strategies and teacher guides concluded that there are more provisions for IL instruction in teachers' instruction and classroom activities than the analysed curriculum documents. For example, many classroom activities (Figure. 4.8) are related to component "P" (Purpose), which implies brainstorming and thinking strategies. Another strategy involves the process of framing questions and gathering relevant information ("L" component). Teachers' instructional strategies can play very important role to develop information literate learners. In addition, project and presentation based instructional strategy allows creativity and the development of research skills. Some activities which allow students to describe pictures or thing can be related to use of information ("U" component).

#### **4.6.6 Teacher Guides**

The analysis of teacher guides in terms of IL is also worth addressing here (Figure.4.9). The government has also prepared teacher guides for in-service teachers to improve their pedagogical skills. The Directorate of Staff Development, Pakistan trained school teachers to improve their instruction styles and use of teaching guides. Mostly, the guides have been published to teach English Language, General Knowledge and Mathematics subjects at primary level. The guides are prepared to cover lesson planning of all topics mentioned in the national curriculum to achieve required competency levels and student learning outcomes. This is one of the significant steps by the government to improve the quality of teaching in schools. However, these guides are not available nationwide, therefore in the present study one teacher participant stated that "she has only English Language Guide". The Government should ensure the availability of these guides for all subjects nationwide.

A review of grade 1 and grade 2 English language guides found many IL related classroom activities and use of supplementary material from Library. For example, for the understanding of nouns, capitalization and making sentences, described activities used an advertisement from a newspaper or a story book or a simple picture about things (Figure.4.9). In these activities students will look different information sources to find nouns and will describe a picture by making sentences. It relates to the "L" and "U" components of PLUS model in which student will develop locational, selection and interactive skills to find and understand information.

**Activity 11**

**Capital letters for names**

**Method:**

- Show students your roll call register. Ask their names and point to the capital letters at the start of their names. Ask them to check their text/note books to see if their names start with a capital letter.
- Show them a basic level story book in which names of pet animals and human characters are given. Point to these and ask them if the names start with capital or small letters.

For making new sentences, the students may be given some pictures or things from the immediate environment whose names they can read. Ask them to make sentences about those pictures or things.

Figure 4.9: Teachers' Guide: Lesson Plans English 2, Directorate of Staff Development, Lahore, Pakistan, p.51

Also the use of these guides will enable children to locate exact information from a book by using table of contents (TOCs). For example, grade 2 teacher guide listed an activity (Figure. 4.10) in which students will identify the book title and will learn how to reach exact page number with the use table of contents. These activities will help students familiarizing with books and develop their reading habits. In both grades' curriculum there is a topic about stories "Reading stories in grade 2" and "Story time in grade 1". The main purpose of these topics is to develop reading habit and to develop thinking strategies through prediction of stories and making sequence of different parts of the story.

 <p><b>Students Learning Outcomes</b></p> <ul style="list-style-type: none"> <li>• Identify the title and table of contents of a book.</li> <li>• Use <b>textual aids</b> such as a table of contents to locate a particular text/ lesson.</li> </ul>	 <p><b>Introduction</b></p> <ul style="list-style-type: none"> <li>• Show the students a thick book and a very thin one.</li> <li>• Ask them to guess how many pages each has.</li> <li>• Ask them how we can find the exact number of pages of a book (by looking at the number written</li> </ul>
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Figure 4.10: Teachers' Guide: Lesson Plans English 2, Directorate of Staff Development, Lahore, Pakistan, p.14

Similarly, there are some classroom activities advocated in the teachers' guide which can develop learning of use of information. For example, while teaching action words, students can learn use of information by describing pictures and different sports posters for example jumping, running etc. (Figure.4.11). PLUS model' "U" relates to the effective use of information by developing interactive, selective and synthesising skills (Herring, 1996). The

activity showed in Figure 4.11 may enable the students to understand the information in graphic form and later how to describe that. In addition, this practice will improve their observational and analytical skills. All the suggested activities require a variety of learning material (Figure. 4.11) to be performed in schools. Therefore, there is a dire need of a library / media centre in all schools to support quality learning. Also an analysis of English language curriculum evidenced provision of IL instruction at primary grade level. The IL instruction can be started in public primary schools with a professional librarian and well equipped library. Perhaps librarians could also improve this situation and this will be addressed further in the discussion chapter. The embedded IL instruction will increase student's learning ability and will lead to independent learners.

**Activity 2**

- Ask the students to look at the picture and tell what is happening in the picture. (This picture may be taken from the textbook. You may find more interesting pictures from the sports pages of the newspapers, where you see someone, jumping, running, playing, etc).
- Ask the students to tell action word for each action.
- Ask the students to figure out the spelling from the sound of the word. Help them as they go along. They will learn the spelling of these words.
- Ask the students to write action words for each picture.

*Figure 4.11: Teachers' Guide: Lesson Plans English 1, Directorate of Staff Development, Lahore, Pakistan, p.44*

The well-equipped library will provide a learning environment to the students. They become confident in the use of variety of information sources. The teacher guides also considered the importance of building brainstorming or thinking skills among students (Figure. 4.12). In many classroom activities teachers asked to practice brainstorming by asking questions or to discuss student ideas before starting lecture. PLUS model's "P" also incorporates cognitive skills and thinking skills in its range of information skills (Herring, 1996). So we can conclude that many aspects of Herring's model ("P", "L" and "U") are covered by English Language Primary Curriculum at basic level. However, curriculum can be modified to cover other IL aspects with latest and advanced skills.



### Material/Resources required

Teachers collection of stories in print form /cassette, recording of stories from various educational TV programs, chart paper, coloured chalk/markers/pencil, scissors, strings, hangers, available props, stuffed toys, balls, stick-on/prepared story cut-outs, noun, adjective, verb, pronoun, prepositions, sequence words, sentence cards.

- Brainstorm about what they think the story is about.
- Read the story once using intonation, stress and pronunciation and body language (with actions) pointing to pictures and introducing characters.
- Also explain as you go along, translating English words wherever necessary.
- Draw the characters and some important

Figure 4.12: Teachers' Guide: Lesson Plans English 1, Directorate of Staff Development, Lahore, Pakistan, p.62

## 4.7 School Libraries

Haider, while writing preface of a book, stated that in Pakistan children's library services came into discussion in the mid-1960s (Fatima, 1989). However, the published literature focused on surveys of school libraries (specifically secondary school libraries), children library services, children literature, reading habits and on the development of library standards (Fatima, 1989; Khawaja, 1988). Mumtaz (1970) mentioned that libraries in primary schools at that time were, practically, non-existent. Fatima (1989) reported that government library plans and reports remained silent on the development of children's libraries and services.

Previous studies (Lynd, 2007; World data on education, 2007; Khan, 2013) confirmed the missing facilities in primary schools, specifically non-availability of libraries and librarians in public schools. Khan (2013, February 9) reported that there are 454 public schools in Lahore (the site of the current research) and 300 schools do not have functional libraries. The standard of education is badly affected by the lower provision of learning resource materials in government primary schools (Perveen, 2011).

Literature (Anwar, 1971; Khawaja, 1988; Haider, 2008) highlighted the basic problems of school libraries. The non-availability of children's literature, professional librarians and regular provision of budget are the major issues of school libraries in Pakistan. To solve budgetary constraints, Khawaja (1988) proposed qualitative standards for school library budgets. He was of the view that budget should be regular, on an annual basis, sufficient and should be clearly specified in the annual school budget.

A professionally trained librarian plays very important role in the overall development of a school library. Merchant (2007) claimed that young librarians are not aware of published children's literature. On the other hand, school librarians should have background in education to be successful (Anwar, 1970). He recommended offering courses in education in library science curricula. The role of the school librarian should be as teacher and collaborator to achieve the goals of information and media literacy (Merchant, 2007). While talking about school librarians' role, Khan (1970) added that librarians should prepare illustrated catalogues and organize multiple activities including story hours, puppet plays, screening of films, competitions and games.

However, many developments are going on in the country to promote reading culture and the establishments of libraries in public schools. Pakistan libraries project (PLP) started in 2008, to develop community driven libraries in schools across Pakistan. The project is an exemplary model of collaboration between government, NGO's, foundations and individual schools and is working in phases to establish libraries. Currently, the project is focusing on primary schools and in later phases secondary and high schools will be targeted (Pakistan libraries project, 2010).

#### **4.8 Children Services in Public Libraries**

It is important here to discuss the public library availability and services for school children in the city. The city of Lahore is fortunate to have many more public libraries than rural areas of Pakistan. However, the researcher asked five public library heads (personal communication, January 27, 2015, through personal reference the researcher came to know that these libraries had children sections) and four heads confirmed that they have children sections in their libraries (Punjab Public Library, Model Town Public Library, Defence Public Library and Chughtai Public library). One trust library (Dayal Singh Trust Library) also has a children's section. According to a survey of public libraries use in Lahore, public libraries have government officials as their library committee members. For example, Punjab Public Library had 16 government officials as their library committee members (Basharat, 1978). There are also NGOs in the city which are contributing to increase the literacy rate of Pakistan. Among them, Alf Laila Book Bus Society is also providing library services to the school children in park and mobile library services in the whole province of Punjab, Pakistan. According to a newspaper this society also established a library corner in class rooms with at least 1000 books in schools of South Punjab, Pakistan (Primary education, 2013, April 6).

Recently, United States Agency for International Development (USAID) and the International Rescue Committee (IRC) jointly launched reading project mobile bus library programme in Islamabad (capital) and Sindh (Province). To reinforce reading culture in Pakistan, this project aims to provide reading material to the community. Through this project those areas of Pakistan will be served where children lack established libraries and community centres (USAID, 2014).

One of the famous libraries focusing on children, specifically public school children, is 'Children Library Complex (CLC)' in Lahore. It was established in 1988 by the Government of Punjab. The Quaid-e-Azam library (reference library of Lahore city) initially had a children's section in it. In 1987 this section was separated from this library and shifted to another nearby building. Later it was given the name of Children Library Complex (CLC) (Faiza, n.d.). CLC is offering not only library services but also has activity and hobbies corner. This library serves children from 4 to 14 years of age. The complex equips with the following sections:

- Computer Section
- Hobby Section
- Toy Section
- Audio/Video Section

- Library Section
- Geological Museum
- Global Count Down
- Special Section
- Gymnasium
- Mini Zoo
- Aquarium
- Science Corner

However, according to CLC website statistics (2001) the majority of the children visited Audio/Video and computer section of the complex. Among members, 5,380 children visited library in 2011 and few children (1932) visited hobby section (Children library complex, 2012). The complex is also offering sports and games to the member children. It has two more campuses in other cities of the province Punjab. The complex has developed its liaison with Lahore Zoo, Wildlife Department and Botany Department. The complex's promotional strategy needs to be improved, as researchers' own children are member of complex, but they are never sent any printed material (brochure) or emails.

A survey recommended the establishment of CLC in other cities of Pakistan. Fatima (1989) conducted a survey of children sections' existing facilities and services of the public libraries of important cities of Pakistan. According to the survey libraries located in residential areas were mostly visited by the children. Out of 43 surveyed libraries, 14 were catering the primary educational level of users. This survey reported poor conditions of children's sections' facilities. This survey emphasized the establishment of children's sections in public libraries, enactment of public/children library legislation and training of librarians in children's librarianship.

#### **4.9 Concluding Remarks**

This chapter discussed the background, current situation and statistics of public and private schools of Pakistan, specifically province Punjab, where research sites (Lahore city) are located.

This discussion in the light of literature and statistics is important to understand the background of schools in Pakistan. This chapter also highlighted the role of school teachers and their teaching quality.

The sections 4.6 and 4.7 highlighted the existing situation of school libraries and children services in Public libraries. These sections provide information about missing facilities in libraries, services offered by libraries and problems discussed in the literature.

The chapter also analysed and presented the links or connections of primary educational level curricula with information literacy model (PLUS model). To understand the practice of information literacy, the instructional strategy document of English language curriculum was also analysed above. The chapter is important to understand the overall situation of schools, teachers and libraries in Pakistan and specifically province Punjab due

to the focus of the present study. It provides context for the cases. It will be used as evidence, in particular for situational analysis (chapter 9), and formulating recommendations.

## Chapter 5 : Teachers' Teaching Methods, Learning attitude & Training Sources

### 5.1 Introduction

The results in this chapter will address the first two objectives of the study: to explore information literacy (IL) classroom practices and to seek teachers' teaching methodology in terms of IL instruction. The study also aims to examine the related aspects of information literacy, therefore teaching related themes which emerged will also be discussed here. From the qualitative analysis of data six main themes emerged. However, this chapter will concentrate on results related to themes about teaching methods, teachers' training and teachers' attitude. The analysis is based on data derived from teachers' interviews and children's focus groups. The presentation of results will also include perceptions of teachers about children's knowledge and abilities, and the researcher's observations. These observations were recorded in field notes during, or immediately after, visits to the schools.

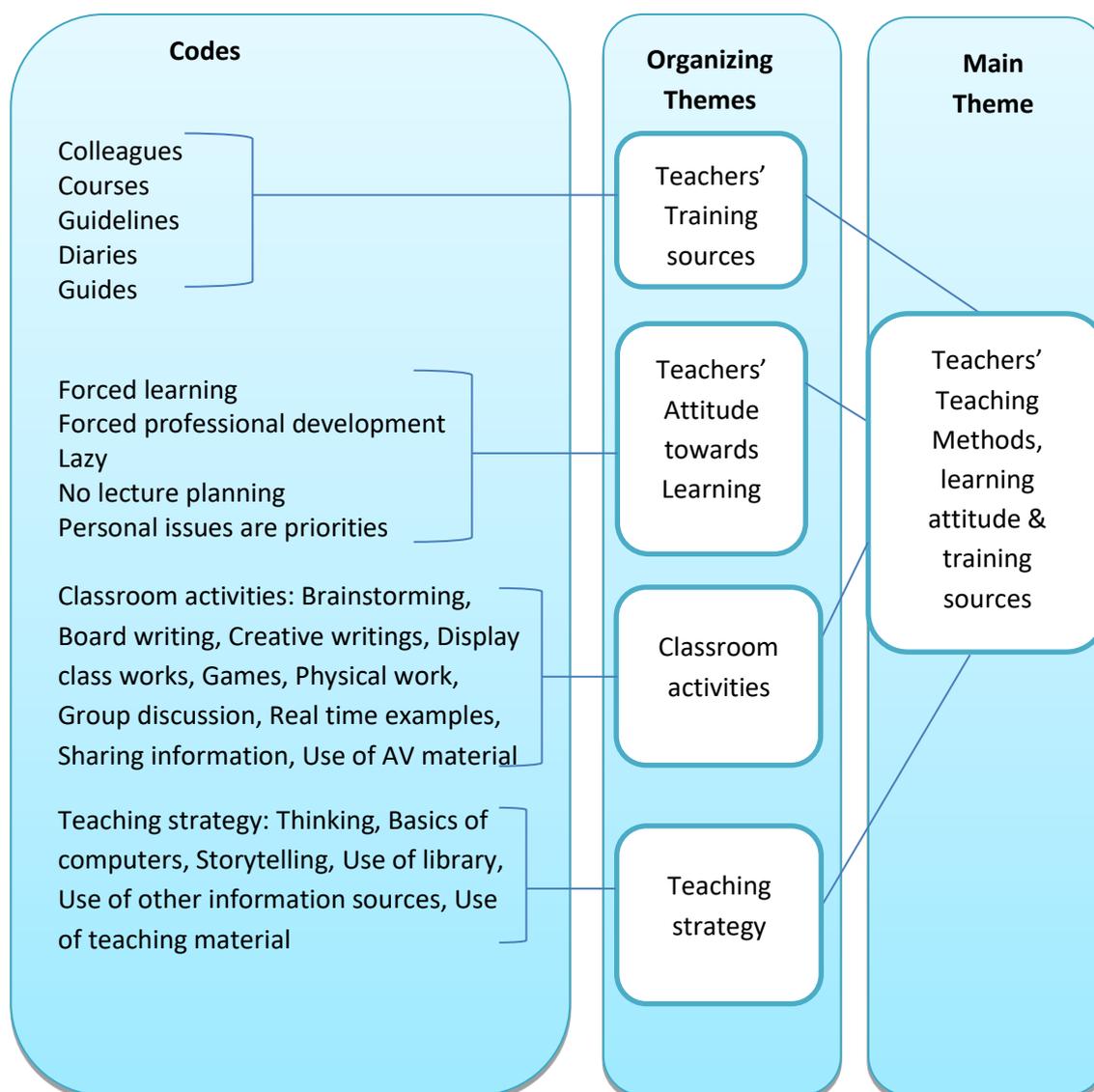


Figure 5.1: Emergence of main theme 'Teachers' teaching methods, learning attitude & training sources

The Figure 5.1 shows the emergence of the main theme, teachers' teaching methods, learning attitude and their training sources. During interviews, teachers were asked about their main teaching strategy, classroom activities and how they prepare their lectures. The children were also investigated about how their teachers teach them. The analysis of results will explore presence and absence of information literacy (IL) components in teachers' teaching strategy and classroom practices of the six selected primary schools. The qualitative software "Nvivo 10" was used to analyse transcripts and build themes. The twelve codes related to teaching/teachers were organized into four subthemes and further organization emerged the main theme. The following sections will discuss the results related to subthemes.

## **5.2 Teaching environment & strategy**

The analysis under this sub theme indicates how teachers are teaching in their classrooms and their basic strategy of teaching primary school children. The main purpose of analysis was to examine the presence of information literacy instruction in these teachers' teaching strategy. The teachers were asked about their basic teaching strategy and similarly children were asked about their teachers' teaching style (Appendix 3 and 6).

In the following paragraphs the overall observed environment of school and classrooms will also be discussed for individual cases.

### **5.2.1 Case One**

Case one is a typical example of public school located in economic lower middle class area of the city of Lahore, Pakistan. Chapter four provides the information and statistics about public schools in Pakistan. This school's physical building was in good condition because this school is situated in one of the big cities (Lahore) of Pakistan. The school's building was very big and had separate junior and senior buildings. The school had a beautiful entrance with playgrounds on both sides. Only the primary section was co-education, as the senior section was only for boys. The classrooms were very big and situated on the first floor of the junior section building. The classrooms were clean and furnished with benches, teachers' chair and table, although some of the benches' legs were broken and wobbling. The classrooms looked so dull with old and dark brown colour furniture. Two or three old charts were displayed on high walls of classrooms, giving information about Prophet Muhammad (PBUH) (a religious song in the praise of Prophet Muhammad) and national heroes.

However, there was a colourful room called the playroom, decorated with small and multi coloured furniture. There were toys, handmade models of Pakistani historical places and colourful charts were displayed. In the front corner, there was a rack of storybooks, carrying multiple copies of the same story books. The researcher conducted all interviews and focus groups in that room. Also there was no library in this school. The teachers' behaviour was very cooperative and they were trying to facilitate during data collection process.

During focus groups, the children looked frightened as they were talking very slowly, even it was difficult to hear them. When they were given activity sheets to fill in, they all were very careful to avoid mistakes. Many times,

they asked researcher for help, whenever they found something difficult. It was observed that in response to questions about their teachers' teaching strategies, they all started praising their teachers and school without understanding the questions.

In this case the grade 1 teacher's highest qualification was masters and she also had professional bachelors' degree (B.Ed.) with 26 years of teaching experience. Mainly, she taught through lectures and focused on curriculum books. She uses the blackboard every day for writing the topic and then asks children to start book reading. She explains basic concepts to them with examples and translates difficult words during her lecture. She was of view that she does this to make sure that children understand all concepts correctly. To involve students, she asks them to come and write on the board, she explained:

*I ask them to come and write on board that build their confidence (Case1C1T).*

The grade 2 teacher had the same qualification and professional degree as the grade 1 teacher, with 25 years of teaching experience. Her teaching strategy included first to raise some questions from the topic and then with the use of blackboard, she starts book reading. She explained that at the end of the lecture, she asks questions and expects response from children, but very few children respond her. She further explained that every topic takes 3-4 days to be covered as children's mental capacity is not much developed at this stage. In response to a question about classroom activities, she said that sometimes she conducts activities given in teacher guides (detailed discussion about teacher guides is given in Chapter 4) but not on a regular basis. She responded:

*Once I was teaching time lesson and I brought a clock from home. I remove its mirror and ask children to practice time by moving hands of clock (Case1C2T).*

### **5.2.2 Case Two**

This school also belongs to the public sector schools. This school is very famous for good studies and high examination scores. Students have to pass an entry test after 5th grade to get admission to this school. Mainly, this is a boys' high school, but the primary section was coeducation. The physical building of the school was very big. The entrance to the primary school was very narrow, however, inside the building, walls were colourfully painted. The school was clean and tidy, although primary section playground was covered with dry grass. The researcher could not get permission for teachers' interviews, however they permitted to conduct focus groups with children. The researcher also could not get a chance to visit classrooms, although, they sent in a room, which was not in use and they stored some old and broken furniture there. When researcher took permission for data collection, the head teacher said she would allow to conduct interviews as well as focus groups. However, on the appointed day, she did not allow to interview the teachers. She said that it is not their school's policy. Therefore, the researcher attempted to collect rich data through observation and field notes.

During focus groups, children talked about a library in their school, so researcher asked head teacher about the library and librarian. She denied that school has a library and said that the children were lying. Later, she said library is closed due to construction for so many years and children never go there. In response to further explanation, she said “ok, there is a media room, maybe they were talking about that room as library”. The media room was very big hall with lots of seating capacity and there was a computer in centre which was attached to the projector. It was also observed that during focus groups, girls were more talkative than boys.

As the researcher could not conduct teachers’ interviews, the data about teaching strategy was reliant on what the children said about their teachers’ teaching. The analysis of children’s transcripts highlighted the fact that teachers in this case were also focused on curriculum books. In response to a question about their teachers’ teaching method, one child mentioned: “from *pictures in our books, she used to draw on board*” (Case2C1FG). However, the data was limited in this case to analyse teaching strategy, but the inherent practice was use of textbooks and their readings, according to the participant children.

### 5.2.3 Case Three

The school in case three was also public school located in an economically upper middle or middle class area of the city. It was a girls’ high school (covers 10 years of education), with very big building and grounds. The physical condition of the building was very good; specifically, the principal’s office was fully furnished and decorated. This school was recommended by Directorate of Staff Development, Punjab. This Directorate is basically responsible for training of school teachers and then they rank schools based on their own criteria and examination. They said that this school had good ranking during the past years. Therefore, it was decided to select the recommended school as it scored good ranking and was located in a high economic area of the city (Lahore). The previous selected schools were mainly located in low economic areas of the city. Also this school had a library so different results might have been expected from this case.

The classrooms were dull and dark with old brown colour furniture. A few old charts were displayed on the classroom walls. The children were trained to be very obedient; when researcher entered the classroom, every child stood up and passed greetings. The in-charge teacher asked, “how much time will you take altogether, I want you to finish as soon as possible”. The teachers’ asked researcher to conduct interviews and focus groups in classrooms. It was explained to them that researcher needs a quiet place, they responded “then you can sit outside in ground as we have no spare room”. There was disturbance around and it was very difficult to hear and record interviews and focus groups.

One teacher, who was very much concerned to know that what researcher was asking from the children, intervened two times during focus groups. She was praising the children and pushed them to answer in the same way as she wanted. She was also giving them hints; in response to a question about teachers’ teaching methods, she intervened “yes *she made flashcards for you and show you pictures..?*” (Case3C2FG). However, the children

were silent, the researcher asked which flashcards?, children were silent, then the teacher probed, “did your teacher show you?”. The girl replied “No”, she clarified “they might be doing with younger children then” (Case3C2FG).

A recurrent practice of using curriculum books in teaching was also indicated in this case. Mainly, the teaching method of these teachers was lecture. The teacher, teaching class 1 was not very experienced, having 5 years of teaching experience but was masters in general and professional subjects. The teaching method was basically focused to cover text books, she also said that use of pictures at this level is very important, she described: “they are very young children, I have to show them pictures, to make sure that they understand correctly” (Case3C1T). She further said to me that she encourages students to speak and also conducts group discussions.

The class 2 teacher was a graduate and had 27 years of teaching experience. This teacher was also focused on covering text books and their reading in class rooms, however she told that sometimes she explains with examples from natural environment. The quote below is an example, she said about teaching a science lesson:

*I taught them about plants, I showed them leaves in school ground and also asked them to observe in parks and grounds near your house (Case3C2T).*

#### **5.2.4 Case Four**

The fourth case was a private school situated in the middle economic class area of the city. It was a trust school and also funded by government organizations. This was a high (covers 10 years of education) co-education school. This school was mainly selected for two reasons as it was different from previous selected cases in its type and geographic area. The school building was small with no playgrounds, however the school had three floors, ground, first and second floor. The school’s outside sign board was very big but looked very old. The school’s gate was very small like a house door and broken. The school was placed on a main road and was disturbed with road traffic noise. In interviews’ recordings this noise can be easily detected. Therefore, it was difficult to recognize participants’ voice in those recordings. The headmaster’s office was also small and furnished with two old chairs and one single sofa. There was a very small storage room in which books were thrown on shelves and floor, the headmaster introduced researcher to this room as library.

The headmaster was keen to appear busy and asked me how much time will you take? During data collection he came many times to say “wind up your work quickly”. The researcher was conducting interviews and focus groups next to his office in an open area. The people in his office were talking, so researcher tried to close his room door due to disturbance, but he again opened the door, without saying anything. During focus groups, it was observed that the participant children from the same class looked very different in their ages, the researcher confirmed this fact from teacher and they admitted.

The teaching strategy was not very different; teachers were using lecture method and covering course books. The class 1 teacher was a secondary school (year 12) part time student herself with one year of teaching experience. She told me that she plans her lesson the day before teaching and prepares herself from different books. The 2<sup>nd</sup> grade teacher has passed secondary school and was teaching for two years. This teacher was also using lecture method, she explained that first she introduces the topic based on her own knowledge to children. Then she starts book reading with children by telling them meanings of difficult English language words. Later, she asks questions; if somebody has a problem, she explains to them again. She said that sometimes to encourage children, she announces prizes. She told that she also encourages them to do work in groups. She further explained that she is conscious to use other books than textbooks in her teaching. She said *"I download material for them"* (Case4C2T). In response to a questions that which websites she used, she responded *"I don't remember now, I did with grade 3 children"*, *"I am not very frequent user"* (Case4C2T). This response contradicts her previous statement that she downloads material for children.

### 5.2.5 Case Five

This school was selected to represent those private schools which are un-registered and located in almost all street sides of cities and rural areas of Pakistan. Like in other cases, this school was also accessed through personal reference. This school was situated in lower middle economic class area. The school was placed in a small rented house. After school time, the school owner runs a tuition centre (academy) for children at the same school place. Almost all school children were attending school in the morning and tuition in the afternoon. For all these activities, the school had three medium size rooms. A single room is further divided and different classes were sitting in a single class room. In addition, there was owner's office, toilet and canteen (a wooden bench with snacks near the entrance door). The researcher was even worried to get a proper place for conducting interviews and focus groups. However, there was a subdivided place called "computer lab" with two old computer systems and sound system, the teacher allowed me to sit there. This place was without doors, so it was a big challenge to conduct interviews and focus groups without outside disturbance. The class teachers were present all the time during focus groups with children. The children of grade 1 and 2 were seated in the same classroom in this school. The whole school children stood when researcher entered to the teaching area, in respect, and passed greetings. There were no doors to classrooms, so researcher's presence interrupted all school children. It was a bit dark and hot inside classrooms due to an electricity failure, however the children were studying.

The teachers of this school were secondary school (year 10, year 11) passed in their qualification. The grade 1 teacher had only 3 months and grade 2 teacher had 6 years of teaching experience. The grade 1 teacher said that she starts her lecture by saying *"open books and then I write on whiteboard"* (Case5CIT). The grade 2 teacher was also focused on covering course books, however she expressed that she attends all children during class, otherwise she feels that one cannot be sure that children have grasped the concepts clearly. She told that she also

encourages students to ask questions. In response to a question from teachers about how they do lesson planning, teachers responded: *“mostly I use books” (Case5C2T), “from my own mind” (Case5C1T).*

### 5.2.6 Case Six

This school belongs to the elite economic class private schools of Pakistan. The background of these schools is discussed in detail in chapter 4. This school was also accessed through personal reference. This selected school is very famous and has many branches in Lahore and other cities of Pakistan. This primary school’ girls branch was located in the elite economic class area of the city (Lahore). Permission for collecting data was sought by telephone from the branch head. The branch head (head teacher) was briefed about the details of conducting interviews and focus groups. The school building had two spacious floors with a playground and proper canteen. It was clean, fully decorated with colourful wall paintings. First, researcher had to meet the branch head before collecting data. So, researcher went to her office; it had a tidy look. Then she asked about present study’s aims and objectives.

The researcher described and also showed interview and focus group guides and activity sheets. She found them interesting, but was of the view that children of grade 1 and 2 may not be able to fill those sheets. She expressed her wish that researcher should share the study results with her. The teachers were very cooperative and everybody was interested to know about present study’s aim when researcher was waiting in the teachers’ common room. At the open area near playground some teachers and students were busy in making some models in a very happy mood. The classrooms were decorated with colourful charts, carpets, and stuffed toys, and they were furnished. The participant children were very confident, talkative and everyone from the class wanted to be a participant. However, researcher could not get a proper place to collect data, so data was collected from children outside the library and with teachers in corridors.

The participant teachers were English language teachers. In this school, subject teachers were teaching to all grades unlike public schools, where a class teacher was teaching all subjects. The head teacher recommended interviewing English language teachers. Also the English language curriculum was found to have information literacy (IL) provisions (see chapter 4), therefore these teachers were selected. The grade 1 teacher was masters in English language, had passed an English language teaching course and had 5 years of teaching experience. This teacher highlighted that she conducts brainstorming sessions before starting book reading, she told *“I always give them brainstorming sessions...I extract ideas and discuss about things which generally create an environment” (Case6C1T).*

The grade 2 teacher was masters in Fashion Designing and had seven years of teaching experience. The teachers in this case were also focused on curriculum books but they were using different teaching methods. In addition to lectures, they were conducting activities, games and group discussions. It was also found that they were building thinking skills among children. These teachers planned their lessons properly, because their lesson planning had to

be approved by head teachers. The librarian/library teacher during her interview referred to the computing teacher, therefore in this case the researcher conducted interviews with three teachers in total.

### **5.3 Use of instructional material**

This section discusses the results related to the use of instructional material. The instructional materials include teaching material (for example black board, charts, models) and the teacher guides/ diaries provided by the school. During interviews, when teachers were asked about their teaching methods, they also highlighted the material they used to support their teaching. The children also mentioned instructional material used by their teachers during class lectures. However, the information sources other than text books and instructional material they used in their teaching will be discussed in section 5.4. The following sections will discuss the results of individual cases.

#### **5.3.1 Case One**

In case one the most used teaching material was the blackboard and some displayed charts.

During focus groups, one child added that his teacher uses “*books, pens and copies*” (Case1C2FG). While discussing this issue, the grade 1 teacher admitted that although there are instructions from government to use charts, pictures, models etc. she was not following those instructions.

The class 2 teacher said that she uses the English language teacher’ guide to support her teaching. This teacher mentioned that sometime she made charts to explain some topics, she responded:

*I pasted car pictures on a chart as boys have their interests in cars.... (Case1C2T).*

#### **5.3.2 Case Two**

In case two, mostly the teachers were using the blackboard, evidenced in a response to a question, how your teacher teaches you, one child said: “*with blackboard*” (Case2C1FG). Also from focus group transcripts, it was not indicated that children were familiar with other teaching materials. It seems that teachers were using pictures from books and drawing pictures on the board to show them examples.

#### **5.3.3 Case Three**

The teaching materials used by these teachers were pictures, chart papers, models. The class 1 teacher added that she is also using class worksheets. The class 1 teacher was regularly using teacher guides for lesson planning. However, the main focus of both teachers was to cover curriculum books as class 2 teacher said: “*I used activities given in their books, there are many activities*” (Case3C2T).

#### **5.3.4 Case Four**

In case four, the class 1 teacher was not using any other teaching material other than blackboard and course books. However, the grade 2 teacher said that sometimes she uses activity material like balloons, flashcards to teach mathematical concepts. It was indicated from results that the use of teaching material was not part of their

regular teaching practice. These teachers did not mention about the use of teacher guides or other instructional material.

### 5.3.5 Case Five

The most widely used teaching material in this case was the whiteboard. Teachers were using a dictionary when they did not understand any word, although this did not happen on a regular basis, and also magazine pictures and charts as teaching material. It was not found that teachers were using guides and other instructional material to support their teaching.

### 5.3.6 Case Six

It was found that case six teachers were using variety of teaching material, as they mentioned the use of whiteboard, multimedia, audio/video material and worksheets. They also said that the curriculum is planned, it seems that use of teaching material was also integrated into the curriculum. However, they did not mention that use of multimedia and audio/video material was their regular practice, but, rather, use of worksheets was their daily practice. Some examples are discussed in section 5.4.

## 5.4 Use of information sources in teaching

This code emerged from the teachers' interviews, when they were asked about their teaching strategy and use of information sources in their teaching. They mentioned different information sources other than text books to support their teaching.

### 5.4.1 Case One

In case one, the teachers were focused on curriculum books, so no other information sources were mentioned by these teachers. However, the class 2 teacher said that she uses a dictionary during lesson preparation. The class 1 teacher explained "in new curriculum books, we have teaching guidelines and we also have teacher guides, so we do not need to use other sources" (Case1C1T).

The teacher who was more qualified than other teachers, thought that their knowledge is enough to teach primary school children. In response to a question about whether she uses other books to support her teaching, the teacher said:

*Just see I have done masters and I am teaching primary children, so the knowledge I have is enough as I am not teaching masters or PhD class (Case1C2T).*

### 5.4.2 Case Two

In case two evidence of using other information sources can only be obtained from focus groups because teachers' interviews were missing. The children's focus groups data showed the level of their familiarity with other information sources. They mentioned a few information sources for example newspapers and dictionaries.

However, the dictionaries were in use of their elder brothers and sisters. They were not familiar with the use of these sources. So it can be concluded that their teachers were not using other information sources in teaching.

#### 5.4.3 Case Three

Here only one teacher mentioned that she is using internet to teach different subjects (Case3CIT). The class 2 teacher was not using any other information sources to support her teaching. Even in the children's transcripts there was no evidence that their teachers were using other sources to teach them. In this case school had a working library and librarian, but these teachers were focused on textbook reading.

#### 5.4.4 Case Four

There was no evidence that teachers in this case were using information sources other than text books. The grade 2 teacher mentioned the use of internet in her teaching, however on further explanation of used websites, she was not able to mention any website. She was using her own knowledge to further add and explain during lectures. These teachers mentioned that there is a school library without a librarian, but did not mention the use of the library in their teaching.

#### 5.4.5 Case Five

A very limited and need-based use of other information resources was indicated in teachers' lesson planning. For example, a dictionary was used by the grade 2 teacher for her lecture preparation.

"Mostly I use books, if I couldn't understand anything then I use dictionary" (Case5C2T). A similar finding was indicated when grade 1 teacher mentioned "if there is any exercise in course books that requires use of material, only then I use" (Case5CIT).

It was also found that these teachers thought at primary level, they do not need to consult other information sources, one teacher described: "*No they are very young, only books are enough for them*" (Case6C2T).

#### 5.4.6 Case Six

The use of other information sources was not found in teachers' teaching practice. They were using dictionaries only to get help in preparing comprehension exercises. However, the grade 1 teacher mentioned the use of relevant library books, she said:

*Yes sometimes I show them some books from library that this is farm and this is pony... (Case6C1T).*

This shows that the use of library in teaching was limited, the teacher did not use those books in class or did not give any assignment from books. In response to a question about the use of library and collaboration with librarian, the same teacher answered:

*No, not as such. At this level we are not giving them such assignments (Case6C1T).*

## 5.5 Classroom activities

The analysis of results under this coding will mainly answer the study's research question "how are teachers applying IL in the classroom?". The participants were asked about their classroom activities other than reading course books. The teachers were asked what they do to involve children in activities. The answers to these questions will also reveal the information literacy instruction practice within classroom.

### 5.5.1 Case One

When case one teachers were asked about classroom activities, the class one teacher misconceived the word activities with physical work or physical games. She described *"Yes, I give them assignments, not necessarily during lecture, otherwise I involve them in classroom seating arrangement. If sweeper is absent, I ask them for dusting, to save time....."* (Case1C1T). In response to further explanation, she responded: *"Yes I do many activities for example I taught them action words with actions....."* (Case1C1T).

The results of case one indicated very limited classroom activities for example board writing, indoor games, questioning and storytelling. However, even these activities were not conducted at regular basis as child responded: *"Yes once she told us a story"* (Case1C2FG). In response to a question about activities, another child from same focus group replied: *"Once she asked to make a circle and.....mmm...(trying to think).....asked to make boxes, who will do this task, he/she would win"* (Case1C2FG).

### 5.5.2 Case Two

From focus group data, only a few classroom and outside classroom activities can come into discussion. Children mentioned that sometimes their teacher takes them to the multimedia room to watch cartoons. While answering to a question, one child said that her teacher told them stories. I asked them to recall any story and they started singing poems. It is interesting to note that children were not even familiar with stories.

### 5.5.3 Case Three

In case three, the class one teacher perceived that through activities children learn better, she described *"children learn more from activities.....they show interest in activities"* (Case3C1T). This teacher was conducting some classroom activities including working on worksheets, storytelling, using newspaper pictures and acting on story characters. She was also practicing creative writing in classroom and giving homework, she explained *"I ask them to bring pictures of your family members..... paste pictures and write about those"* (Case3C1T). This teacher was also developing children's thinking skills, she said that through hints, she asks children to write stories. She also encouraged group discussion in classrooms. She further mentioned that sometimes children also watch cartoons in kids' room. It seems that there was also a multimedia room or audio/video arrangement in the school. The class two teacher was not much involved in conducting activities; however, sometimes during lecture, she showed them examples from the natural environment.

#### 5.5.4 Case Four

The class 1 teacher was not involved in conducting any classroom activities. In response to activities-related questions, she explained that she reads poems with actions with children. The class 2 teacher, though, mentioned the activity she conducted with balloons and the use of flash cards in mathematics. It was also observed that classroom activities were not regular in their teaching practice.

#### 5.5.5 Case Five

In this case both teachers misconceived the word “activities” with physical exercise and physical games. . In response to a question related classroom activities they said: *“there is an exercise in morning” (Case5C1T)*, *“yes when we have time, we do some games” (Case5C2T)*. Storytelling from course books was also indicated but only when children have free time, *“yes sometimes teacher told me, those stories are from my school books” (Case5C2FG)*.

#### 5.5.6 Case Six

In this case teachers involved children in various classroom activities. From results it was found that classroom activities included creative writing, brainstorming, games (word games, puzzles etc.), playing as English novel characters, thinking (during creative writing, children had to think about next parts of the given stories and then to organize in sequence), sharing work with other class children, using worksheets and watching movies. It seems that, although teachers were focused on curriculum books, they were making class work interesting through activities.

### 5.6 Teachers’ Attitude towards Learning

This theme basically emerged from teachers’ responses. It is important here to look at all related aspects of teachers’ teaching, so that a holistic picture of the situation can be depicted. When teachers were asked about their teaching methods and use of instructional material, the results showed their attitude towards learning and teaching. The perceptions of teachers about school children’s learning competencies will also be discussed in the following sections.

#### 5.6.1 Case One

In this case, the class one teacher justified herself that she cannot conduct classroom activities regularly because, she elaborated: *“But not in routine as we have to go home and look after our own children. We do not have time” (Case1C1T)*. It seems that late in their careers, they found teaching is an easy job to earn money with less working hours. Both teachers’ of class 1 and 2 were using displayed charts (which were old and very few) in their teaching. Another aspect of teachers’ attitude came during analysis, as it emerged that they were forcibly involved in their professional development. The class one teacher mentioned that she makes charts and models during her professional training, she said *“no one can spend extra time on chart making, during training we have to do...” (Case1C1T)*. In response to a question about use of computers, she responded: *“I learnt as part of training but then didn’t take much interest”*. (Case1C1T).

In response to a question about students, who are weak academically and less participative, teachers thought that these children are weak due to their poor circumstances, their mental capacity is not very much developed at this stage and they are afraid to be wrong. These teachers were of view that primary level children's mental capacity is limited and they cannot understand difficult concepts. The following extracted quotes are examples of their views: *Children do not know the concepts in this age.....sometimes their domestic issues disturb them(Case1CIT). Yes but each topic needs revision for 3-4 days because their mental capacity is not very developed at this stage (Case6C2T).*

### 5.6.2 Case Three

No coding was indicated to show teachers' attitude in this case. The observation based findings showed that the attitude of class one teacher was relatively positive towards teaching. She thought learning should be activity based. The class two teacher had a traditional teaching style and was focused to cover curriculum books.

### 5.6.3 Case Four

The both teachers in this case were studying or passed secondary school education. They were young with 1 or 2 years of teaching experience. However, their attitude was not very different from the more educated and experienced teachers. The grade 1 teacher used to plan her lecture just a day before, this indicated no lesson planning. She said that she never visited the library to prepare her lecture. It was also found that she used to force children to learn, she said *"children have their own interests but I only tell them that you have to do this work"* (Case4C1T). The findings showed lethargic attitude of teachers towards their teaching.

### 5.6.4 Case Five

A sluggish and compulsory learning attitude was indicated among these teachers. They were not motivated to do better and to develop their career in teaching. In response to a question about use of computer, a teacher said: *"I don't have interest"* (Case5C2T). The forced learning attitude was also observed towards children. On issue about shy or less confident children, teacher said: *".....definitely I have to harsh with them"* (Case5CIT), *"I expect from them to answer my question"* (Case5CIT).

In response to questions about children's abilities, the grade 2 teacher argued that some children are naturally weak and they take time to understand things. However, she added that children learn from their observations and share those things with their fellows.

### 5.6.5 Case Six

Overall findings show that in this case, teachers had a positive attitude towards teaching. They did not complain about their available school resources and personal issues. They also were involved in proper lesson planning. They were also trying to make their teaching interesting and better. However, the teachers' perceptions about primary level (grade 1 and 2) children were not very different from other school teachers. They were of view that these children are very young to use the internet and to give information-finding exercises.

*No we do not use Google at this stage, they are very young... (Case6C1T).*

*No, not as such, at this level we are not giving them such assignments (Case6C2T).*

In response to a question about making sequence of information teacher said: *"No actually, they are too young for that"* (Case6C1T). On the same issue, the computing teacher was of the view *"grade 1 and 2 children do not have much understanding of the internet"* (Case6CompT).

The grade 2 teacher perceived that children lack ability to understand information, she argued *"most of the students are not able to catch the information because it is not practised by us"* (Case6C2T).

## **5.7 Teachers' Training Sources**

It is also important to discuss the teachers' training sources or how they keep themselves updated. Teachers' training plays significant role in keeping them up-to-date and motivated. This subtheme emerged from teachers' transcripts, they mentioned some training ways and methods. The purpose of analysis here was also to highlight IL components in their training methods and contents. No data was relevant to this theme for Case 2 (where teachers could not be interviewed).

### **5.7.1 Case One**

The case one teachers mentioned that refresher courses are offered by government regularly for public school teachers. The course attended by the class one teacher was about basics of computing. It seems that some training courses had IT components which are necessary for information literacy instruction. However, the teachers learnt these skills as a part of training but did not practice in their teaching. Teachers have to write their diaries in which they have to mention topics taught, how they taught and students' learning outcomes. The class one teacher explained that for the reason of writing diaries, they have to consult teacher guides.

She further said that teacher guides and guidelines in new books are very useful for training.

So teachers' guides are also teacher training sources according to teachers.

### **5.7.2 Case Three**

It seems that these teachers were involved in professional training in the near past. The class one teacher pointed out that their school principal arranges courses and programs for better teaching. The class two teacher also mentioned school training programs, she elaborated *"Yes sometimes trainers show us many activities to plan and act"* (Case3C2T). Teachers were also taking guidance from their senior colleagues about how to teach better (Case3C1T). This school was involved in arranging teachers' training programmes and motivating them for better teaching.

### 5.7.3 Case Four

In case four, teachers did not mention any professional training or courses arranged for them. Both teachers were untrained and not getting any teaching training. It seems that school library also had no books on teachers' instructional methods, as teachers had to consult sample books provided by vendors. One teacher mentioned "yes, there are sample books from publishers" (Case4C2T).

### 5.7.4 Case Five

In this case teachers did not mention training opportunities and courses, they were currently or previously involved in. They were not using any teacher guides or instructional material.

### 5.7.5 Case Six

The school teachers of case six did not talk about any training courses and programs offered to them previously. They were also not using any instructional material or guides to support their teaching. However, the grade 1 teacher had professional qualification in English language teaching. It seems that these teachers were supervised by their head teachers in terms of lesson planning and teaching methods, since these teachers mentioned that their lesson planning had to be checked and approved by heads based on a certain criteria.

## 5.8 Concluding Remarks

This chapter presented the results related to teachers' teaching methods, their classroom instruction practices, their learning attitude and their training opportunities (Figure 5.2). It was analysed to explore the information literacy (IL) components in their pedagogy, such as how they are teaching, are they giving information finding exercises, are their teaching methods incorporating IL components etc. It was found that teaching purpose was to cover the whole textbook through reading within class. However, the elite economic class private school teachers were incorporating many classroom activities and some information finding and information sequencing exercises.

The majority of the teacher participants were using blackboards as their main instructional material. The findings reported very limited use of a variety of teaching material as only one interviewee mentioned that once she used balloons and flashcards for mathematical understanding of students. Similarly, one respondent said that sometimes she used pictures from newspapers and magazines in her teaching.

The selected schools' classroom activities included: board writing, brainstorming, creative writing, display of class works, games, group discussion, physical work, play acts, questioning, real time examples, sharing, thinking, use of A/V material and use of their background knowledge. It was found that some teachers misconceived the term "activities". Teachers' were relating the word "activities" with physical work. In response to a question that what classroom activities they do in class, some teachers' responded:

*"I used to read poems with actions....." (Case4C1T).*

The results related to teaching attitude showed lack of motivation to innovate teaching methods , no lesson planning and approach of forcing children to learn. The subsections of the chapter also highlighted teachers' conceptions of school children.

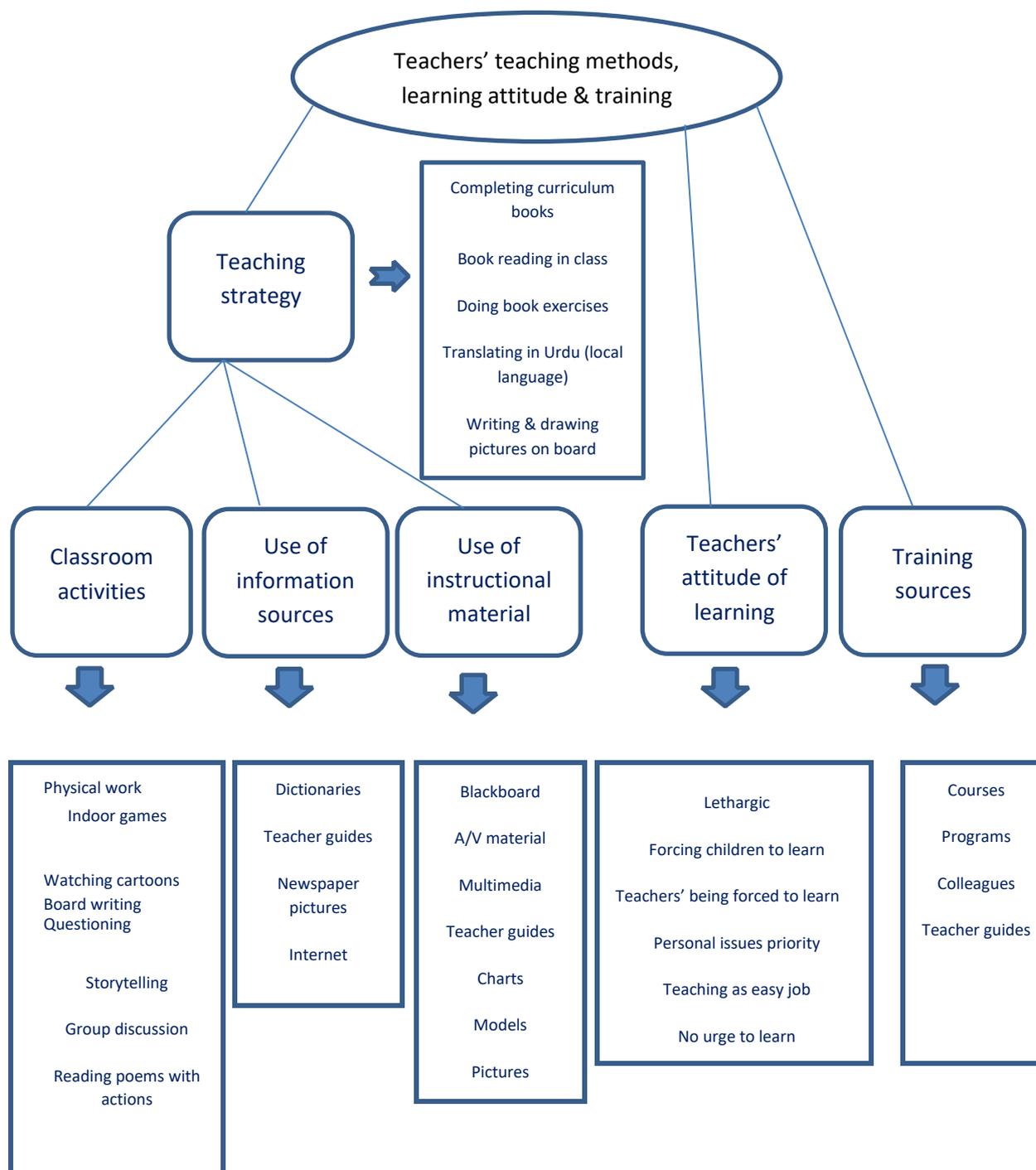


Figure 5.2: Selected schools teaching methods, teachers' learning attitude & Training

## Chapter 6 : Role of School Library and Librarian

### 6.1 Introduction

This chapter provides the results about the role of school libraries and librarians in the six selected cases. Although only three selected cases of schools had libraries among those, one school had a professional librarian, one had someone with no library training and one library had no-one responsible for the library. The findings will achieve the third objective of the study which is to investigate role of library and librarian in terms of information literacy (IL) instruction. The analysis of results will explore the IL related library practice and the role of librarian. This chapter will mainly discuss the main theme “school libraries” and subthemes, conceptions of library, library operations, library services and library problems.

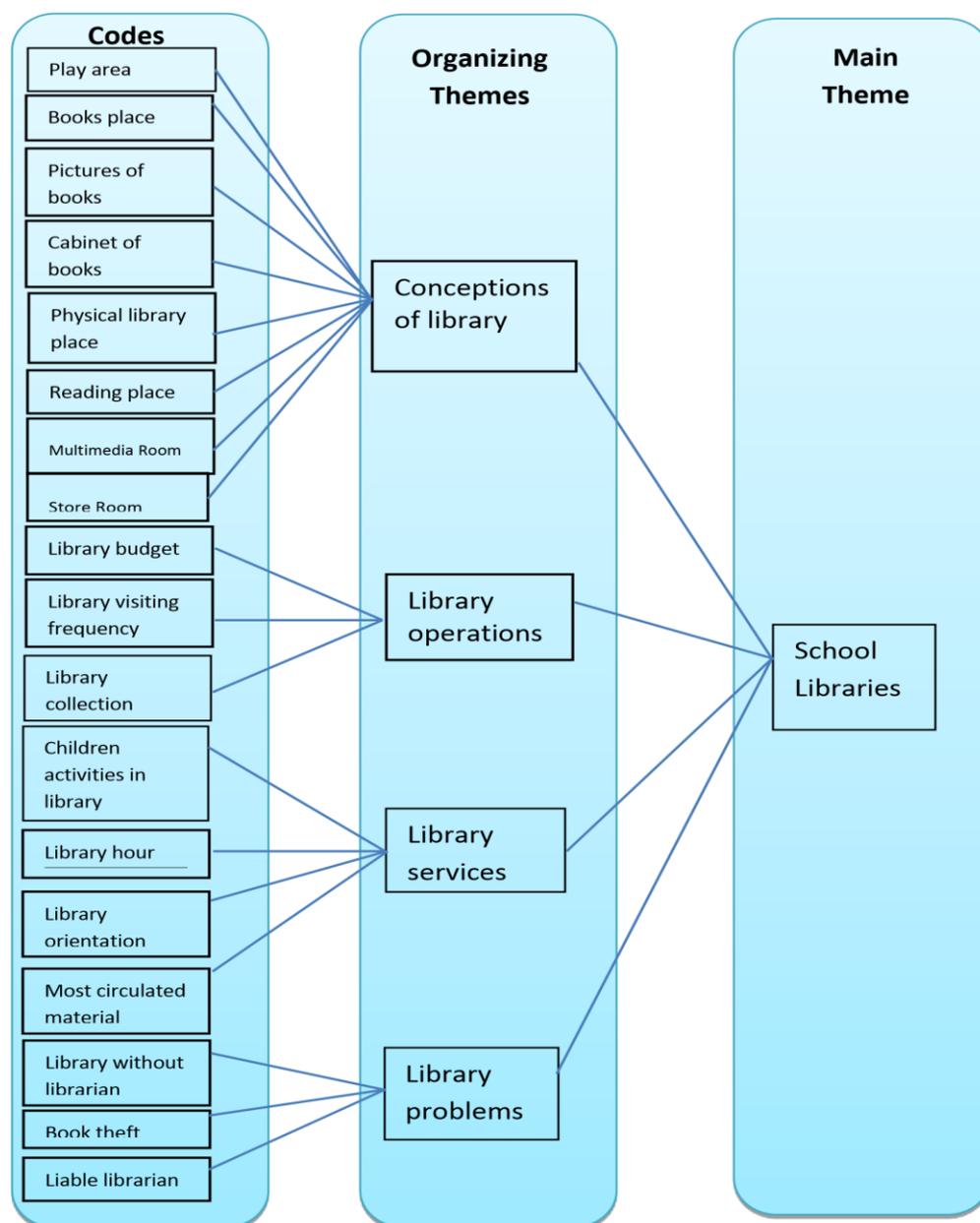


Figure 6.1: Thematic analysis of theme “school libraries

## 6.2 School Libraries

The figure 6.1 shows the emergence of the main theme, school libraries. This theme has mainly emerged from librarians' interviews and children's focus groups' transcripts. Only a few teachers mentioned the use and importance of libraries in their interviews. Among six selected cases of schools, three schools had libraries. Out of those three libraries, one library was without librarian. The 15 selected codes (Figure 6.1) organized into four subthemes, those were resulted as a main theme 'school libraries'. The schools which had no library, their participants expressed their wish for library and also their conceptions of library will be discussed in the following sections.

### 6.2.1 Case One

This school had no library, therefore the respondents were asked about their conceptions of libraries and do they want a library in their school. However, there was a kids' room in this school, which the researcher also utilized for data collection purpose. The room was very big furnished with colourful furniture and carpets. It was also decorated with some stuffed toys and handmade models of Pakistan's historical and religious places (Fig. 6.2). In the room, displayed charts were giving information about government's awareness schemes (Fig. 6.3) of health literacy. In the front corner, there was a book rack holding multiple copies of old story books (Fig.6.4).



Figure 6.2: Case One Play Room



Dengue fever could cause high fever and severe body pain

Figure 6.3: Case one view of displayed charts



Figure 6.4: Case One, Multiple copies of old story books

The class fellows of study participant children were looking into the playroom (where researcher was collecting data) from outside, as they wanted to come in. When researcher asked them to come, they said we are not allowed to come in this room. They also said that this room is used to be locked.

The participant children conceived of a library as a reading place, rack of books, picture of books and a place with books. Out of 5 children of class 2, only two children had seen a physical library. The quotes below describe their conceptions of the library, when they were asked about library and where they saw it or what it looks like:

*At my home, books of my elder sister (Case1C1FG).*

*Made of books (Case1C2FG).*

*Another child said: at my grandmother's house (Case1C1FG).*

*Another added: we read books there (Case1C1FG).*

All the children expressed their wish to read storybooks if they had a library in their school. The children of grade 2 also desired to have library in their school.

### 6.2.2 Case Two

This school had no library either but had a big multimedia room. The children of grade 1 never visited any library and they were not sure about what it looks like. In response to a question that ever you see library in pictures or television, one child said: "LCD" (Case2C1FG). On further explanation, children became silent. One

of the interesting findings in this case was that during class 2 focus group, children explained that there is a library in their school where they go daily. Out of four children, three said yes they have a school library. The researcher asked when you go there, one child said *"when we have time"* (Case2C2FG). The researcher again probed, who takes you there? child said *"teacher"* (Case2C2FG). To find out more, it was asked what you do there? child replied *"we play there"* (Case2C2FG). They also mentioned that they take storybooks from library and their teacher issue books to them. In response to one question that how you take books from library, one child replied *"first we say may I come in, ask for storybooks and then she give"* (Case2C2FG). These children also expressed that they like to go to library. After focus groups the researcher asked school head teacher for library visit, she denied that school had a library. The researcher explained to her that children talked about library, she said *"they are lying"*. To further explain she added *"school library is closed for construction and these children never went to school library"*. The head teacher said *"we have a multimedia room, maybe these children thought that room as library"*. The researcher visited that room, it was a big room with colourful curtains, one computer was attached to a multimedia projector and benches were arranged for sitting purpose. However, it was observed that there were no books or storybooks in that room.

### 6.2.3 Case Three

This school had a library run by professional librarian. The children of this school physically visited their school's library and one child mentioned that she saw another library near hospital. The subthemes which emerged from case three are discussed below:

#### 6.2.3.1 Librarian role

The librarian designation was assistant librarian, she was professional and had a bachelor in library and information science. However, she was sitting in a classroom and teaching children. During break time, she called researcher to conduct the interview. She elaborated that she is teaching more than doing librarian work. She teaches class 6, 7, Nursery and Kindergarten. She explained that when she teaches, somebody (teacher) replaced her in the library. However, she was only involved in accessioning and purchasing of library material. In response to a question about purchase policy she said: *"I went to bookshop after checking duplication, I buy new books, mostly of science and maths"* (Case3ALib). The librarian told the researcher that she has nothing to do with budget, she elaborated: *"I don't know, my principal knows about it, I just buy books"* (Case3ALib). One teacher also mentioned about the librarian that, *"she read storybooks for children"* (Case3C1T).

#### 6.2.4 Library visit frequency & services

The participant teachers said that children visit the library with their class teacher and the librarian conducts storytelling sessions. In response to a question about frequency of visiting the school library, children explained that sometimes they go to the library. However, one child said *"No we don't go there"*

(Case3C1FG). Another child mentioned *“only younger children go there”* (Case3C2FG). In response to a question about library visits, the librarian explained:

*We have 58 sections from nursery to grade 10. So we divide in this way, because government made compulsory library period from grade 6. So the first week is for primary and there are 6 periods, but Friday is only for nursery classes. So now we have total 5 days, every class has its turn once in a week. This ratio increased for higher classes* (Case3ALib).

It seems that grade 1 and 2 did not visit the library regularly. However, the teacher said while talking about library visit *“yes...once in a week”* (Case3C1T). In response to questions about library hour and library services teachers and children could not highlight very useful library hour practice and library services. The teacher said: *“those children who want to read themselves, they share story with their group, for one hour they used to be in library and see pictures in books”* (Case3C1T). It also came up from data that during library hour children do not always do book reading, one child said: *“if teacher says then we take books, otherwise we sit quiet”* (Case3C1FG). The same issue highlighted by another child *“we only went to visit library”* (Case3C2FG).

However, the librarian while talking about services mentioned that for young children she conducts colouring activities and storytelling sessions. For grade 1 and 2, she gives them storybooks. The librarian instructs children to note down difficult words and ask for meanings. While talking about storytelling, the librarian expressed: *“Yes they ask it to do every day, kids really love to come in library”* (Case3ALib). The librarian was of view that *“children should use library regularly, should not care about book damage”* (Case3ALib).

#### **6.2.4.1 Library Collection**

The researcher did not get a chance to visit library, as they did not allow. The librarian said that total library collection is 11000 and there is a reference section in the library including dictionaries, maps and encyclopaedias. She mentioned that sometimes they also get books (story books, activity books and English books) from the government. *“For younger children we have separate cabinet of old storybooks of prince and princess because most of them like those”* (Case3ALib) mentioned by school librarian.

About the most circulated material, the librarian said: *“most circulated material is novel, elder children usually demand novels specifically romantic novels”* (Case3ALib). The younger children like to read storybooks. It seems that library had very old collection of story books as one child mentioned *“I read raja rani (prince, princess) story books”* (Case3C1FG). While talking about library hour, teacher mentioned: *“children know many story books as they read many times”* (Case3C1T). It seems that library did not have appropriate storybooks collection.

#### 6.2.4.2 Library Orientation

The librarian mentioned that she tells students how to use library. The library orientation session was about telling students what they were not allowed to do in library, the librarian said:

*Yes I don't allow them to bring pen and pencils, we don't allow them to tear books, and the teacher who comes with children looks after them completely (Case3ALib).*

#### 6.2.4.3 Library Organization

The library material was organized according to Dewey Decimal Classification Scheme, mentioned by school librarian. The librarian arranges books herself and asks users to leave the books on the tables while leaving the library. The librarian was in the process of automating the library, she said she has done almost half of the collection.

#### 6.2.4.4 Library Users

The school library was mostly used by school children. The teachers were also using library but not on regular basis. To evidence this, Librarian also mentioned that they issue books to teachers for one week, but she said: "only few teachers take interest, nobody loves books here" (Case3ALib).

#### 6.2.5 Case Four

This case is an example of such school where the school library was without a librarian. The description of the library is very interesting to know. The researcher asked the head to visit school library. The researcher visited a very small room on ground floor, where books were scattered on its shelves and on the floor. The room was so small that it was very hard to even stand in that room with scattered book on the floor. The school head mentioned that it is their library and they have to allocate one room for library to show government representatives during audit days. However, children told me that their library is upstairs, but the researcher was not given a chance to visit other floors.

During focus groups children also talked about their school library. One child described: "*there are books in library and registers*" (Case4C1FG). Another child said: "*there are story books and school books*" (Case4C2FG). Some statements are extracted in response to a question, when they go and who take them library, they said:

*We read there (Case4C2FG)*

*We go there at 12.00 (Case4C2FG)*

*We only go there to put books of our previous classes (Case4C1FG)*

*Sometimes we go in a group and sometimes we go with teacher and we read library and school books there (Case4C2FG).*

It seems that maybe there was a storeroom of books upstairs like the one on the ground floor and children perceive it as a library. The room was to store old registers and books, therefore children said that they store their old books and holiday homework registers into that room. That room was also used as sick and a

punishment room, one child described: “if somebody had headache then teacher asks to go to library and if somebody did not learn the lesson then she asks to go there and learn alone” (Case4C2FG). The children also explained that they did not borrow books from library, they only read within library. So the library was a store room to house old books and sometimes children visited that room to read story books. There was no body to look after that library, the teacher explained “No librarian, we are familiar from books because during summer vacations we arrange the books” (Case4C2T). However, the children liked the library as a place because it was a quiet room.

### 6.2.6 Case Five

The school was housed in a small rented building without library facility. The teachers expressed their wish to have library facility in their school. They responded that if they have library, they will consult other books and read story books. The grade 1 teacher expressed in this way “yes there is a lot of information, when I was child, I used to go library and used to consult other books” (Case5C1T).

However, teachers were of view that for grade 1 and 2 children, school books are enough to consult. During focus groups children could not express their conceptions of library, they remained silent on question about what is a library. It seems that these children had no concept of library, maybe they were not familiar with the word “library” as they were silent and started looking at their teacher’s face.

### 6.2.7 Case Six

This school had a proper library run by library teacher who had no library training. There was a small but colourful library in the school. The books were properly organized using broader Dewey Decimal Classification system (Figures 6.5, 6.6) and further by colours to separate reading levels. The library had the latest books (Figure 6.6), reference books and some audio-video collection as well. The library teacher looked very busy and occupied with children. There was a modern computer lab in the school which was supervised by the computer teacher.



Figure 6.5: Case six library books on history



Figure 6.6: Library book shelve showing English language novels

### 6.2.7.1 Library Teacher' Role

The library teacher was lawyer by profession. However, she was doing this job because, she said: *"I joined school because I have little kids, so I need to give them time"* (Case6ALib). She was of view that school timings suit her. She explained that the library was organized when she joined and she found this work interesting. It seems that the school had a professional librarian previously, who arranged the library. She said that she is maintaining an accession register in a computer file and later she printed out to make file (Figure 6.7).

ISS NO	TITLE	AUTHOR	PUBLISHER	SUBJECT	CALL NO
1	OWEN	Kevin Henkes	Red Fox	Eng	F823HEN
2	In the Cave	Felicity Hopkin	Oxford	Eng	TR 420HOP
3	June B. Jones is Captain Read Day	Barbara Park	Random House	Eng	F823PAR
4	Jet Black Pickup Truck	Patricia Lakin	Orchard	Eng	F823LAK
5	Look at this	W. Murray	Lady Bird	Eng	F823LAD
6	Mary And Her Basket	D. H. Howe	Oxford	ENG	F823HOW
7	An apple for the monkey	Felicity Hopkins	Oxford	Eng	TR420HOP
8	Hansel and Gretel	Eric Kincaid	Brimax	Eng	F823KIN
9	Rhymes to sing and play		Macmillan	Eng	821MAC
10	The Harvest	Adam Coleman	John Murray	Eng	F823COL
11	Six o'clock Tales	Enid Blyton	Mammoth	Eng	F823BLY
12	Topsy and Tim go to the doctor	Jean and Gareth Adamson	Lady Bird	Eng	F823TTI
13	Peter the Pig	Hidrun Covi	W.F. Graham	Eng	F823PPT
14	Peter the Pig	Hidrun Covi	W.F. Graham	Eng	TR420HOW

Figure 6.7: Library accession register

She was also teaching English reading and conversation. Basically, she was running their reading program (Figure 6.8). She explained: *"children bring their specified books in library and then we read, I read one or two pages and then they read one by one"* (Case6ALib).



Figure 6.8 Case six Reading program poster

She further explained that she writes difficult words on a whiteboard, the objective of this practice was to learn new words and to correct English language accent of school children. Sometimes, she asks questions from children about that assigned book (mentioned above). She also issues other library books to children according to their reading level. In response to a question about how she organized books, she became confused and said:

No no they have...evvv....you can see they are different and every cupboard has different and books have stickers also, dark blue, orange, yellow.....all classes have different colours on the stickers (Case6ALib).

The school administration bought books for the library, the library teacher had nothing to do with the book purchase. The library teacher said that mostly school administration bought from vendors. The library teacher was not aware of different parts of the books. In response to a question about table of contents, index, glossary, she misperceived and said: "we have a file which we maintain in computer, so we can go through the file and found any book through file" (Case6ALib). She also responded to a question about the use of other information sources such as encyclopaedias, atlases:

No no for that I am not concerned.....what they are doing at home....English teacher do the written work and all that.....(Case6ALib).

In response to a question "do you give them any information finding exercise", she explained:

*I asked administration to involve children in some written work, but they said we don't want that (Case6ALib).*

### 6.2.7.2 Library Hour

The library hour was basically a reading hour in which children came to the library once a week and read their specified books (Figure.6.9) as part of their curriculum with library teacher. The library teacher explained in this way:

*In library hours, we are reading novels which is assigned to the classes in their curriculum, they have to read in the whole year, the emphasis is on their accent of English language (Case6ALib).*

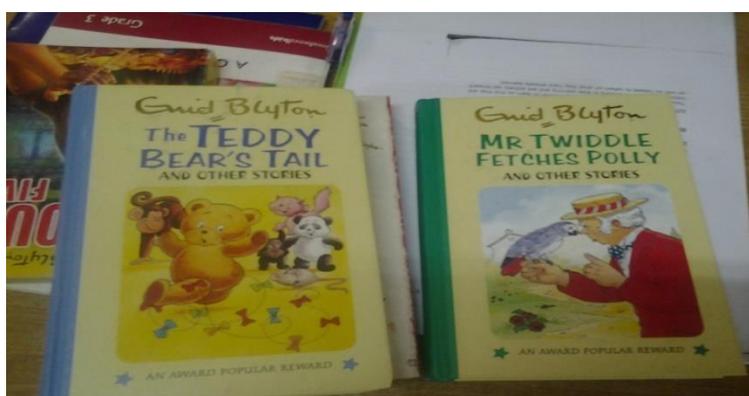


Figure 6.9: Assigned novels to grade one and two

The books in Figure (6.9) were assigned to the students of grade 1 and 2, they were supposed to read these books during their library hours throughout their academic year. The library teacher helped them in reading these books by explaining the meaning of difficult words and correcting their accent. The basic objective of library hour was to learn new English words and to develop their accents. Children also expressed this as:

*When we go to library during library hour then teacher said you are supposed to read library book (Case6C2FG).*

However, it seems that children wanted to read or consult other books during library hour, they said: “there is no free period to go to library” (Case6C2FG). This is also evidenced from teachers’ interviews that library hour was a reading class, teacher mentioned: “they used to read books, novels assigned for their reading program, the library teacher does it” (Case6C1T).

### 6.2.7.3 Book Records

The library teacher also issued them other books or story books according to their reading levels. For that children had to maintain record books (Fig. 6.10), after reading students had to get it signed by a teacher and then they could get another book for reading. The children explained:

Library teacher give us book and when we read, we go to Ms. X, she asked us about the read book and signed on it, then we return it to library to get new book (Case6C2FG).

Date	Title of Book & Pages Read	Comments Teacher/Parents
12/10/14	The Lad who went to the North Land	Same
27/11/14	St. Nicholas	Same
28/1/14	Little Red Riding Hood	Same
29/1/14	Little Red Riding Hood	Same
27/1/14	Little Red Riding Hood	Same
03/02/14	Father Bear Comes Home	Same
06/02/14	Tom Thumb	Same
21/02/14	Goldilocks and the 3 Bears	Same

Figure 6.10: Example of Children’s Book Record

The book record shows in Figure 6.10 that children were issuing and reading other library books very quickly. After reading books, school teachers asked questions from children to build their recall level. One child expressed: “Ms. X asks questions, sometimes very difficult.....sometime from the book and sometimes not from the book, if we gave right answer, then she knows that we read the book nicely” (Case6C2FG). This school was involved in the practice to build reading habits among children and then to build their recall levels.

The analysis of focus group’ transcripts also identified their love of reading library books. The Children said that they like activity books and novels, some children said that they like all library books. In response to a question about how quickly they read books, one child said: “only in one day” (Case6C1FG). Another child responded while asking what made you happy about library, she said: “reading library books” (Case6C1FG). They also expressed the wish to have new books in their school library.

#### 6.2.7.4 Library Rules & Regulations

While visiting library, the researcher observed a chart about rules and regulations, displayed on a notice board (Figure 6.11). The library rules were not very friendly, the students were not allowed to bring eatables in library, even it was instructed to dress up nicely. The rules made the library a restricted place, where students have to behave unnaturally. It also seems that library was challenged by book theft problems, it was stated that users can be asked for inspection while leaving the library. This practice can also make students conscious about library use. The library teacher takes reading class in the library, however library rules stated to maintain silence in the library. The school’ children attended their reading class in library, they did not sit

to read other books, therefore the stated rules and regulations were not appropriate for the present library use.

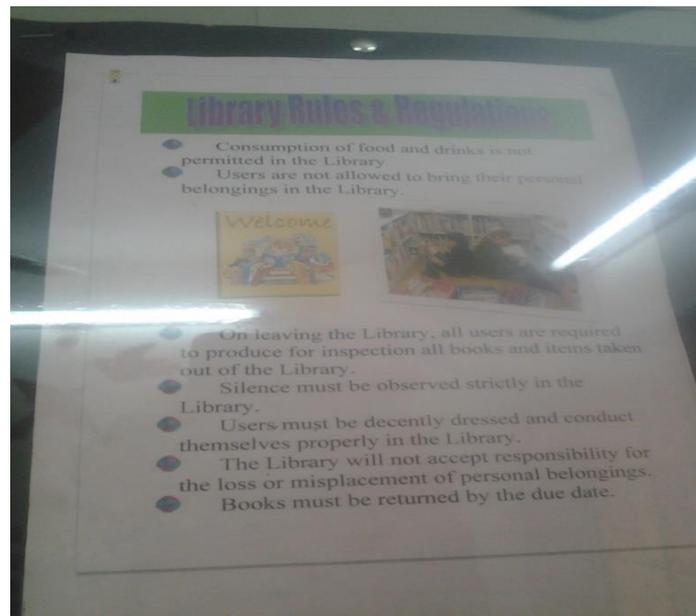


Figure 6.11: Library Rules & Regulations

### 6.3 Concluding Remarks

This chapter discussed the results about conceptions of libraries, children's library use and school libraries' operations and services. The above sections highlighted the role of the library and librarian in individual cases. Among selected six school cases, three schools had libraries. In case two, the school library, though run by a professional librarian, was not offering regular library hours to children. And even in library hours, they have restricted and limited access, only to storybooks. The school librarian said that in public schools, the government made library hour compulsory from grade six. The selected elite class private school (Case six) library was regularly running English language reading class during library hours. The library teacher in this case was offering regular lending services, however information literacy instruction was missing in library practice. The school's policy focused on developing reading habit and to build children's recall level. The children studying in schools without a library, expressed their wish to have library and storybooks in their school.

## Chapter 7 : Participant's Information Behaviour and Information Literacy

### 7.1 Introduction

The chapter will address the fourth objective of the study that aims to analyse information behaviour of study participants and information literacy (IL) skills of the children. The results will also focus the related aspects of information behaviour: children's everyday activities, familiar information sources, restricted access to sources, fantasy world and behavioural issues. The first two sections (7.2, 7.3) of this chapter will highlight the participants' information behaviour and children's behavioural issues. The IL practice of selected schools and participant children's IL skills will be discussed in the following sections. Mainly the themes were drawn from children's transcripts and activity sheets filled in by them. The results will help to analyse the participant's information behaviour and the level of children's IL skills in selected schools.

### 7.2 Information behaviour

In this category, the focus of results is on participants' overall information behaviour. The main theme (Figure 7.1) emerged when participants were asked about their familiar information sources other than text books, most popular information sources they use and their everyday activities. The results also discuss the restricted access to sources. The organization of coding (Figure 7.1) results in four subthemes and the main theme 'information behaviour' emerged from further sorting

#### 7.2.1 Lack of familiarity with information sources

This theme mainly emerged from focus group transcripts and activity sheets. When children were asked about different information sources, some of their answers showed their level of familiarity with information sources. The results of individual cases have been discussed in the following sections.

##### 7.2.1.1 Case One

During focus groups, children were asked about different information sources, they used or see at home or school. The extracted quotes below showed their level of familiarity with information sources.

Interviewer: Are you familiar with dictionary?

*No, what is dictionary? (Case1C2FG).*

*We search answers which we do not know (Case1C2FG)*

In response to questions about computer and use of internet, some children were familiar with google, they said:

*Yes...that finds games for us (Case1C1FG).*

We type Naat (religious song about Prophet Muhamad (PBUH)) and then it comes, my mother used to do it (Case1C1FG).

The selected quotes show very limited familiarity with information sources and children were using internet (Google) for entertainment and religious purposes. Only those children were aware of selected information sources such as dictionaries, newspapers, whose elders were using them. For example, one child said about dictionary: “yes my sister uses that, we find words from it” (Case1C1FG).

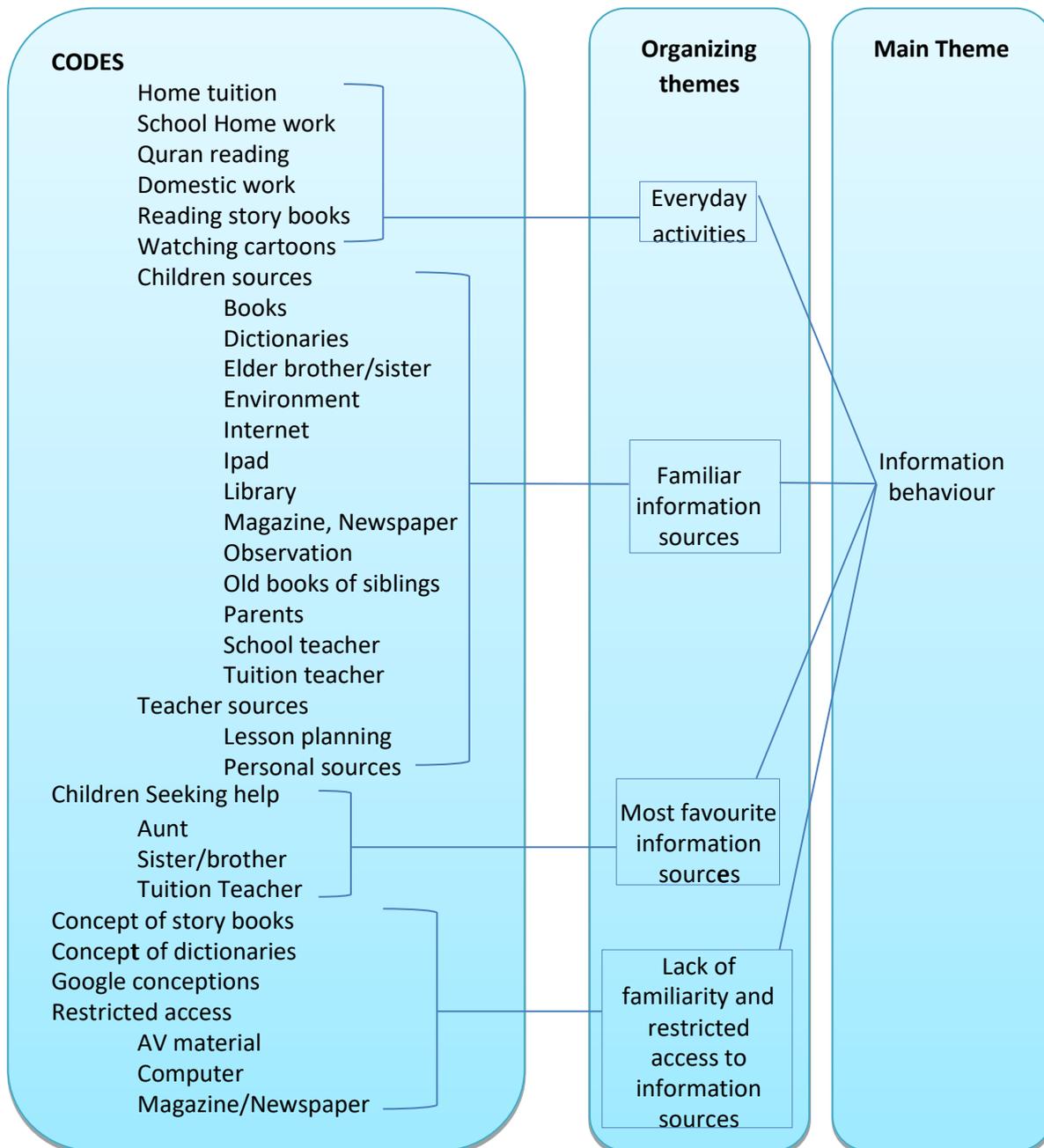


Figure 7.1: Emergence of main theme 'children information behaviour'

When children were asked to share any story they read, they were hesitating, pointing to each other and started singing poems. These children never had a chance to watch movies or cartoons in their school, one child excitedly shared his previous experience, when once he watched cartoons in school, he said:

*In my previous school, Safeguard (a soap company) people came, they showed us cartoon...(Case1C2FG).*

The children also mentioned their activities, which they used to perform on a computer. The majority of them said they used for playing games and listening “Naats”(Poetry in the praise of Prophet Muhammad (PBUH)). Only a few children said they use computer for watching cartoons, colouring and listening music. However, these children were not allowed to turn on a computer and use it themselves, as they mentioned:

*My elder brother locked all applications on his computer (Case1C1FG).*

*My uncle has computer at his home, their children used to play games...my father does not allow me, he did Umrah (Pilgrimage) and used to teach Quran to other children (Case1C1FG).*

*My mother said do not use all day, it will be out of order (Case1C2FG).*

The results evidenced children’s restricted access to print information source as well. One child mentioned: “my mom says you are younger now, you cannot read newspaper” (Case1C2FG).

The majority of children had low recall level when they asked to share any story read previously. Only three children shared the same story, they heard previously “thirsty crow” (famous traditional story, taught in textbooks).

### **7.2.1.2 Case Two**

The children in this case were not very familiar with information sources for example dictionary, encyclopaedia etc. However, only one child described newspaper as: “people read to know about what happened in a day” (Case2C1FG).

However, some participants were familiar with those information sources, which were in use by their elders, one girl said: “my elder sister got dictionary from school, I ask her to find good things in it, for example I asked her to find Kangaroo and she found” (Case2C2FG).

The children also misconceived stories with poems. When they were asked to share some story, they started singing “Jack & Jill”(poem). When I explained them about stories and told them some famous titles, they said, they did not remember. They explained that they only know poems.

The children in this case were very quiet, particularly boys. In response to a question that do they go to multimedia room in school, they all were quite. When researcher explained them “do you go to a room where there is a big screen?”, they said: “yes we watch cartoons there” (Case2C1FG).

The grade 2 children had better recall level than grade 1 children. These children shared very old stories but grade 1 children remained silent.

The results in this case also indicated limited use of computers and the internet. Only two boys of grade 2 mentioned that they knew how to turn on a computer and play games. Other children who had computers at their homes, ask their elder brother/sister or parents to turn on for them. These children watched cartoons, played games and talked with their relatives outside Pakistan, as one child mentioned:

*I talk with my aunt and uncle (Case2C1FG).*

### **7.2.1.3 Case Three**

Instead of having a library in this school, these children had limited knowledge of other information sources than text books. They like and read old stories of prince and princess. Two girls were familiar with dictionaries as their mother and aunt used them at home.

These children had a good recall level, when they were asked to share any story, a grade 2 child shared a story about snow white. The majority of the children mentioned that they play games and draw things on computers. Only one child stated that she talks with her relatives outside Pakistan. Among other study participants, two children said, they were able to turn on computer and play games on their own. Restricted access was also evidenced from results, children shared as:

*We have computer but my elder sister uses it (Case3C1FG).*

The participant children were also not allowed to have pets, one child said:

*No my mom don't allow me to have pets, she hates animals but I like (Case3C1FG).*

### **7.2.1.4 Case Four**

The children were not very different in this case from previous cases. They were not familiar with print information sources, while asking about dictionary one child said: "yes this is information about books..." (Case4C2FG). However, one girl knew and said: "yes that is a guide which has meanings" (Case4C2FG). Like in previous findings, children misconceived stories with poems, they started singing poems, when they were asked to share any previously read stories.

It also seems that there were no reference sources in their library, as the description of library already stated in previous chapter. To evidence this issue one child mentioned: "only one boy in our class has personal dictionary" (Case4C2FG). However, children knew about those sources which were being used at their home, one child replied:

*My father reads newspaper, I saw pictures and there is information about those pictures (Case4C2FG).*

The results regarding use of computers and the internet show that the majority of the children listen to songs and play games. Only one child mentioned that his brother told him how to write stories and he does it with playing games. Also one child knew “Google” as a source to play games. They were also familiar with internet as source of communication, one child said: “our neighbours have and we talk with our uncle outside Pakistan” (Case4C1FG). The religious use of computers was found in results. The element of restricted access was also indicated in case four, one girl said: “we had computer, I used to play games but my elder sister did not allow me” (Case4C2FG). Another child told that “my elder sister did not allow me to watch cartoons” (Case4C2FG).

#### 7.2.1.5 Case Five

In this case the children were very silent, specifically grade 1 children. During focus groups, the children started staring at the face of their teachers, when they did not know the answer. One element also came up with discussion in results that children were familiar with some sources which were in the use of their elders. They said:

*Yes my father reads newspaper, I can see pictures but cannot read* (Case5C2FG).

*My sister has dictionary* (Case5C2FG).

These children did not mention about the use of computers and the internet at their homes or schools. In response to a question that what is information, a boy said “maybe inner part of computer” (Case5C2FG). The same findings indicated about grade 1 children. They were also singing poems when they were asked to share stories. One child elaborated, when he was asked about use of newspaper and magazines, “my mom did not allow me to use magazine” (Case5C1FG).

#### 7.2.1.6 Case Six

The children in this case were all girls and were very ambitious to be a study participant. All girls were very confident and talkative unlike in the previous cases. This school had a library and a good collection of reference sources, however the children were not using those information sources. These children were familiar with more technological information sources rather than print information sources. They were familiar with dictionaries, computers, iPad and laptops. In response to a question about the use of dictionary, library teacher mentioned: “yes we do, but children did not use, because all the school children are coming to me, so I cannot check individual student” (Case6LibT). These children were very well aware of novels, storybooks, activity books and history books. The school was running a reading program for them and they were regularly issuing books from the library to read.

In this case, contrary to other cases, restricted access to information sources was indicated in their schools rather than homes. In response to a question that do you encourage children to use internet, computer

teacher said: “No, not all of them are able to use internet at this level. If they want to do, they can do in my supervision” (Case6CompT). However, these children were using iPads and laptops at home and the teacher thought that they were not able to use these sources. The children mentioned about this issue as:

*No we are not allowed, if we play games, we had punishment (Case6C2FG).*

## **7.2.2 Familiar information sources**

This theme emerged from children’s focus group transcripts and teacher’s interviews. The participants were asked to indicate their academic as well as personal information sources. The children could not directly ask about their personal information sources, it was thought that it will difficult for their understanding. So they were asked about their everyday activities and who help them in their studies at home. The following sections will discuss the participants’ academic and personal information sources.

### **7.2.2.1 Teachers’ Information Sources**

The participant teachers were asked about information sources they use to support their teaching other than text books. Also these teachers mentioned their personal information needs sources. As no teachers could be interviewed for case two, there was no relevant data for this theme from case two.

#### **7.2.2.1.1 Case One**

A common view among interviewees was that they will consult colleagues, friends and their own children who are studying, for their personal information need. For professional information needs, they thought that, as they had master’s degrees, their knowledge is enough for primary school children. These teachers also mentioned that teacher’s guides and new textbooks were good sources to consult. However, the grade 2 teacher mentioned that she consults books and watches television to keep herself updated.

#### **7.2.2.1.2 Case Three**

In this case the grade 1 teacher said that for teaching needs, she consults textbooks, teacher guides and the internet. She explained “from book or from internet, for any topic I type on Google” (Case3C1FG). The grade 2 teacher mentioned that for her personal information needs, she would consult close friends and family members.

#### **7.2.2.1.3 Case Four**

The case four teachers were not using any particular information sources for their professional information needs. However, the grade 2 teacher said that she asks from her colleagues, consults other books and downloads material from the internet. Then later, while talking about use of internet, the same teacher contradicted her statement and said she is not a frequent internet user.

#### 7.2.2.1.4 Case Five

Teachers in this case mentioned 'people' as their main information source for their personal information needs. While asking about this issue, the teacher said: "I will ask from appropriate person" (Case5C2T). However, as the grade 1 teacher was a student herself, she said: "I use Microsoft Word...I use Google for my own studies" (Case5C1T). This teacher said that sometimes she uses a dictionary to find meanings of difficult words. However, the grade 2 teacher was of the view that curriculum books were enough to support her teaching.

#### 7.2.2.1.5 Case Six

Mostly the participant teachers and library teacher in case six said that they use the internet and consult personal references for their information needs. While talking about their professional needs, they said their curriculum was already planned, so they only did lesson planning, which has to be approved by their head teacher. They told the researcher that they use the internet in designing classroom activity sheets.

### *7.2.2.2 Children's Information Sources*

This section will discuss the popular information sources mentioned by participant children, when they were asked "who will help you in finding information". They were also asked about their familiarity with different information sources other than school books.

#### 7.2.2.2.1 Case One

In this case the majority of grade 1 children consult their elder brother and sisters to seek academic help. The grade 2 children were of view that they can find information from books, specifically Urdu (local language) and English books. Only one child preferred to consult the environment for information, while asking how you would make a list of wild animals, he said: "we go to jungle and have animal pictures" (Case1C1FG). Another child mentioned that his mother will help him in finding information. Talking about information sources, one child said that the tuition teacher can be helpful in finding information.

#### 7.2.2.2.2 Case Two

These children's most common information sources were their elder brothers and sisters. Only one child said that old books of sisters/brothers could also provide information. Another child explained that books could give us information but not story books. However, two children mentioned that they will ask their mother if they have to find information.

#### 7.2.2.2.3 Case Three

A significant number of children stated that their elder brothers and sisters would help them in finding information. This fact was evidenced by a teacher also, she said: "we ask questions from them...sometimes

their brothers and sisters help them” (Case3C1T). In this case only two students answered differently. When they were asked how they would find information on elephants, they replied:

*I will see books on elephants (Case3C1FG).*

*I go to library (Case3C1FG).*

However, three children preferred their mothers and one child said, her aunt, as her aunt was a teacher in the same school in which she was studying.

#### 7.2.2.2.4 Case Four

The most popular information sources in this case were tuition teacher and elder brother/sisters. Nobody mentioned their mother, it could be because, as this school’ teachers mentioned, that the majority of the parents are uneducated.

#### 7.2.2.2.5 Case Five

In this case the most reliable information source was identified as the tuition teacher. Out of six participant children from grade 1 and 2, four children said that they would ask from their tuition teacher. It maybe because this school run as tuition centre in evening, therefore the majority students attend tuition in school also.

Only one child mentioned about his elder sister and another girl said, she would ask from her school teacher. It also seems that the majority of parents were uneducated, as nobody mentioned them as their information sources.

#### 7.2.2.2.6 Case Six

In contrast to other cases, these children mentioned different and variety of information sources to find information. Firstly, they said laptop and iPad can give them information. Their teachers also evidenced that mostly students use internet (Google) for research assignments. According to the computer teacher, these children were also involved in Pearson online reading program. These children were familiar with search engines and knew how to use keywords, one girl responded:

*We go to Google, I write information about living things and it comes (Case6C2FG).*

Secondly, they mentioned about books, one child said:

*Yes from knowledge books like history books (Case6C2FG).*

Thirdly, the children talked about environment as source of information, they said:

*Visiting the gardens or picnics (Case6C2FG).*

*If we visit places of Pakistan, we can also get information...we can take pictures (Case6C2FG).*

Only one child mentioned about her mother that she would help her in finding information. Another girl told that her mother asks her to use a laptop for finding information.

The Figure 7.2 represents the mentioned information sources of participant children from all six cases. One can see that the most popular information source was, sources used by their elder brother/sisters. The size of box reflects the number of coding, the large rectangle shows the large number of coding references. The other popular sources were books (text books) and elder brothers/sisters respectively.

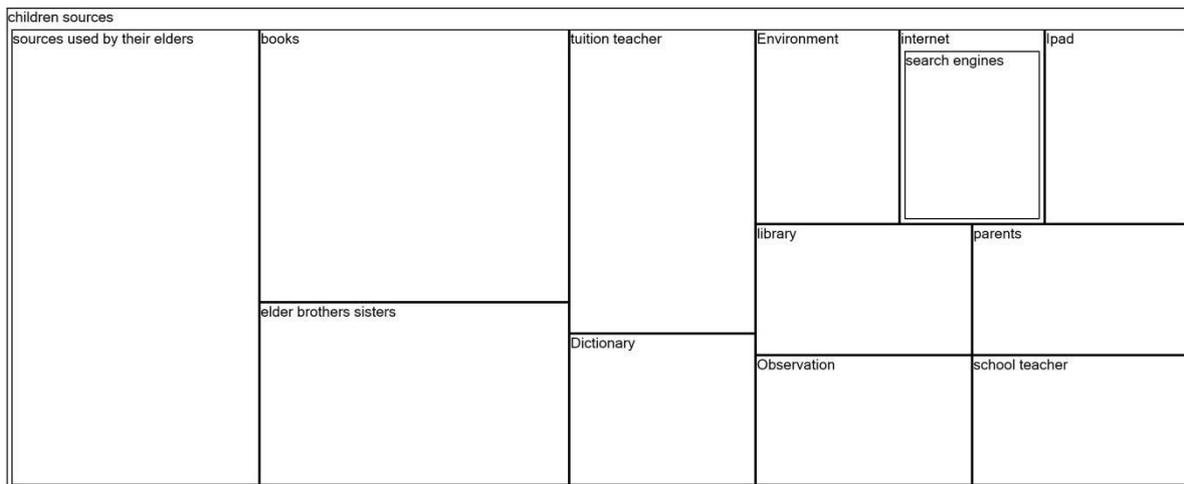


Figure 7.2: Children familiar information sources from all six cases

### 7.2.3 Children’s everyday activities

This category emerged when participant children were asked to share their everyday activities after school time. The purpose was to find their information behaviour at their homes. To know about their daily routine after school time could provide information about their information needs, information seeking ways and mostly used information sources at home.

#### 7.2.3.1 Case One

All of these children had their fixed routine at home after school time. These children had very limited fun time after school. Almost all of them go to domestic tuition centres to do their homework. Then they did Quran reading, maybe at someone’s house or at the Mosque. One child mentioned that she goes for Quran reading in morning before school time. After performing these activities, their parents again asked them to study with their elder brothers/sisters. The extracted comments below show that some of the children had to help their parents in domestic work also.

*I used to wash my shoes and socks (Case1C1FG).*

*I also do domestic work with my mom (Case6C2FG).*

Only a small number of participants indicated that they do colouring, drawings and read story books at home. The children said:

*When I got drawing book, then I do colouring (Case1C2FG).*

*I have dinosaurs' book at home...when human was not, the stories about dinosaurs (Case1C2FG).*

#### **7.2.3.2 Case Two**

The daily home routine of children in this case was not very different from case one. The majority of the children from grade 1 and 2 had to attend tuition class and Quran reading after school. The children who did not go tuition centres, their elder sisters and brothers help them in doing homework. It seems that children had significant homework load from school as their main activity after school is doing homework. Only two children mentioned that they watch cartoons on television and computer.

#### **7.2.3.3 Case Three**

In this case doing homework was the most common activity, which children do after school time. They also mentioned that they play after finishing their homework. They did not indicate other activities, as the majority of participants were copying each other's responses.

#### **7.2.3.4 Case Four**

The similar everyday activities were indicated in this case. The majority of the children told that they go to tuition, do their homework at home and then do Quran readings. No other activities of children were resulted from analysis.

#### **7.2.3.5 Case Five**

In case five, the children had also very fixed routine after school time. They mentioned that they attend tuition and after that read Quran. However, a few children said that they watch cartoons on television. It seems that these children spent whole day at school, during school time and after that at the same place for tuitions. This is because, the school is run as a tuition centre after school time.

#### **7.2.3.6 Case Six**

These children did not mention any fixed routine at home after school time. However, they mentioned that they do homework, sometimes their own or sometimes with the help of their mother. They indicated that they spend much time with their iPads and laptops.

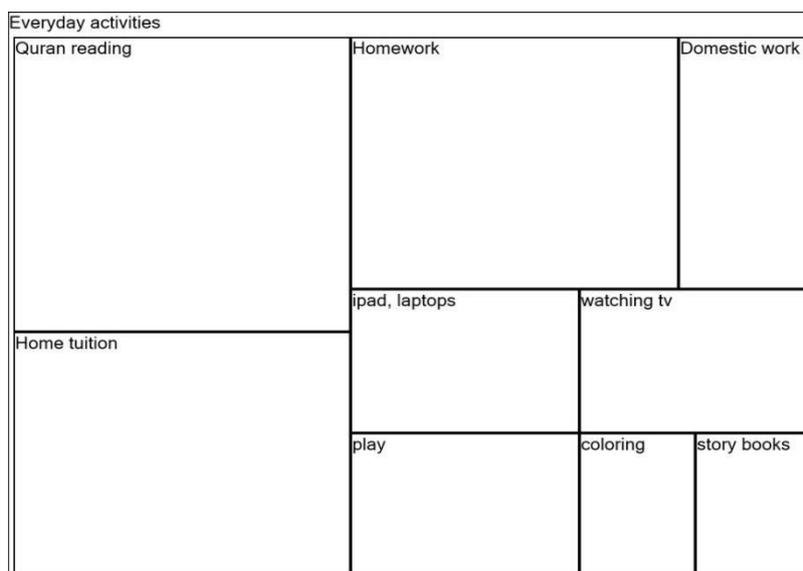


Figure 7.3: Children’s everyday activities from all six cases

The overall results about children’s everyday activities show (Figure 7.3) that majority of the children read Quran and attend home tuitions after their school time. In Figure 7.3 the box size reflects the number of coding references. Only few children were involved in other activities: playing, reading story books, colouring, watching TV and using iPad and laptops.

### 7.2.4 Family involvement

When children were asked about their information sources, they indicated their family members’ involvement in their studies and help they seek from them. The results discussed in the following sections show family involvement in studies.

#### 7.2.4.1 Case One

The results evidenced that mostly elder brothers and sisters help children in their studies and school homework. The teacher also said “some parents are not educated so we have to guide them thoroughly in school” (Case1C1T). Only one child told to researcher that her mother helps in doing homework.

#### 7.2.4.2 Case Two

The grade 1 children responded that mostly mothers help them in their studies. The extracted quotes below show the level of assistance mothers provide to participant children.

*My mom helps me in writing words (Case2C1FG).*

*When I do not know meaning then she told me (Case2C1FG).*

However, grade 2 children got support from their elder brothers and sisters, if they needed any assistance in studies. It maybe because the parents were not well educated to assist children in studies at the level of grade 2.

#### **7.2.4.3 Case Three**

In this case other than mothers and elder sisters/brothers, the aunts were also involved to help children in their studies. One teacher explained while talking about parents' involvement, she said: "50% parents help them but those parents who work (maid) cannot give time and we have to give them more time" (Case3C1T). While talking about the same issue, the librarian said:

*Their parents don't care about their learning at school, one day I asked a mother to buy notebooks for your child and a new uniform. She said I just sent my child because I am not at home till 2.00 pm. So school is a good and secure place to leave child...(Case3ALib).*

It seems that only educated parents were interested and involved in their children's studies.

#### **7.2.4.4 Case Four**

The teachers complained that most of the parents did not take interest in their children's studies as they were uneducated. The results indicated that other than their elder brother/sisters, tuition teacher played important role in teaching children at home.

#### **7.2.4.5 Case Five**

The results showed that there was no involvement of parents in children's studies, only tuition teacher was responsible for that. Only one boy said his elder sister helped him in studies. This fact was also evidenced by teachers, they said:

*It is easy if their parents cooperate, some parents didn't get back to their child's performance and we have to do everything then. Parents should take interest (Case5C2T).*

*Yes most of them do, who are educated. Children with uneducated parents need more attention (Case5C1T).*

*Yes some of those and some cannot because they are not educated and cannot afford tuitions (Case5C2T).*

#### **7.2.4.6 Case Six**

In this case children were dependent on technological information sources only, even mothers asked them to use laptops if they needed any assistance in studies. The Google was the favourite search engine among these children.

#### **7.2.5 Children's Behaviour**

The coding was organized into subthemes: independent tasks, behavioural issues, children's fantasy world and teachers' perceptions about children's abilities and knowledge. This theme mainly emerged from children, teachers' transcripts and field observation. The results from focus groups highlighted their

behaviour and teachers also talked about children’s abilities. During focus groups, it was observed that children were copying each other, also children talked about their fantasy world during focus groups.

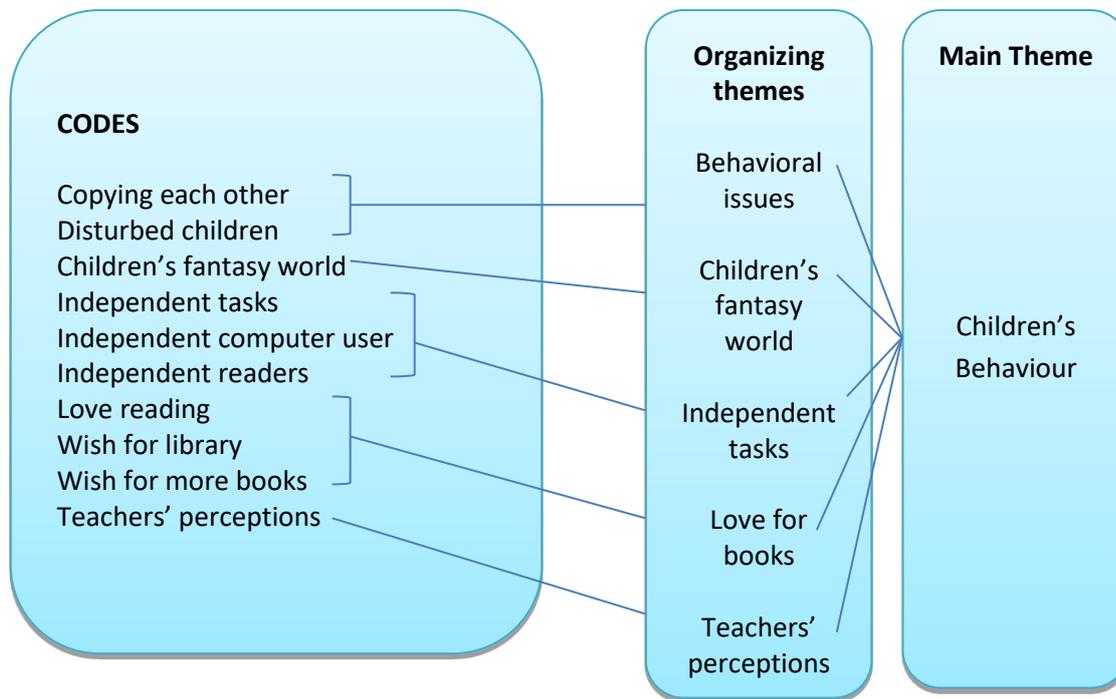


Figure 7.4: Emergence of theme ‘children behaviour’

The subtheme ‘behavioural issues’ demonstrates some behavioural issues of participant children based on field notes, observation and teachers’ interviews. The behaviour was deeply observed when the children were performing task based activities during focus groups. The participant teachers also mentioned some aspects of their behaviour, which they observed while teaching them.

The children also talked about their fantasy world during focus groups, that resulted in another category called “children’s fantasy world”. In response to some questions, children started speaking about some strange things that might be their fantasy world or misconceptions.

The fifth concept emerged, when teachers expressed their conceptions about children’s abilities and knowledge. The teachers mentioned reasons that why some children were not performing well in studies. This theme shows that how participant teachers’ thought about children’s abilities and knowledge.

### 7.2.5.1 Case One

In case one, the children copied each other’s answers, specifically while asking about how you would search information and how your teacher teaches you. It seems that children copied each other, when they did not know the exact answer or what to say.

The grade 1 teacher also explained that some children were disturbed due to domestic issues, she said: “sometimes due to parents’ fighting problems, mother left home, children expressed and become disturbed” (Case1C1T).

Also it was evidenced from results that some of these children were very independent, maybe due to their domestic circumstances. To evidence this, one girl mentioned “my mom sleeps, I ready myself for school and go to school” (Case1C2FG). It also seems that parents did not take much interest in children’ studies.

On the other hand, teachers’ thought that these children were so young to introduce or give any information finding exercise or homework. While talking about children, one teacher was of view that we could not give this type of assignments to the children living in this geographic area.

It was also found that some participant children talked about their fantasy world. One child said, when he was asked that how you would get information about forest animals, he responded:

*My father takes me to jungle every day, there are so many animals....I climb on ladder and see animals* (Case1C1FG).

On further explanation, this boy said we have a forest near our house. It seems that this child was maybe talking about his fantasy world.

#### **7.2.5.2 Case Two**

In this case, children were also copying each other’s responses, specifically when the researcher asked them about the facility of computer at their homes. Among these children, three boys said that they can turn on the computer to play games their own.

The results come up with interesting findings, when grade 2 children talked about their school library and what they do there, they said (Case2C2FG):

*Interviewer: What you do in library?*

*[silence] we play in library*

*Yes we see cartoons in library...we have screen there Interviewer: Do you have books in library?*

*Yes*

*Interviewer: Do you know how to take books from Library?*

*yes we know how to take books from library... Interviewer: How you take books from library?*

*first we say may I come in, then ask for story books and then she give... Interviewer: Then how you return library books?*

*we say thank you and return them when we finish reading....*

*yes we see cartoons in library...we have screen there.*

However, on further investigation as discussed in Chapter 6 section 6.2.2, it was found that school had no library. The results show that maybe children misconceived multimedia room as library. It can be concluded that the conversation about playing in library, taking story books from library and returning those back maybe was children's fantasy.

### **7.2.5.3 Case Three**

The results indicated that only a few children were doing their homework independently. When they were asked about this, they mentioned that work is so easy we could do on our own.

In case three, mostly girl participants were copying each other response when they were asked how they would search information on elephants. The possible reason to this attitude, maybe they found difficulty in answering questions related to information search.

It was also observed that mostly boys shared that they could use computer independently for games but girls' participants said that somebody else set computer for them. A possible reason for this is that the Pakistani culture does not allow girls to do things independently.

### **7.2.5.4 Case Four**

In this case, interestingly, the children participants were praising their school and teachers without understanding questions. For example:

*Interviewer: Does your teacher give you any information finding exercise?*

*Case4C2FG: Our teacher tells us everything.*

The results show that a few girls were able to do their homework independently. These girls explained that the school work is very easy and they do not need help.

### **7.2.5.5 Case Five**

The analysis of results of case five showed that teachers thought that school children share things and guide their class fellows in studies. These teachers were of view that some children can learn quickly and some need more time. In relation to this issue, teachers said that children learn more from their environment and observation.

The common behaviour of copying each other responses was also indicated in results. When researcher asked about how you would search if your teacher asks you to find information, grade 2 children remained silent. On probing, they started copying each other by saying “no one” (Case5C2FG).

The extracted statements below showed that only a few children mentioned that they did not need any help in doing their homework.

*I do my own, I know everything (Case5C1FG).*

*I can do my own (Case5C1FG).*

### **7.2.5.6 Case Six**

A common view among teacher participants was that grade 1 and 2 children were very young to practice information literacy. The comments below illustrate this fact:

*Interviewer: Do you use library or other information sources to support your teaching?*

*Case6C2T: No, not at this level*

*Interviewer: Do you give them any exercise based on making sequence of information?*

*No, actually, they are too young for that (Case6C1T).*

*No, we do not use Google at this age, they are very young...they do not use internet (Case6C1T).*

The grade 2 teacher also highlighted her views about children, she said:

*Most of the students are not able to catch the information because it is not practised by us, we are not in this habit or even we are not inculcating this habit into children (Case6C2T).*

However, the children participants responded in contradiction to their teachers’ views. These children were not only independent readers, they were also familiar with variety of digital information sources. In addition, they had good recall levels, shared many stories they had read. They all were using Google very confidently, even they knew how to phrase keywords. Some of them even had the concept of Gmail, as one child said:

*Interviewer: What is Gmail?*

*We write the messages for someone (Case6C2FG).*

### **7.2.6 Information literacy (IL) practice**

The focus of this section is on how participants conceived of information literacy term and is there anything in results that they mentioned about IL practice. The section will discuss participants’ immediate response to term (IL), classroom activities with IL content (finding information tasks, creative writing), IL practice

curriculum domains and information search related knowledge. However, the coding could not get references from all six cases of schools. This theme presents how participants thought about IL and how they were practicing. Mainly, this theme emerged from interviews and focus group transcripts.

#### **7.2.6.1 Immediate response to the IL term**

The teacher respondents were asked to define information literacy, did they hear about this term or what they thought about it. The overall responses indicated that teachers could not answer this question, they said that they have no idea about information literacy. However, only two teachers from case 1 and case 6 struggled and said:

*Ammm.....yes you can get information from everywhere (Case1C1T).*

*Not really...getting information from computer.....i think to be informed about thing, only then you are literate person....if you are not computer literate then you are not literate person (Case6C1T).*

#### **7.2.6.2 Finding Information Tasks**

The teachers' responses indicated some information finding tasks in their teaching method. However, all the coded references came from case six in this category. The teachers in case six were giving some information finding tasks to the children although not on regular basis. The extracted statements below evidence this fact.

*Sometimes...like once we were studying nouns and I ask them to do a project...so I asked them to go home and cut out pictures, do not buy anything just cut out from old magazines and I also did this kind of project on adjectives also (Case6C1T).*

*Case6C2T: Yes sometimes we do, like we are doing...I ask them to research what animals are there in Amazon forest in the rain forest, they researched on that Interviewer: How did they do that?*

*Case6C2T: They mostly do it on internet, most of the students have access to internet, so mostly use internet for research if we ever ask them to collect.*

#### **7.2.6.3 Creative Writing and Sharing**

The results evidenced some creative writing and information sharing tasks in teachers' teaching methodology. Mainly, this practice was indicated in Case six, Case four and Case three. The teachers shared their experiences:

*I made them to creative writing, in which they had to complete the story, what I did, I showed them movie like some part of the movie and then I stopped the DVD, after that they have to think themselves that what would happen. They have to write like the ending of the story (Case6C2T) (Figure 7.5).*

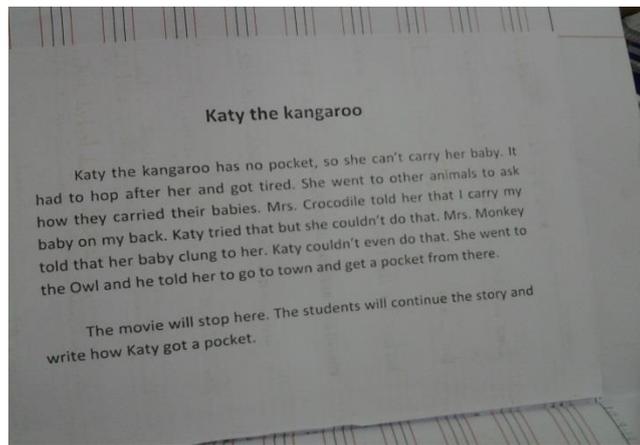


Figure 7.5: An example sheet of creative writing

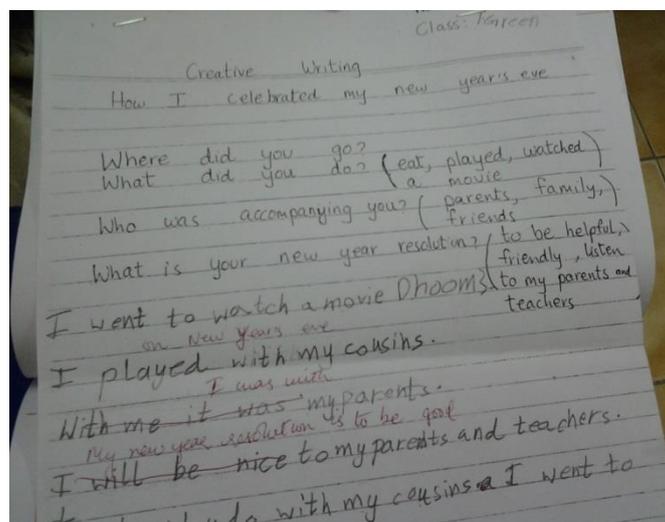


Figure 7.6: Case 6 An example of creative writing

The above Figures (7.5,7.6) showed the practice of creative writing in case six. In Figure 7.5 teacher asked children to think and write the other parts of the story. In another practice (Figure 7.6) children were asked to write about a topic (New Year resolution) by answering some questions and using guided words. It can be noticed (Figure 7.6) that this child wrote that she went to watch movie (Indian) with parents and played with her cousins. The indicated activities showed that in Pakistan how people used to celebrate New Year.

In addition, the case six teachers were also used to motivate children to share information with each other and it was class practice to display children's work.

*We usually try that they share it with others, if anything visual, we usually display at the board outside so that all of them encouraged to bring, they really loved to display their works outside (Case6C2T).*

Another extracted statement illustrates the practice of creative writing in case four, the teacher mentioned:

*I ask them to write about a personality with the help of your parents. I also ask them to look around things and then write sentences on those things (Case4C2T).*

Similarly, the creative writing practice was also indicated in case three. The grade 2 teacher told: “I ask them to bring their family members pictures for a topic “my family” and their childhood picture for a topic “child memories”. They had to paste pictures and write about those...they cannot write but try” (Case3C1T).

#### **7.2.6.4 IL Practice Curriculum Domains**

The focus of this category is to present results about curriculum domains or subjects where IL can be practiced according to participants. Mainly the data came from Case6 and Case 4 and indicated that IL can be integrated in English language course. While talking about information finding exercise practice, the children and teachers mentioned other subjects as:

*Interviewer: Does your teacher give you information finding project?*

*Case6C2FG: Yes our science teacher gives us.*

*Interviewer: Do you use dictionary, encyclopaedia etc. in your teaching?*

*Case4C2T: No, not at this level, but there is a new subject General Knowledge that contains some activities.*

#### **7.2.6.5 Information Search Related Knowledge**

This section will mainly present the results of participants’ knowledge about information search or searching information. It is evidenced from previous results (section 7.3) that mostly children were not able to understand and answer the questions related to information search. They copy each other responses. It was also found that teachers misconceived this concept with searching physical things. The coded references were generally extracted from Case one, Case three and Case Four.

*Interviewer: Does your teacher give you any information finding assignment?*

*Case3C1T: I used to obey my teacher.*

*Case2C2FG: Our teacher tells us everything.*

*Interviewer: Do you give children any information finding exercise?*

*Case1C1T: I ask them to find the meanings of words, they consult dictionaries at home or ask parent.*

*Interviewer: If you ask them to find information, are they able to do this?*

*Case1C1T: Yes, I am sure they can do this. One day our board duster lost, I ask children to find and one newly admitted child found that, so they follow my instruction.*

The overall results from all six cases show the limited IL practice in two ways: practice of finding information tasks and creative writing and sharing activities (Figure 7.7). The results show that creative writing and

sharing practice got more references than the practice of finding information tasks. The participants also mentioned three curriculum domains in which IL was practiced in these schools: English language, General Knowledge and Science (Figure 7.7).

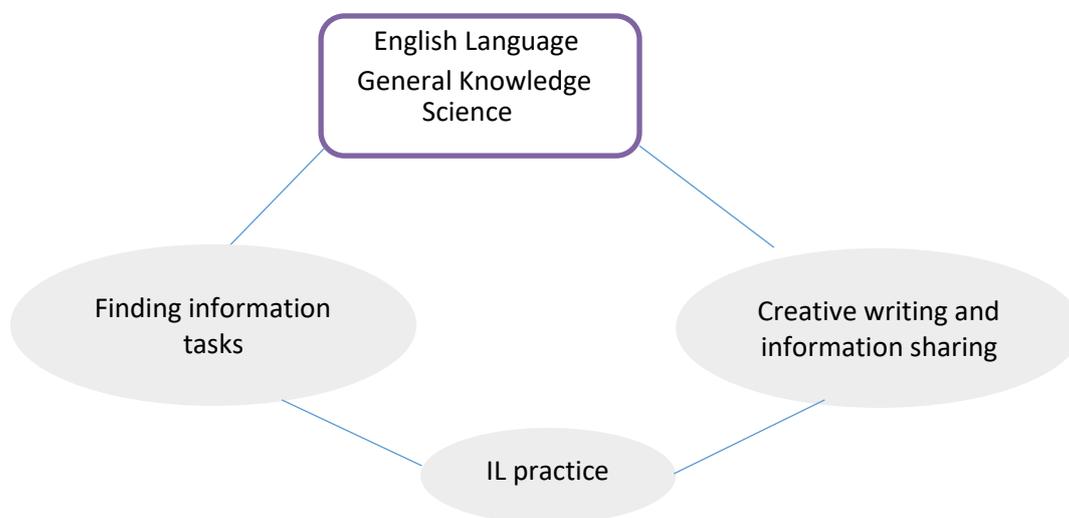


Figure 7.7: Information literacy practice in case 6, 4 & 3 and curriculum domains

### 7.2.7 Children's Information Literacy Skills

The focus of attention in this section is to present the children's information literacy skills. This addressed children's IL skill when they were asked to fill activity (task) sheets during focus groups. The details about those sheets can be found in chapter three (methodology). The coded references in this category represent children's abilities to use, organize, present and their understanding of main ideas of information. It was also found that participant children were able to recognize parts of books and to find specific information from printed information. Each activity task discussed in following sections represents children's abilities or their information literacy skills. However, findings represent only few school cases, because not all children in all selected six cases were able to perform all tasks specifically recognizing specific information and identifying parts of books activities (section 7.2.7.5).

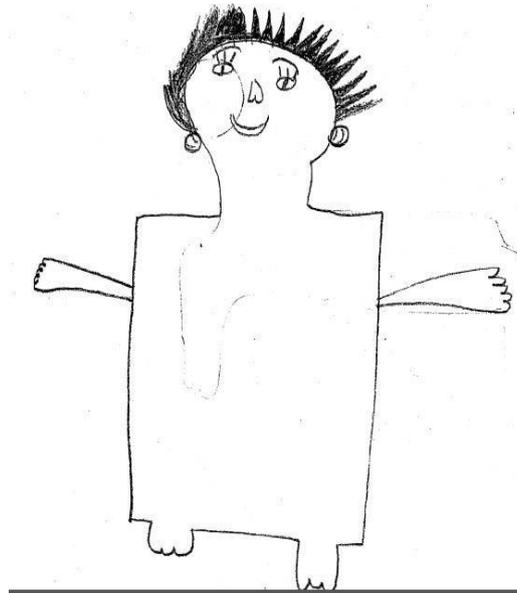
#### 7.2.7.1 Child's Ability to Use Information

This task activity demonstrates children ability to use information. In this task the children were introduced with an activity sheet giving information (text) about Lion. They were asked to draw lion, his house and food by using the given text. It was observed that mostly children showed their interest to do this task only in case six. However, in other cases only those children participated who were confident about their drawings.

##### 7.2.7.1.1 Case One

To make sure that these children understood the given information, the researcher orally translated the whole text (given in activity sheets) into the local language before asking children to perform this task. These children were also seeking help from researcher, when they found difficulty in performing these activities.

Additionally, they were also asking confirmation from researcher that they were not doing wrong. Among participants, two children were not able to use provided information about lion (Figure 7.8). The Figure 7.8 is an example of a child performed using information task. The picture was drawn by a participant girl of grade 2. In this drawing, she made a smiling girl wearing a crown and earrings. The participant possibly drew herself or a happy princess. The possible reason is that these children were interested to read stories about prince or princess, so maybe she sketched princess of her stories. However, she did not use given text of activity sheet and made a girl of her imagination.



*Figure 7.8: Information use activity performed by a girl from Case One*

It was also found that other two children who performed this task were made minimum use of given information on the activity sheet. These children picked a few words of given information and used them in their drawings. The drawing in Figure 7.9 illustrates the task of using information performed by a boy. This boy picked the words “sharp jaws”, “house”, “legs”, “tail” and used in his drawing. He used some information to draw a lion but he made generic form of a house (hut) and ignoring that it was a lion’s house.

➡ By using above information, can you draw a lion, his house and food?

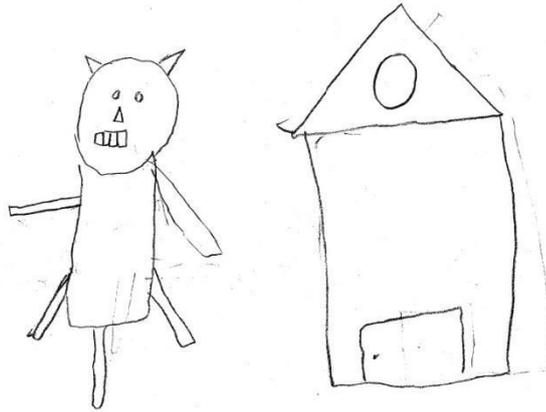


Figure 7.9: One boy's drawing of Lion, house and food from Case One

### 7.2.7.1.2 Case Two

In case two, many children returned the sheet, saying that they could not draw a lion. The children were very selective in choosing task based activities. Most of them selected the less effortful tasks. The Figure 7.10 demonstrates the child's ability of using information. The Figure (7.10) showed that according to this child, a lion lives in a cage, however given information reported that lion used to live in grasslands. This participant used his own background knowledge or observation, in which he maybe saw a lion in zoo or in cage, therefore he drew this.

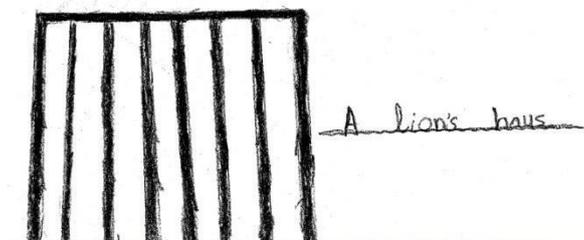


Figure 7.10: One boy's drawing of Lion's house from Case two

The results showed that only one child followed half of instructions given on sheet and also explained by the researcher. Interestingly, this child drew lion with four legs, long tail, and dark mane (Figure 7.11). He also tried to make grassland around the lion. However, he used his background knowledge and made a mouse with the lion. The possible reason is that maybe he had the famous story about lion and mouse in his mind which is part of their Urdu (local language) textbooks while drawing this picture. He also captioned the picture as "the lion and the mouse" (Figure 7.11).

## The Lion and the Mouse

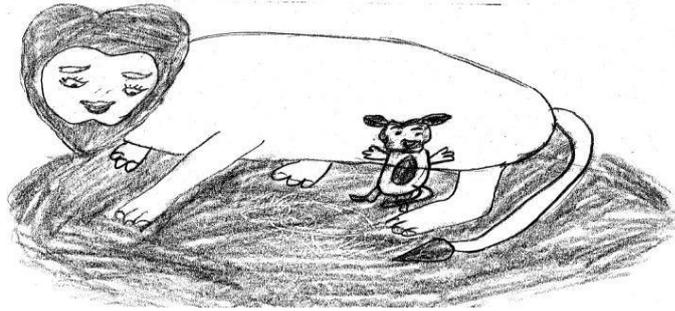


Figure 7.11: Another boy's drawing of Lion from Case Two

### 7.2.7.1.3 Case Three

From case three no child performed using information task, they returned the sheet and said that they did not know how to draw lions. They said drawing a lion is hard. The researcher asked them to draw food and lion's house, but the children returned the blank sheets.

### 7.2.7.1.4 Case Four

The first child who performed this activity returned blank sheet and the second child used his background knowledge without following instructions. This child drew generic house or a hut and completely ignored the given information on activity sheet.

### 7.2.7.1.5 Case Five

The findings from case five showed that children were able to pick some words from the given text and used in their drawings. For example, one child used the words 'lion', 'mane' and 'sharp jaws' (Figure 7.12). In case five children were copying each other. Therefore, the drawings looked almost the same. These children could not understand given text on sheet with context. The drawing below showed the level of use of information by one participant boy.



Figure 7.12: One participant boy' drawing from Case 5

### 7.2.7.1.6 Case Six

These children used information with context of the given text unlike previous findings. Interestingly, these girls wanted to perform all the tasks sheets. After performing one activity, these children rushed to do the

other activity. Three girls were able to use maximum of given information in their drawings. Rest of the three girls used both given information and their own background knowledge. The examples are illustrated in Figures 7.13 and 7.14. These girls showed understanding of the task and the written text.

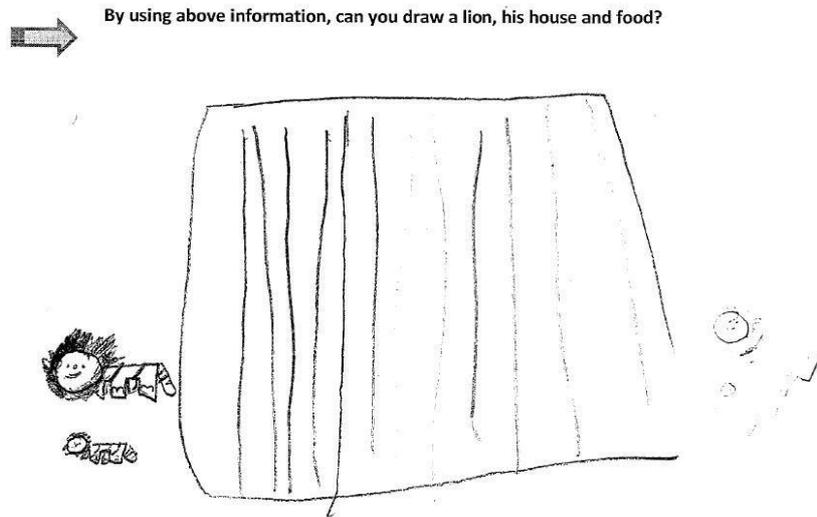


Figure 7.13: A girl's drawing of Lion, cub, food & house from Case Six

The Figure 7.13 is a good example of using maximum of given information. On the right side, the girl drew food for the lion and cub. It seems that she read the text thoroughly and then made the drawing. Although the house is cage, here she used her observation and own knowledge. The possible reason is, these children live in cities, therefore usually observe lions in zoo behind the bars.

In the second example (Figure 7.14) the child though did not draw cub, but she focused on making lion according to the given information. She made four legs, long tail, sharp jaws and mane. In this example the lion's house was also cage based on her observation.

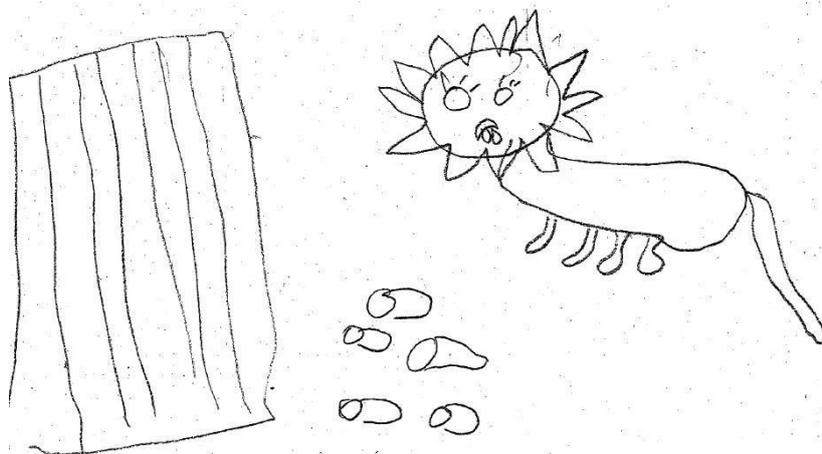


Figure 7.14: Another example from Case Six

In another drawing (Figure 7.15) the child made face of lion and the body of tiger. However, she used given information by drawing lion's 'four legs', 'long tail' and 'mane'. In this example food is inside the cage, it

seems that this child also observed lion eating food inside cage. This child used both given information and background knowledge while drawing this picture.

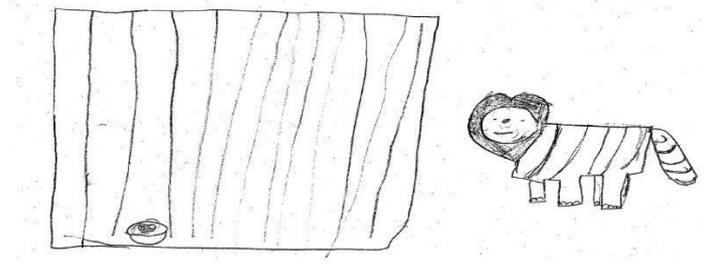


Figure 7.15: Lion's food, house drawing from Case Six

The derived results divided the participants into four levels (Figure 7.16).

- The level one' children were those who followed complete instructions and used maximum given information with selective background knowledge
- The second level students followed half instructions and used half given information with much background knowledge.
- On the third level, students followed minimum instructions and used minimum given information with too much background knowledge.
- The fourth level is the lowest level, where students did not follow instructions and drew their self-images, animals, sceneries.

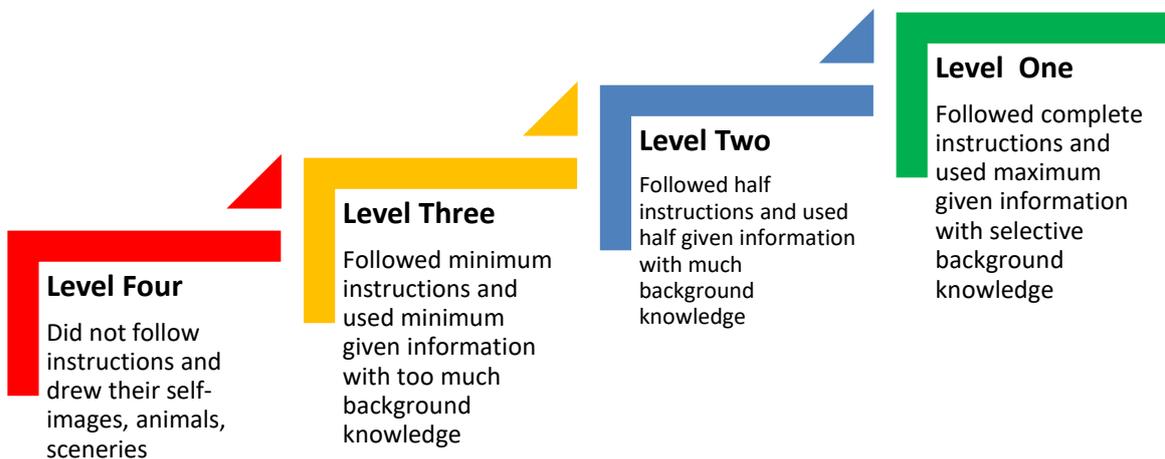


Figure 7.16: Participants' levels of using information

### 7.2.7.2 Ability to Organize & Arrange Information

This category includes task performed by children about organizing information during focus groups. The children were given an activity sheet in which they had to organize and arrange the information. In this task,

they had to express their ability to think and organize the information. It was decided to show them video about a story, however it was not possible due to the non-availability of digital resources in some schools. In addition, schools' staff were not willing to arrange this kind of activity for the researcher. They were of view that they did not have time and additionally could not spare a separate room for this task.

The researcher managed this task by reading a story among children in each focus group. Later, it was asked from children to write back that story in three parts (Figure 3.7, Chapter 3). In this task they have to write what happened first, in the middle and at the end of the story. Mostly in public schools, children were not able to write, so the researcher asked them to tell orally about the story. The researcher also gave them an option to write in local language (Urdu) or simply write some words (may be characters) in order they heard in story. They were also allowed to organize in parts any story they heard or read before. However, the task was not favourite among the children and most of them avoided doing this activity. Therefore, this category could not get references from all six cases. On the other hand, the case six participants enjoyed performing this activity.

#### 7.2.7.2.1 Case One

The case one' children refused to perform this activity when they were asked to do so. The reason they explained that they did not know how to write on sheet. However, when researcher asked them to share orally, they all were unable to share except one boy participant.

#### 7.2.7.2.2 Case Two

In this case, one student wrote the familiar sentences or words, he already knew. The written sentences (Figure 7.17) by this participant were not meaningful. He did not show understanding of this task.

A girl participant wrote a story (Figure 7.18) about snow white in local language (Urdu). This girl though wrote a story but was not able to organize and arrange parts of the story. The overall results showed that these children even did not know that how to perform this activity, instead of providing instructions by the researcher. The children were not able to organize and arrange information in this case. It was also observed that at the same grade level, children had different levels of skills. There was a big gap between the capabilities of same grade children. As results showed that some children were able to write but others refused and said they could not write.

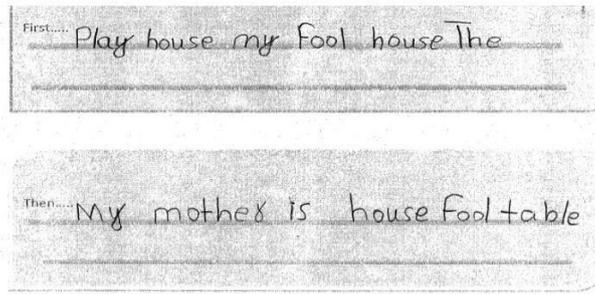


Figure 7.17: Example of organizing information, wrote own words

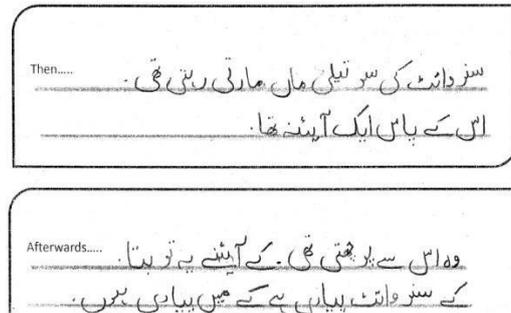


Figure 7.18: Example of organizing information, wrote story

#### 7.2.7.2.3 Case Three

It was found in results that children in case three avoided this task. Only one participant filled the sheet related to organizing information. Other students refused to do and returned back the sheets and said they want to do other task sheets. The girl participant, who filled the sheet, wrote her own familiar sentences which were not relevant to the story. The sentences she wrote were not based on story but seems that she attempted to write an essay. In her local language (Urdu) she wrote:

*Lion is good. His age is six years. He is in class two. He has a tail. He reads very good.*  
(Case3C2activitysheet).

It might be possible that she picked some words from first activity sheet about using information (drawing lion, his house and food) (Figure 3.6, Chapter 3). However, the child had no understanding of this task sheet.

#### 7.2.7.2.4 Case Four

One child from case four, misconceived story with poem and wrote on the activity sheet. However, she could only write the first line of the poem. She could not follow the researcher' instructions and used her own knowledge.

The second child could only write the beginning of a story, he already knew. He wrote in local language (Urdu) but could not write the other parts of the story (Figure 7.19). This boy could only recall the first part of

the story. The boy had understanding of performing this task but could not recall the other parts of the story. The possible reason could also be poor writing skills.

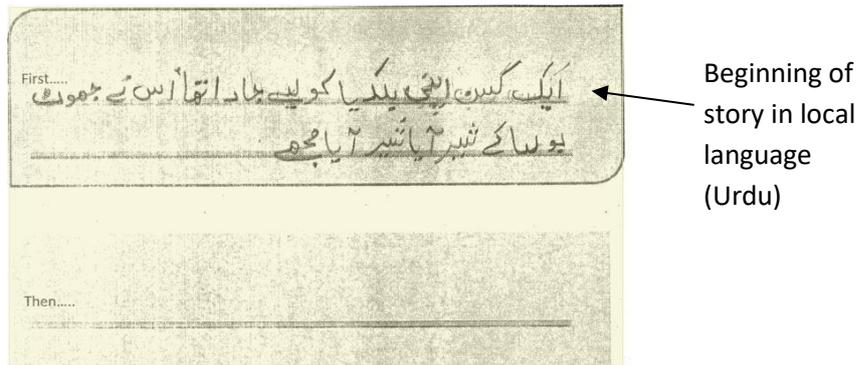


Figure 7.19: An example of organizing information, beginning of the story

#### 7.2.7.2.5 Case Five

In this case, the grade 2 child had performed the task of organizing information. Like in previous case, here the child was able to write story but was not able to organize and arrange information. He could not recall the other parts of the story, he just wrote beginning. It can be concluded that this child was not able to organize and arrange information and also could not understand the task requirements.

#### 7.2.7.2.6 Case Six

As the case six' children performed well in the previous activity (section 7.2.7.1), so it was anticipated that these children were also able to organize information. In this case, many children performed the activity of organizing and arranging information. These children were able to write and organize parts of the stories, they read before (Figures 7.20,7.21). They showed their understanding of task, recalled the read stories and made the sequence of information. However, in Figure 7.20 the child tried to cover the whole story in three given sections from beginning till the end.

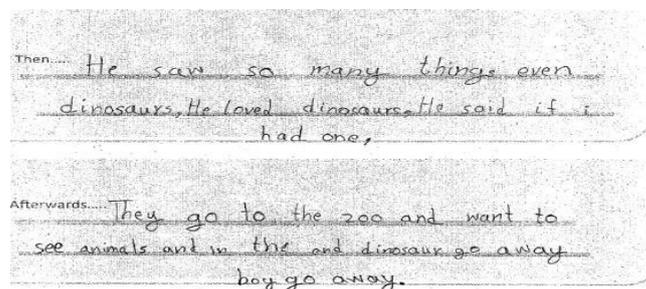


Figure 7.20: Example of organizing information from case six

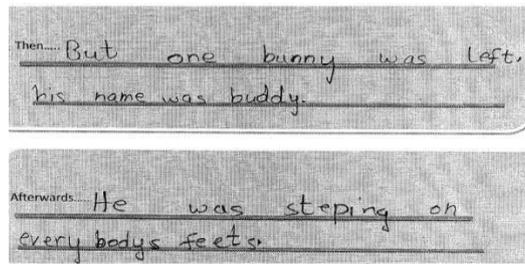


Figure 7.21: Another example of organizing information from case six

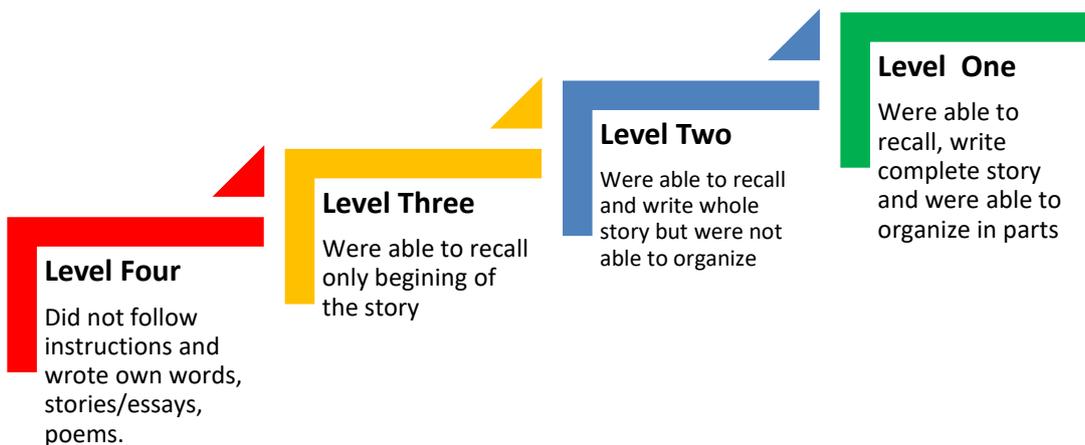


Figure 7.22: Participants' levels of organizing information

The Figure 7.22 demonstrates the participants' levels of organizing information. These levels show those children who participated in this activity, those children who did not perform this activity did not allocate any level. The overall results showed that majority of the participants did not follow the instructions given on worksheet and by researcher (level 4). They wrote their own words, stories and poems which they were not asked to do so. The level 3 participants were able to recall only the beginning of the story. The children of level 2 were able to recall the whole story but could not organize into parts. Case six students were achieved level 1 as they were able to recall, write and organize the story.

### 7.2.7.3 Ability to recognize different parts of books

This section is focused on the ability of child to recognize parts of books, for example Spine label, Title of book, Author's name and front cover illustration. The participant children were given a task (Figure 3.8, Chapter 3) to recognize parts of books and write on the given sheet. The purpose was to know which parts of a book the participant children were able to recognize. The task highlighted their familiarity with books and by recognizing these, they would be able to find books.

This task was least attempted by the participant children. The researcher was asked for help many times by the participant children, who were performing this activity. Many participants returned the sheet back and said they did not know how to do this.

#### 7.2.7.3.1 Case One, Two, Three and Four

The participants from case one, two, three and four were not able to recognize the parts of the book. These children refused to perform this activity. When researcher asked them to fill in the sheet, most of the children said they could not do that. Some other children said we did not like this task. Only one child from case four performed this task (Figure 7.23) and wrote the title of book at author's place. This child wrote at the title place "this is very good" in local language. This child had no idea about the title of the book. The results showed his understanding about the parts of books (Figure 7.23).

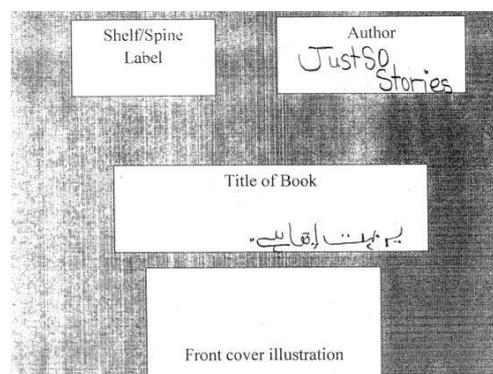


Figure 7.23: Example of identifying parts of book from Case 4

#### 7.2.7.3.2 Case Five

Among children who performed this activity, the first child knew about the title of the book. However, he was unable to determine other parts of the book. He wrote the title in the correct box. The second child was copying first child's work, she herself had no idea about the parts of the books. Another child wrote the title in the wrong box, where children were supposed to draw title page illustration (Figure 7.24). This child was not sure about the title of the book, he asked researcher to help him in identifying title.

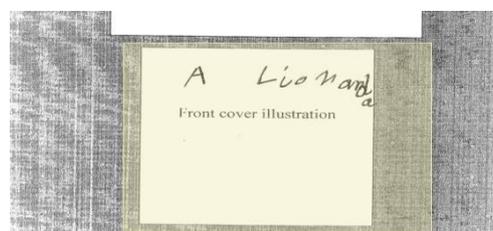


Figure 7.24: Example of identifying parts of book from Case 5

### 7.2.7.3.3 Case Six

Interestingly, the case six children were also able to determine the title, author and front cover illustration (Figure 7.25). However, none of the child filled the box asking 'spine label'. To fill spine label box, these children were seeking help from the researcher. It was also found that some girls could not differentiate between author and illustrator (Figure 7.26). In the Figure (7.26) Bonnie was the author and Katy was illustrator. It seems that some children were not able to differentiate between author and illustrator. The children were familiar with the titles of books because they write book titles in their book records (discussed in chapter 6). These children were confident in writing title and author information in the correct boxes.

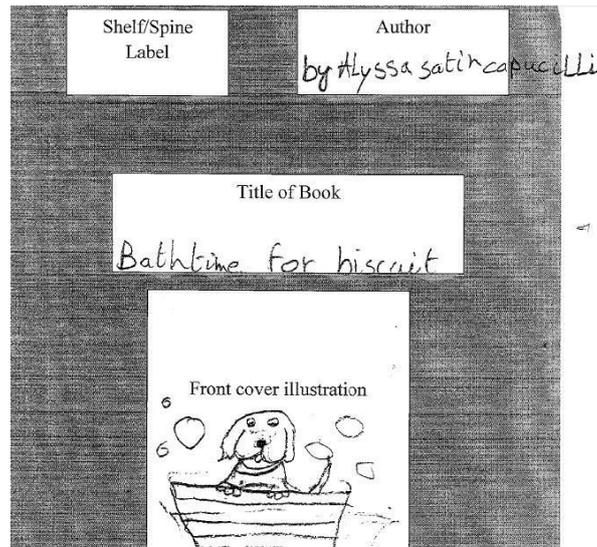


Figure 7.25: Another example of identifying book parts

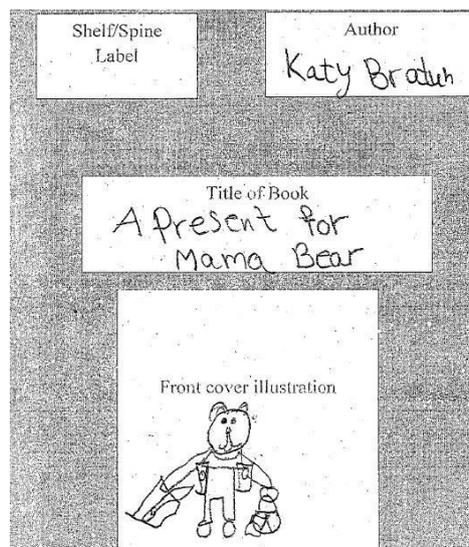


Figure 7.26: Another example of identifying book parts

The overall results from all six cases divided participants into four levels (Figure 7.27). The majority of participants achieved only level 4, these were not able to recognize the parts of book. A few children were able to identify the title of the book and achieved level 3. The case six children achieved level 1 and 2. They were able to identify the title and front cover illustration. However, some children could not differentiate between author and illustrator. None of them was able to fill spine label box on the given task sheet.

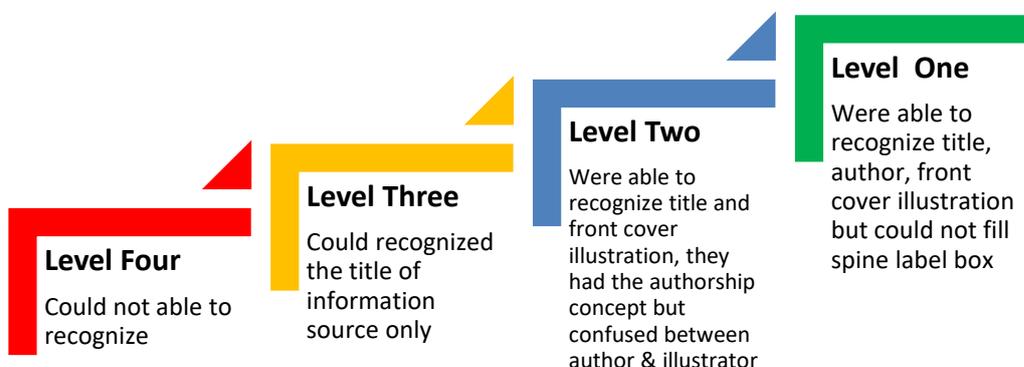


Figure 7.27: Participants' levels of recognizing parts of books

#### 7.2.7.4 Ability to find specific information

The focus of this section is to present children's ability to find specific information from print sources (book). The concept came in discussion from tasks performed by children to find specific information from books (Figures 3.9,3.10, Chapter 3). The purpose of these activities was to investigate children's ability to find specific information from books. For this purpose, they had to fill two activity sheets based on their knowledge of index, glossary and table of contents.

The children found these tasks quick (due to small boxes) and it attracted them due to the smiley faces drawing, so many children took these activity sheets. Some children just circle the given options (yes/no) without understanding it. Others returned the sheets and said they did not want to fill this in.

##### 7.2.7.4.1 Case One, Case Two, Case Three, Case Five

Overall results of case one, two and three showed that these children were not aware of the concepts of table of contents, index and glossary. These children did not perform these activities at all. They returned back these sheets and said they were not interested.

##### 7.2.7.4.2 Case Four

In case four one child filled the sheet that had yes/no options. He just marked the options (yes/no) without understanding of the task. He asked researcher that how to do this task. The researcher guided him to find if

the given book had contents, index and glossary then marked the options. The boy started looking into the text of a book for the words 'contents', 'index' and 'glossary' and marked options (Figure 7.28).

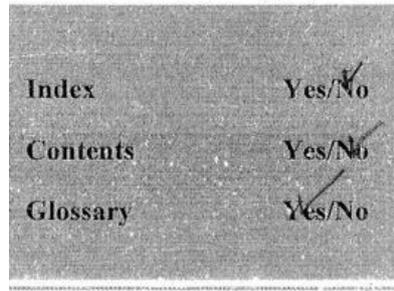


Figure 7.28: Example of finding specific information from case Four

#### 7.2.7.4.3 Case Six

These participants had no idea about the concepts of index, contents and glossary like in the other cases. These girls performed activities but without outstanding. The children asked help from the researcher in filling these sheets and on guidance they were able to mark options. The results about activity to make index (Figure 7.31) showed that children made a list of words. It seems that these children may had an idea that index contains list of words, however were not aware of its use. In addition, the results about finding index, contents and glossary in a book showed that they marked without understanding of these concepts (Figures 7.29, 7.30). In both Figures (7.29, 7.30) the books contained none of these items, however the children marked (yes/no) without any understanding.

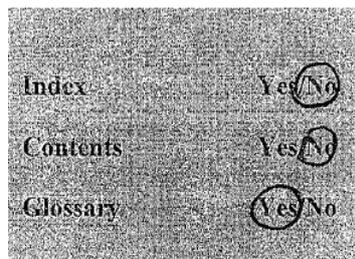


Figure 7.29: Another example of identifying specific information

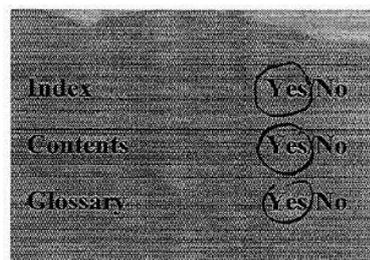


Figure 7.30: An example of identifying specific information

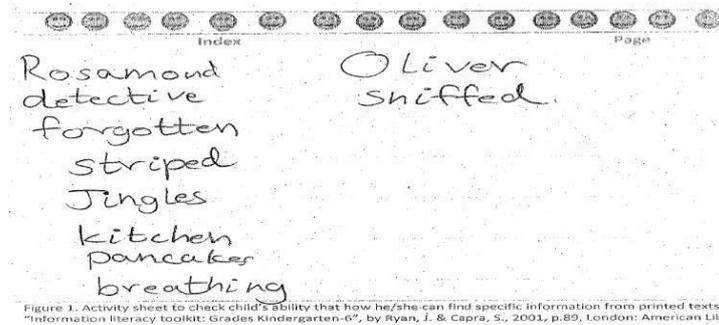


Figure 7.31: Example of identifying specific information, making index

### 7.2.7.5 Understanding to know the purpose and main ideas of information

This section's focus is to present the child's ability to know the purpose and main ideas of the given information on worksheet. The results of this category showed children's ability to understand main ideas of information. The children were asked whether they enjoyed any previously read story, whether they learned something new and what they overall thought about that story (Figure 3.11, Chapter 3).

The task was performed by many participant children as the sheet contained smiley faces. There were some children who had not read any book or seen any video previously, therefore, it was decided to ask children to fill the sheet for the story, which researcher told them in the first activity (Section 7.2.7.2). As the audio/video facility was also not available to the researcher in selected schools.

#### 7.2.7.5.1 Case One

The findings of this case showed that children were able to tell that did they enjoy storybook and did they learn something new. However, they were not able to think more about the story. They left the part blank where they had to write their thoughts about story (Figure 7.32). It was observed that they were able to perform simple tasks but could not perform when they had to think. The possible reason could also be their poor writing skills.

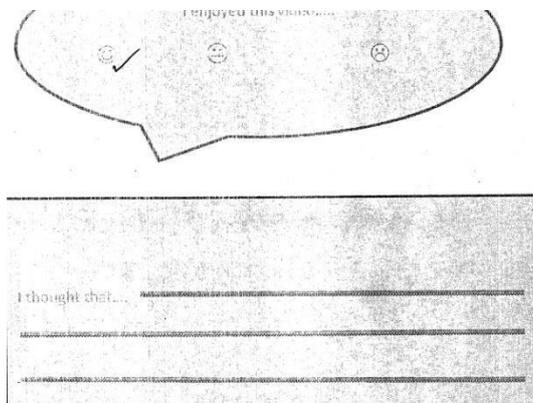


Figure 7.32: Example of understanding main ideas of information

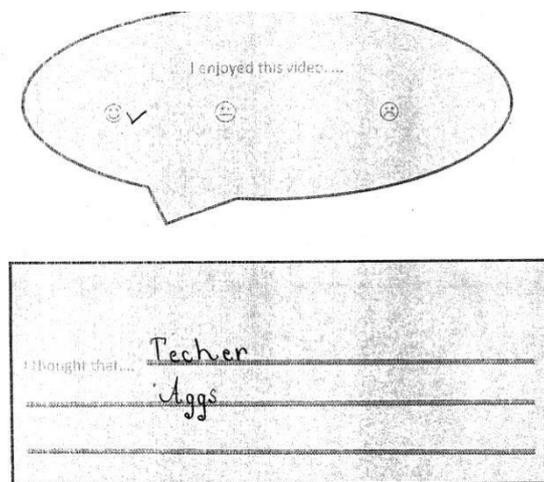


Figure 7.33: Example of understanding main ideas of information

The Figure (7.33) showed that in this example, the girl wrote the words which she already knew how to write. She did not think about the story she heard from the researcher. Her class fellows copied her words and wrote the same in their task sheets. These children were able to express their likes or dislikes, however they were not able to think much and write. It can be noticed in Figure (7.33) that this child wrote the wrong spellings of teacher and eggs. Also the story did not include these words.

#### 7.2.7.5.2 Case Two, Case Four and Case Five

These children were unable to perform this activity and returned back the sheets. They asked whether they could only mark the smiley faces. It can be assumed that they had no understanding of the task. The researcher asked children “why do you only wanted to mark faces”, they said “because we like those smiley faces”.

#### 7.2.7.5.3 Case Three

In this case some children performed the understanding of information activity. The Figures (7.34, 7.35) illustrate their understanding of main ideas and purpose of information. The example (Figure 7.34) showed that a child marked that he enjoyed the story but could not think as he wrote the story’s beginning in local language (Urdu). He was not able to follow the researcher’s instructions about this activity. This boy wrote the story he already knew or heard. In Figure 7.35 three children marked the same task sheet instead of their individual sheets.

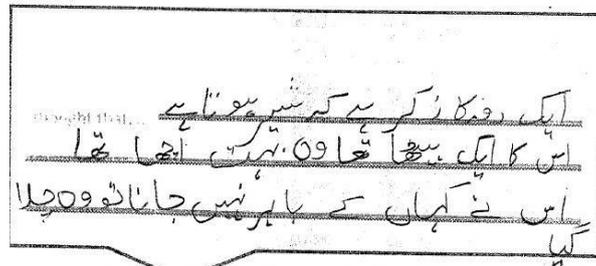
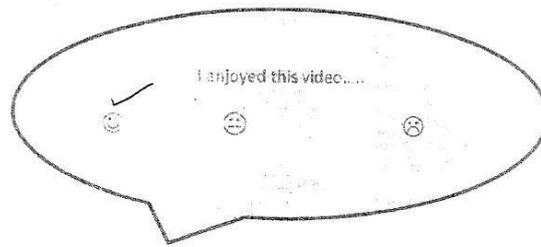


Figure 7.34: Example of understanding main ideas of information

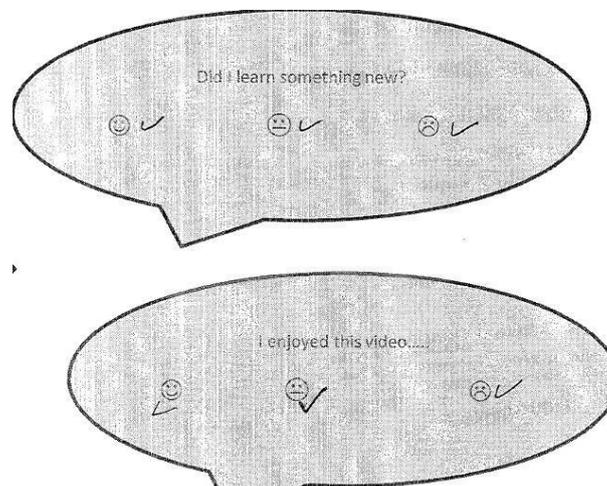


Figure 7.35: Example of understanding main ideas of information

#### 7.2.7.5.4 Case Six

These children were able to identify main ideas of the information and also expressed their thinking about the stories they already read in schools or homes. Almost all the girls performed this activity and were excited to do this. They performed this task their own and did not ask for any help. However, two girls mentioned what happened in the story at the place they were supposed to write their thoughts. Overall results (Figures 7.36, 7.37, 7.38) showed that these girls had understanding of the task and main ideas of the information.

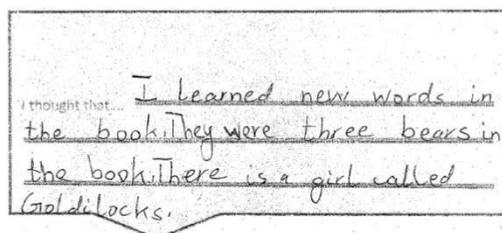


Figure 7.36: Example of understanding main ideas of information

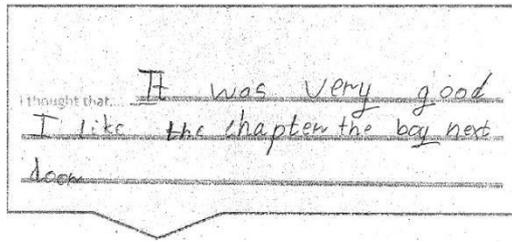


Figure 7.37: Example of understanding main ideas of information

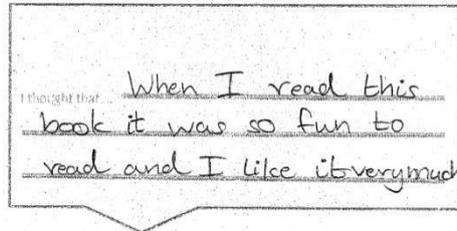


Figure 7.38: Example of understanding main ideas of information

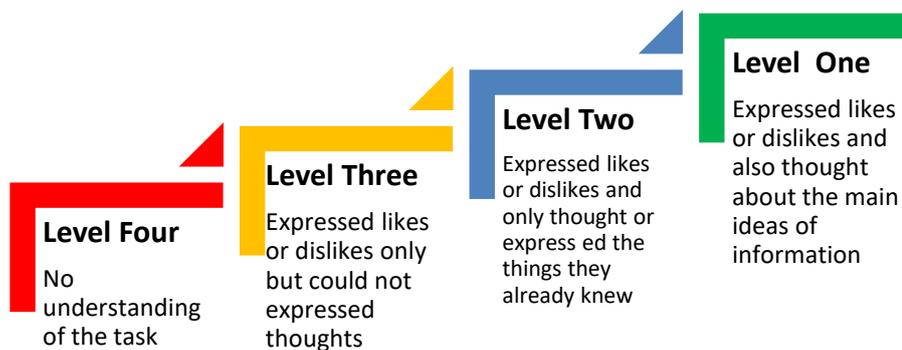


Figure 7.39: Participants' level of understanding main ideas of information

The Figure 7.39 illustrates the school children's levels of understanding main ideas of information. The children's abilities can be divided into four levels. Those children who attained level one were able to express their feelings about the used information and also showed their understanding of the main ideas of information. The children who were at level two were able to express their liking but did not express understanding about the main ideas, they wrote their familiar words (Figure 7.33). The level three children were only able to express their liking of the used information. Some children had no understanding of the performed task of understanding main ideas of information (level four, Figure 7.34).

#### 7.2.7.6 Ability to present information

The focus of this category is children's ability to present information. The children were asked to write about a picture which was printed on task sheet. Additionally, they had to write what they thought about the boy

shown in picture (Figure 3.12, Chapter 3). The results of this section indicated children’s ability to present a piece of visual information.

Almost all the participant children performed this activity and found it interesting. This task was the favourite among the children. They had to write what they saw in the picture overall. The Children were allowed to write in local language (Urdu) if they could not write in English. The researcher also asked children to tell orally if they could not write (additional field notes were collected). The picture was about a small sad and lonely boy.

### 7.2.7.6.1 Case One

Many children performed this activity in case one. One child who could not write, however explained to the researcher that picture was about a sad boy. Another quiet boy (Figure 7.40) mentioned in his local language (Urdu) that the picture boy is worried. It was observed that this child was himself very quiet.

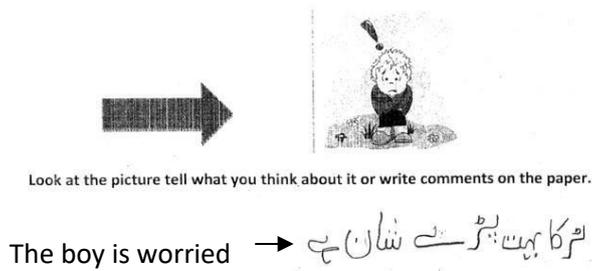


Figure 7.40: Example of presenting information

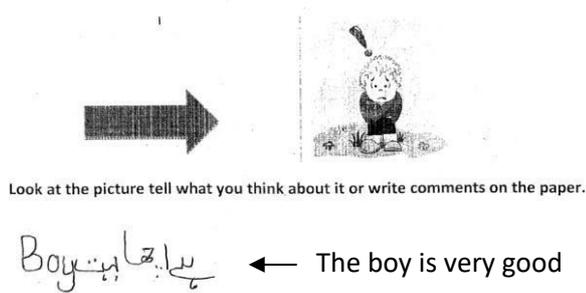


Figure 7.41: Another example of presenting information

Other children were not able to present information. They could not present information correctly, the Figure (7.41) illustrates their views about the picture. Almost all children wrote about the picture in local language (Urdu) that “boy is very good”. They were not able to present information, they just wrote their familiar words.

#### 7.2.7.6.2 Case Two

In this case, one boy wrote that picture boy is sad and the other boy wrote something in local language (Urdu). The words he wrote in local language were not understandable. It seems that this boy wanted to write that picture boy is crying. Other children did not perform the activity of presenting information.

#### 7.2.7.6.3 Case Three

In case three the children presented the information in different ways. One child described (Figure 7.42) that there is a “boy” in picture. A girl participant wrote some sentences (Figure 7.43) about the picture and her other class fellows were copying her. This girl was not able to present visual information, she wrote the sentences she memorized. She wrote in local language “This boy is very good, his is 3 years old, he reads very well” (Figure 7.43).

Some children who were not able to write but could able to tell me that picture boy is crying. The possible reason of not performing this task could be their poor writing skills.



Figure 7.42: Example of presenting information

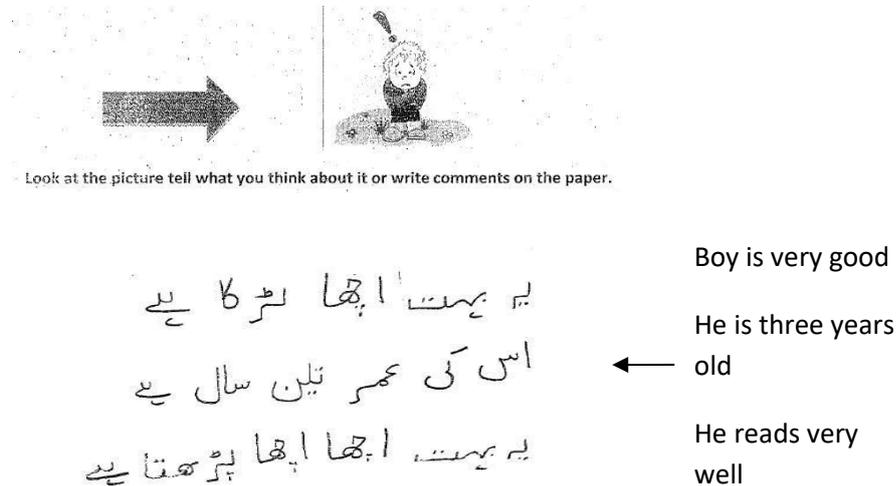


Figure 7.43: Another example of presenting information

#### 7.2.7.6.4 Case Four

These children were not able to present information correctly. Other children refused to perform this activity and returned the sheet back.

The Figures (7.44, 7.45) below show their ability to present information. One child drew a picture of girl without understanding the task (Figure 7.44). This child drew a girl's picture and had no understanding of the task. This child made a girl wearing necklace and a flower printed dress.

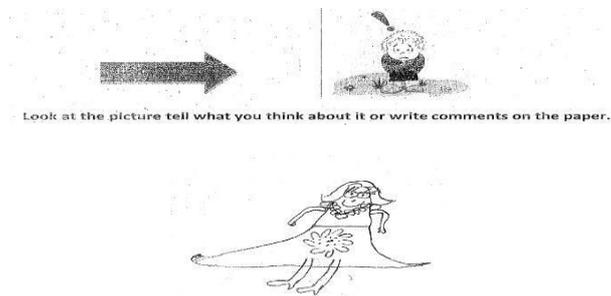


Figure 7.44: Another example of presenting information

In the Figure (7.45) child expressed his feeling about the picture in local language instead of presenting picture. The child wrote "I like this boy". Overall results showed that children had no ability of presenting visual information. These children were only able to express their own knowledge and familiar words.

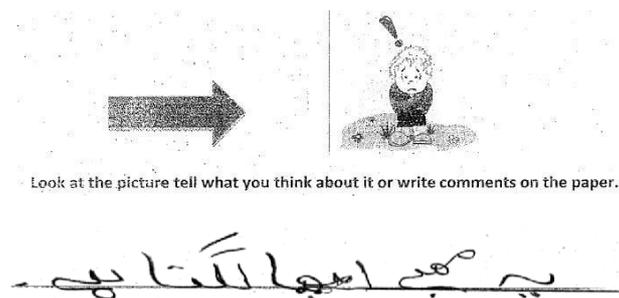


Figure 7.45: Example of presenting information

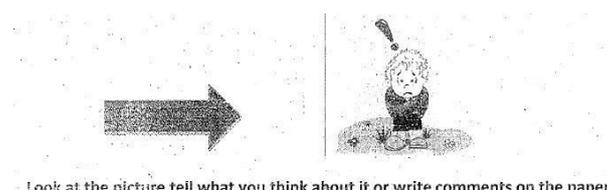
#### 7.2.7.6.5 Case Five

In case five no child was able to do this task. It can be assumed that they were not able to present information. Only one girl wrote on the activity sheet that picture boy is "good".

#### 7.2.7.6.6 Case Six

The case six children showed variant results when they were asked to present information. Some children only described the picture boy (Figure 7.46) and some other also demonstrated the picture with background (Figure 7.47).

The five children, who performed this activity, mentioned that picture boy looked sad and crying. Some others were of view that in picture, boy looked scared, confused and lonely. However, three girls thought that the picture boy is sad because he had nothing to eat (Figure 7.46). These children also noticed that picture boy was sitting.



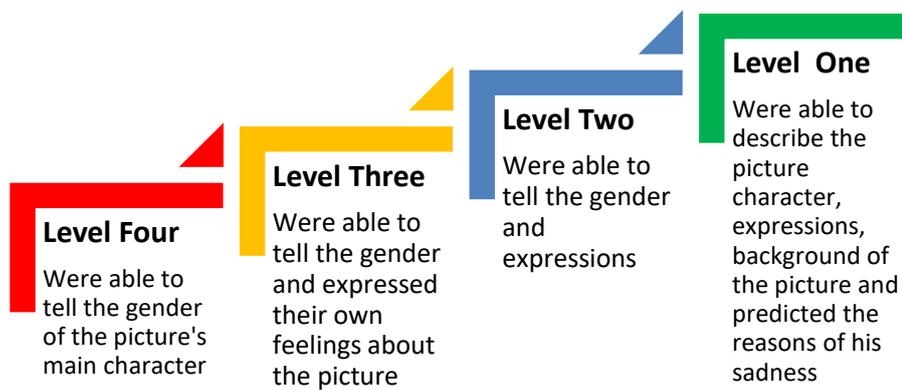
I can saw a boy he is very sad. he is sitting in a park. He din't have any thing to eat

Figure 7.46: Example of presenting information

These children also considered the background of the picture while presenting this information. In the description below, (Figure 7.47) this child assumed that picture boy was sitting in garden because there was grass in picture. However, this child also added flowers in her description. Although there were no flowers in the picture but she related flowers with gardens and grass. While presenting information, this child also presumed that the picture boy did not have anything to eat that's why he was sad. During this task the girls not only presented what they could see, they also added their thoughts and background knowledge to the description.

The boy is setting. He is very sad because he din't have any thing to eat. He is setting into the garden. In the garden there are flower -

Figure 7.47: Example of presenting information



*Figure 7.48: Participants' level of presenting information*

The overall results about presenting information activity also divided participants into four levels (Figure 7.48). The level one students who were from case six were able to correctly describe the picture boy, background and predicted why the boy looked sad. The children who achieved level 2 were able to express the gender and their own feelings about the picture. A few children were able to determine the gender and wrote the words and sentences, they already knew but not related to the given picture (level 3). Majority of the participants did not show understanding of the task. The possible reason could be their poor writing skills.

### **7.3 Concluding Remarks**

This chapter presented the results about information behaviour of participant children and teachers. Also the results indicated children behaviour and their information literacy skills. In addition, the results related to IL practice within classrooms and participants' familiar information sources were also discussed. The data collected from interviews, focus groups and analysis of activity sheets was presented for individual cases.

## Chapter 8 : Distinctive Features of Cases

### 8.1 Introduction

This chapter will discuss the individual distinctive findings of all selected six cases of schools. It is significant to see one case as a whole to get the holistic picture. The detailed findings discussed in previous chapters showed how themes emerged from each case. This chapter will highlight the main results as they appear in each case. The presentation of results will provide the opportunity to gain a holistic picture of individual cases.

### 8.2 Case One

This school was a public school located in low economic area of the city of Lahore. The school's building was very big and had separate junior and senior buildings. The school had a beautiful entrance with playgrounds on both sides. The classrooms looked very traditional, furnished with dark brown colour benches and walls were decorated with old charts. However, the school staff was very cooperative and accommodating. Mainly the school was boys' school but was mixed gender at primary level.

In this case the teachers' main teaching method was book reading in classrooms. These teachers write a topic on the black board and then start reading books. The basic teaching strategy was to translate the text from English language into Urdu (local language). Additionally, teachers explain the meaning of difficult words with examples. The grade 2 teacher mentioned that she raises some questions about the topic before she starts her lecture.

These teachers were also using teacher guides provided by government to support their teaching. They were of view that teacher guides and new text books were enough to support their teaching at primary level. However, it was found that teachers were forced into using teacher guides as they had to mention in their daily diaries that which page of guide they used in their teaching. The extracted quote below evidenced this behaviour:

*Previously we do not use those but now as we have to write diaries and we have to write used page number of guide (Case1C1T).*

It was also observed that teachers had no motivation and interest in teaching. When they were asked about using teaching material like charts, activity sheets, models, one teacher said:

*There are already some charts displayed in the class, I use them...I use if something available, no one can spend extra time on chart making (Case1C1T).*

The findings related to classroom activities showed that these experienced teachers misperceived this concept. They were of view that activities mean physical activities and games. In response to questions about classroom activities, teacher said:

*...I involve them to arrange chairs in classrooms, if sweeper is absent, I ask them for dusting (Case1C1T).*

*I used to involve them in running games within classroom (Case1C1T).*

Overall, the results showed that children in case one involved in physical work, games and sometimes writing on black board. The children also mentioned that sometimes their teachers tell stories.

One of the interesting finding was, when grade 2 teacher was asked about the use of other information sources to support her teaching, she explained:

*Just see I am masters and teaching primary children, so the knowledge I have is enough. I am not teaching masters or PhDs (Case1C2T).*

In case one students' most familiar information sources were those which their elders were using at home and their parents (mother) (Figure 8.1). However, school teachers mentioned in interviews that mostly parents are uneducated. The natural environment can also be a source of information according to a child participant. The participant children mentioned different sources of information: print sources (books, magazine/newspapers), visual sources (environment) and human sources (elder brother/sister, tuition teacher).

children sources		
parents	books	elder brothers sisters
sources used by their elders	Environment	Observation
	magazines, newspapers	tuition teacher

Figure 8.1: Case One's Children's familiar information sources

From children’s family, their elder brothers/sisters mostly were involved in their studies. Some of the children were also attending domestic tuition centers for doing school homework.

The participant children were found to be copying each other during focus groups and in performing activity based tasks; specifically, when children were asked about finding information questions. Their teachers were also evidenced and mentioned that the children’s mental capacities were not developed much. The teachers said that each topic needed revision for 3-4 days. They also indicated that their science concepts are very poor and mostly students could not perform in this subject. While talking about reasons of children’s poor performance, they said mostly children were disturbed due to their domestic issues (parent’s fight).

Some of the results indicated that children did not learn at school. As one child mentioned:

*I used to memorize at home, then I understand (Case1C1FG).*

*Interviewer: what your teacher taught you today?*

*[silence]*

It seems that parents did not take interest in children’s schooling, as one girl told: “my mom sleeps, I ready myself and go to school” (Case1C2FG). One child from case one also expressed his fantasy world in which he has a forest behind his house, where he goes daily with his father. He further explained that by using ladder, he could climb on his house’ roof and could take animal pictures.

Children IL skills	
<p>Ability to present information</p> <p>words used to describe given picture</p> <p>disturbed</p> <hr/> <p>good boy</p> <hr/> <p>verbally described picture</p>	<p>Ability to use information</p> <p>Drew self images</p> <p>used minimum given inform</p> <hr/> <p>Understanding main ideas</p> <p>could expressed likes or disno understanding of the tas</p>

Figure 8.2: Case One Activity based tasks findings

The Figure 8.2 showed the participant children’s information literacy (IL) skills. The size of box shows the number of coding references. According to the results participants could perform only three tasks (ability to

present information, ability to use information and understanding main ideas of information). These children possessed poor IL skills as a few children were able to use minimum part of given information and some children drew their self-images, in using information task. In presenting information task, mostly children were not able to write but explained verbally that the given picture is about a boy. A few children wrote some words (good boy, disturbed) to describe the given picture task. The children were able to express their liking or disliking but could not think about the main ideas of information in another activity task.

Their teachers were also not aware of the concept of information literacy. In addition, they misconceived the concept of information search. Their responses showed that they relate information searching with the concept of searching something physically or searching meanings from a dictionary.

*I ask them to find the meanings of words (Case1C1T).*

*Our day, our board duster lost, I ask children to find (Case1C1T).*

During interviews, case one teachers also mentioned some problems they faced at school (Figure 8.3). Firstly, they complained about how the curriculum is lengthy, difficult and has learning gaps.

One teacher expressed herself in this way:

*I do not understand that when a child promotes to one class, syllabus is lengthy and difficult, I do not understand this policy. In KG kids only learn to write words and in one class there is a requirement to write whole sentences. I am stuck on one exercise from four days, but I could not complete because they are minor, they took much time in writing. There are so many and lengthy exercises not suitable for this age children. There is a big gap between KG and one class, I surprise when they write sentences (Case1C1T).*

In the statement above teacher was complaining about learning gaps between pre-primary and primary stage. She expressed that due to this gap students found the next level curriculum difficult. The teacher was of view that present curriculum is difficult, lengthy and not suitable for grade one children.

Secondly, the teachers talked about the lack of availability of teaching materials and guides. While asking about the use of charts, models and activity sheets, they complained that school did not provide them the material. The teachers also mentioned that not all teachers have guides.

*Why school will do that, it's not private sector, we have to do our own. No funds available for such activities, teachers have to do their own. That's the problem I told you. We cannot afford in our salaries, we have our own expenses (Case1C1T).*

Thirdly, the teachers expressed their wish to have library and computer facilities in school. They said reading is good for children and refreshed their minds. One teacher said that in her previous job, school children used to wait for library hour.

The case one's teachers expressed that some of the children are disturbed by their family issues and could not concentrate on studies. They said that some of the children's parents fight each other and their mothers left home. These teachers also conceived that children's poor background was a big reason for their lack of learning.

*they do not have any support from homes. This is background and due to poor circumstances they cannot pick much (Case1C2T).*

The teachers also complained about different age children in the same class. They thought that it was very difficult to teach over age children as their mental capacity was not developed according to their age. The teacher said:

*Yes, we have over age children in one class, because government policy is that you have to admit all children and that create problems for us as their mental level is not developed according to their age, they are far behind from their class fellows (Case1C2T).*

While giving explanation to a question that why you were not giving information finding exercises, the teacher criticized the geographic area. The teacher was of view that she could not give this kind of exercise as children belong to a low economic area of the city and their parents are uneducated.

She explained:

*No, I never did that, because this environment and locality is not suitable for this. These children's parents are not educated, it all depends on your environment. If I do this in some other geographic area then might I get good response but not here (Case1C2T).*

Problems				
Teachers				
Curriculum			Different age childr	Geographic area
Difficult	Lengthy	Learning gaps		
			Parental issues	Personal
Missing facilities			Poor background	Teaching material
Library		computer		
Library hour			Teacher Guide	Uneducated parent

Figure 8.3: Case one's problems identified by teachers

### 8.3 Case Two

The case two was an example of a public school, which was old and very famous for its examination results. To get admission into this school, children had to pass an entry test. Mainly the school was a boys' school but was mixed gender at primary level. It was anticipated that a different nature of data would be collected from this school. In the following paragraphs, main findings from focus groups and activity based tasks will be discussed. This school did not allow the researcher to conduct teachers' interviews.

The physical building of the school was very big. The school seems to have good infrastructure as primary school entrance was very clean, attractive and colourful. The walls were decorated with colourful drawings, charts and notice boards. However, the school had no library but had multimedia room.

The results of children's focus groups indicated that their teachers teach them from text books. Mostly, their teachers used the black board in their teaching.

The findings related to information sources indicated that children thought they could get information from their elder brother/sisters and their mothers. Only one child said books would give him information. According to another child old books of his siblings were good sources of information. Other than their textbooks, these children were aware of information sources used by their elders. When these children asked to share any story read previously, the majority of students started singing poems. Only a few children from grade 2 shared some stories.

The computer facility was not available to all participant children in their homes. Those who had, their elders did not allow them to use computer independently, only a few children could use their own. The use of internet was limited to playing games and talking with relatives outside Pakistan.

These children had a fixed routine after school time at their homes. The majority of the children go to Quran reading and domestic tuition centres after school. The results indicated very limited fun time as these children used to be busy in doing their school home work.

The most interesting finding was that when grade 2 children shared that they go to library in their school. The researcher asked from head teacher to visit the school library. She clarified that there was no library in school, in fact that is under construction.

*Interviewer: When you go to library? when we have time" (Case2C2FG).*

*Interviewer: who takes you there?  
teacher (Case2C2FG).*

*Interviewer: What you do there? we play there" (Case2C2FG).*

The children also mentioned that they take storybooks from library and their teacher gives books to them. In response to my question that how you take books from library, one child replied "*first we say may I come in, ask for storybooks and then she give*" (Case2C2FG).

The head teacher explained that may be children were talking about multimedia room because there was no school library. It seems that children had their own conceptions about library. The researcher visited the multimedia room but could not find any storybooks which children mentioned that they issue from library. These children also expressed their love for reading books during focus groups.

Children IL skills			
Ability to present information		Ability to use information	
words used to describe given picture	Drew self images	used half given info	used minimum given
crying			
sad			
	Ability to organize & arrange information		
verbally described picture	wrote only familiar words	wrote story but unable to organize	

Figure 8.4: Case Two Activity based tasks findings

The findings (Figure 8.4) regarding children’s information literacy skills showed that these children performed mainly three activity tasks (present, use and organize & arrange information). Overall, results indicated poor information literacy skills of participant children. However, a few children were able to tell that what was happening in using information task sheet. Some children had the ability to write a story but were unable to organize and arrange (Figure8.4).

The results from using information activity showed that a few children were able to use some words (minimum) of the given information in their drawings and some children only drew self or other animals images. Only one child used half of the given information with his background knowledge while doing using information task (Figure 8.5).

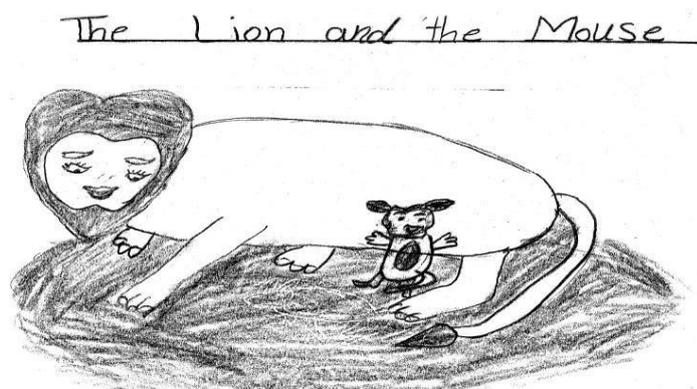


Figure 8.5: Using information example of Case Two

## 8.4 Case Three

This selected case was also a public sector school, however located in upper middle or middle class economic area of the city. This was girls' high school and had a library and professional assistant librarian. The physical condition of the building was very good specifically the principal's office was fully furnished and decorated. Mainly the school was selected due to its different economic geographic area location and availability of library facility.

The teachers' main teaching methodology was focused to reading curriculum books in classrooms. However, classroom activities involved asking questions, creative writing, group discussion and use of activity sheets. The grade one teacher said that she asked children to act as story characters. This teacher was not very experienced but had professional degree in teaching. The other teacher also shared pictures and real time examples with children for their understanding. In response to questions about classroom activities, this teacher also mentioned physical games.

These teachers mentioned about their regular training and courses. This school arranged training programs for teachers regularly. One teacher told the researcher that she consults colleagues and uses the teacher guide to support her teaching.

It was found that the grade 1 teacher who was less experienced but had highest qualification than grade 2 teacher was more active and motivated. The Figure 8.6 showed that the grade 1 teacher was conducting more classroom activities, however the grade 2 teacher was only teaching through real time examples. The grade 2 teacher had 27 years of teaching experience. The grade 1 teacher explained that she involved students in different classroom activities (creative writing, group discussion, thinking and writing stories and outdoor physical games) (Figure 8.6). This teacher also mentioned the use of A/V material to show children cartoons and movies.

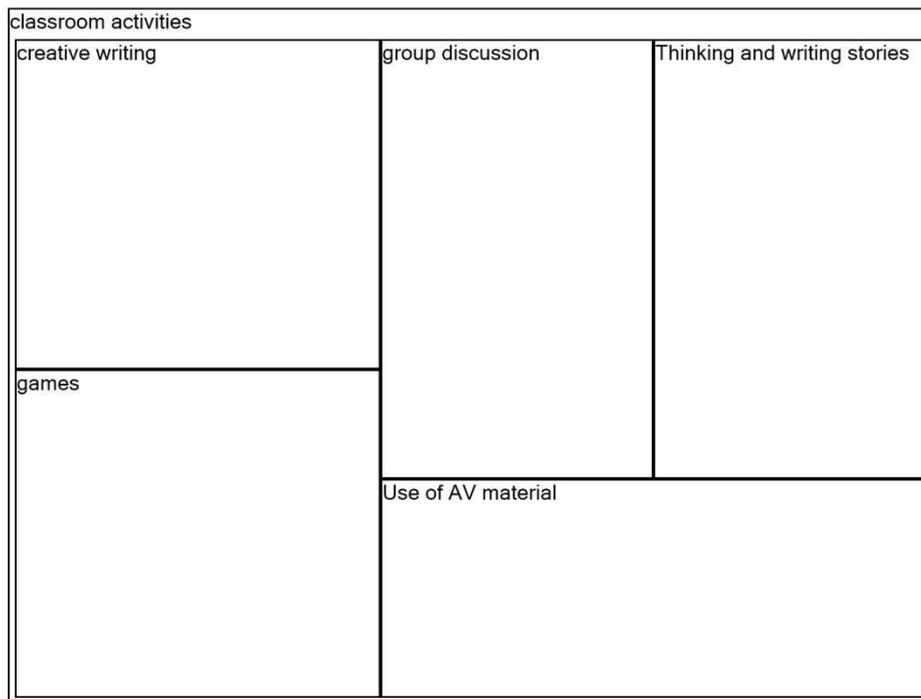


Figure 8.6: Case three Class 1 Teacher Classroom Activities

In case three, children of grade 1 said that they could find information from books and only one child thought about the library as an information source. These children were also familiar with information sources used by their elders like dictionaries. However, grade 2 children were not able to answer questions regarding information sources and information search. It seems that grade 1 children were better aware than grade 2 children. The possible reason was grade one’s teacher having a different teaching style than grade two teacher. The grade one teacher also mentioned that she uses internet and teacher guides for preparing her lectures. She explained:

*From books or from internet, for any topic I used to type on Google (Case3C1T).*

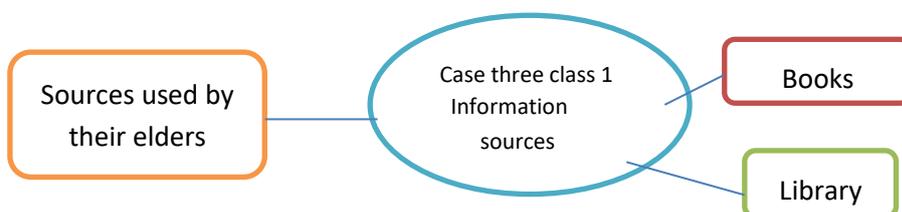


Figure 8.6: Case three Class 1 children familiar information sources

The analyses of results showed that majority of the children’s elder sisters/brothers were involved in their studies. However, a few children mentioned that their mothers also help them in doing homework.

These children’s everyday activities involved doing school homework, playing and using computer for entertainment purpose like games and communication with relatives. However, not all children had a computer at their homes. One girl mentioned that she had a computer at home but only her elder sister was

allowed to use the computer. The children were also copying each other responses when they were asked about how they would find information.

*Interviewer: Does your teacher give you information finding exercise?*

*Case3C1FG: I used to obey my teacher.*

The school had a library which was administered by an assistant librarian. The librarian had professional bachelor degree in library and information science. The librarian was also teaching different classes with the role of librarian. She told the researcher that she was teaching more than administering the library. The librarian mentioned that she was responsible for purchasing books and accessioning of library material. While talking about library, she shared that she was also preparing card catalogue for the library book.

The library was also running library hour for school children as mentioned by librarian. However, grade two children said that only small classes visit library. From grade one children's responses, it was found that they only sometime visit the library. The librarian also mentioned that lower grade classes had their library hour once in a month. However, teachers had said that children used to go for library hour once a week.

The school librarian mentioned that during library hour, children read storybooks with their class teachers. In contradiction, teachers said that the librarian read storybooks for children. On the same issue, the children talked differently from their teachers and librarian. They said:

*Case3C2FG: we only went to visit library.*

*Case3C1FG: if teacher says then we take books otherwise we used to sit quiet.*

While talking about library collection, librarian explained that they had storybooks, activity books and a few English books. She further mentioned, mostly class one and two children wanted old story books of prince and princess. And the most circulated library material was novels, specifically romantic novels.

The most interesting finding was about library orientation, when the librarian said that:

*Yes I don't allow them to bring pen and pencils, we don't allow them to tear books. And the teacher who comes with children look after them completely (Case3ALib).*

Overall results showed that school library and librarian were not playing any role in promoting reading and in terms of information literacy instruction during library hours. It was also found that the library had a limited collection of storybooks as teacher said: "children knew many story books as they read many times" (Case3C1T).

Children IL skills													
<table border="1"> <thead> <tr> <th colspan="2">Ability to present information</th> </tr> </thead> <tbody> <tr> <td colspan="2">words used to describe given picture</td> </tr> <tr> <td>boy</td> <td>crying</td> </tr> <tr> <td colspan="2">good boy</td> </tr> </tbody> </table>	Ability to present information		words used to describe given picture		boy	crying	good boy		<table border="1"> <thead> <tr> <th>Ability to organize &amp; arrange informatio</th> </tr> </thead> <tbody> <tr> <td>wrote only familiar words</td> </tr> <tr> <th>Understanding main ideas</th> </tr> <tr> <td>no understanding of the task</td> </tr> </tbody> </table>	Ability to organize & arrange informatio	wrote only familiar words	Understanding main ideas	no understanding of the task
Ability to present information													
words used to describe given picture													
boy	crying												
good boy													
Ability to organize & arrange informatio													
wrote only familiar words													
Understanding main ideas													
no understanding of the task													

Figure 8.7: Case three children's task based activities findings

The findings of task based activities (Figure 8.8) indicated that these children had very poor information literacy skills. The majority of grade 1 children were able to describe the given picture verbally but could not write during presenting information task. They said that the picture boy is crying and the boy in picture is very good. A few children only recognized gender and wrote that in picture, there is a boy. One participant mentioned that in picture the boy was good. She maybe wrote the words she familiar with, because she could not write and present about the given picture (Figure 8.9). The case three children were also not able to recognize and arrange information, they wrote their familiar words in information organizing activity.

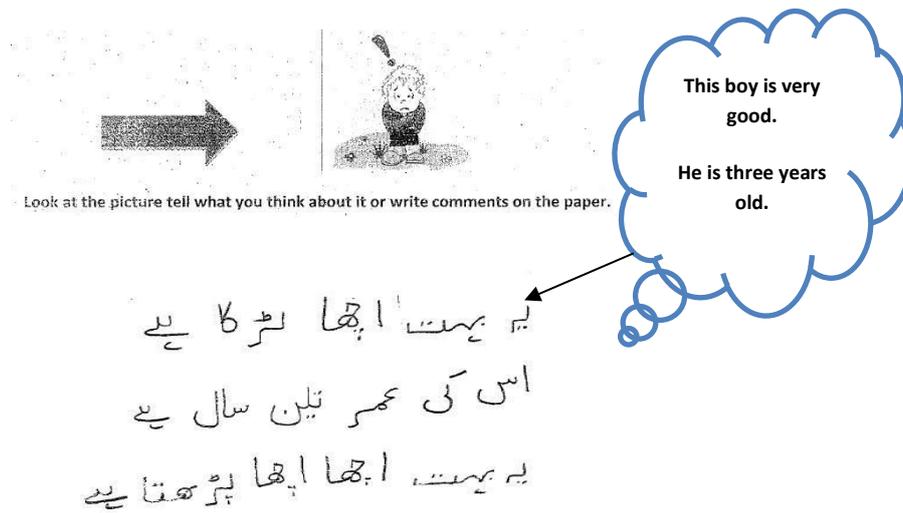


Figure 8.8: Case three example of presenting information activity

In other activities, children were not able to understand how to perform those tasks. Three participant children marked faces on the same sheet without understanding the task requirements (Figure 8.10). They were not able to recall the story told by the researcher. Only one child mentioned that he liked the story but he was unable to think about the story’s main parts. Instead of writing his thoughts, he wrote the story in the given box.

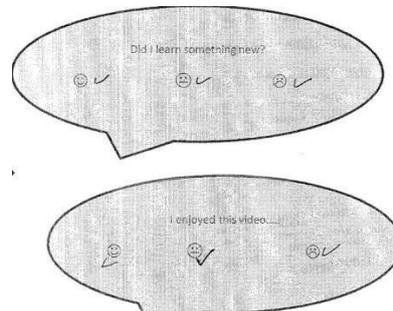


Figure 8.9: Case three example of understanding main ideas of information activity

During interviews, teachers and librarian mentioned some problems which they had to face. The teachers mentioned that school children had poor background. They also said that their parents did not take interest in their studies, as assistant librarian was also teacher, she said:

*Their parents don't care about their learning at school. One day I asked a mother to buy notebooks for your child or bought a new uniform. But she replied I just sent my child because I am not at home till 2.30 pm so it's better that my child spent that time at school. I know these children are very good, they used to copy teachers. But when they left school for home, they found a totally different environment. Their mothers asked them to do domestic work. After home time some of them used to help their mothers as they are maids in others houses. Government should build their life standards (Case3ALib).*

It is interesting to note here that though the school was located in upper middle or middle class economic area of the city, but still children belong to poor families. It seems that only maids and servants' children study in public schools.

It was also observed that teacher guides were not available to all school teachers, as the grade one teacher was using them, but the grade two teacher said that she did not have any teacher guide.

The assistant librarian also indicated the library problems. She mentioned that she had to face book theft problems, therefore class teachers came with children. She said:

*Book theft is a big problem here. Mostly these children are from poor background (their mothers are maids) so they have this habit (Case3ALib).*

Additionally, she said that she had to be very careful, otherwise librarian would be liable for any book theft. It seems that due to this policy, librarian was strict in the use of library and instructed students to be careful in the use of books. She explained:

*Case3ALib: But we have to take care of books, otherwise librarian will be responsible for their damage and lost.*

However, she thought that children have to use library regularly and should not care about book damage. The librarian also expressed the idea that students liked to come into the library and wanted library hour on a regular basis. While talking about library users, she said teachers did not visit the library regularly.

## **8.5 Case Four**

This school was a registered trust private school and also got government funding last year. The school building was small with no playgrounds, however constructed on ground, first and second floors. There was a very small storage room in which books were roughly placed on shelves and floor, headmaster introduced me to this room as the library.

The school teachers were secondary school passed and were less experienced. The focus of their teaching methodology was to cover curriculum books through lecture method. The teachers were also using the black board as their main teaching material. The grade one teacher who was a student herself mentioned that she planned her lessons a day before. It was found that this teacher had forced learning attitude with children. It might be because this teacher was student herself, had one year of teaching experience and had no teacher training. This teacher also misconceived about classroom activities and related with them to physical activities.

*Children have their own interests, but I only tell them you also have to do this (Case4C1T).*

The grade 2 teacher, though she also had a secondary school qualification, did have two years teaching experience. The results about this teacher showed that she was involved in doing some classroom activities.

This teacher introduced the topic and translated into the local language (Urdu). She arranged competitions and prizes to motivate children.

*I plan according to the subject, I also think what I have to tell them other than books. I also read sometimes other books and download material for them (Case4C1T).*

However, this teacher spoke in contradiction later about using internet. In response to a question about which websites she used, she responded “I don’t remember now, I did with grade 3 children”, “I am not very frequent user” (Case4C2T).

This school had a library without a librarian but students were not aware of a variety of information sources. The children’s most familiar information source other than their text books was newspapers. The majority of them said that their elders read newspapers. The participants did not understand the question about information finding exercise and started praising their teachers. However, while talking about that which source would give you information, the majority of them said their elder brothers/sisters. Only two girl participants thought about their tuition teachers as information source.

*Interviewer: Did you see dictionary?*

*Case4C2FG: yes there is information about books....*

The library description (see chapter 6 for detail) and library services were very interesting in case four. As children said that they go to library to store their old books, registers and holiday home works. It seems that library room was used as store room. However, while talking about library collection, interviewees mentioned that they had story books and school books there. This library room was also used as sick room and punishment room. One child mentioned as:

*if somebody had headache then teacher asks to go to library and if somebody didn’t learn the lesson then she asks to go there and learn it (Case4C2FG).*

The findings related to everyday activities showed that after school time, children used to be busy with their homework and Quran readings. Some children also attended domestic tuition centres for doing homework. However, some of the parents were not educated and could not afford tuitions. The teachers also revealed that most of the parents were not educated and therefore the teachers had to give those children more attention.

A few children had computers at their homes or their relatives’ homes. These children were using computers for religious and entertainment purposes. Only one child mentioned that he writes stories on a computer. Some of the children were able to use computer independently. However, the majority of computer use was by the children’s elder brother/sisters, and participant children were not allowed.

*Case4C2FG: my elder brother told me how to play songs and games.*

*Case4C1FG: My elder sister uses computer, she plays naats (songs to praise Prophet Muhammad (PBUH)).*

The teachers conceived grade 1 and 2 children as very young to start using anything other than textbooks, information sources and giving information finding exercises.

No, they are too young for this (Case4C2T).

However, one teacher mentioned that general knowledge curriculum has provisions to practice information finding exercises, she said:

*But there is a new subject i.e. general knowledge that contains some activities (Case4C2T). But sometimes in general knowledge I ask them to write about a personality with the help of your parents. I also ask them to look around things and then write sentences on those things (Case4C2T).*

Children IL skills			
Ability to organize & arrange information		Ability to find specific information	
could write beginning of the story	wrote only familiar words		
Ability to present information		Ability to use information	
drew another picture	words used to describe given picture good boy	Drew self images	

Figure 8.10: Case four Task based activities findings

The Figure 8.11 highlights the children’s information literacy skills (IL). Overall, results showed that these children had poor IL skills. They participated in four activities, to present and use information, to organize information and to find specific information. These children were not able to use and present information (Figure 8.11). In presenting information activity, a few children drew other animals’ pictures and some wrote their familiar words ‘good boy’ to present given picture. In the task to organize and arrange information, only one child was able to recall the beginning of the story, others wrote only their familiar words (Figure 8.12). Only a few children performed the activity to find specific information (make index), they wrote some words (part two, great king) in the index column and wrong page numbers in the Page column. It seems that these children were not aware of the appropriate use of index.

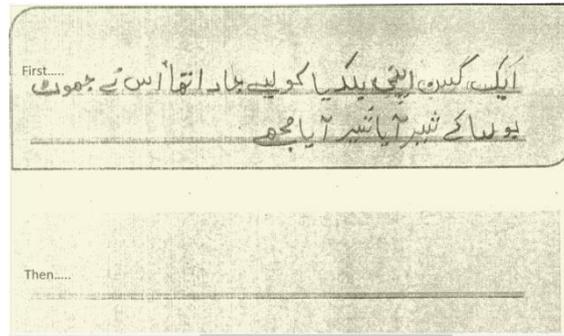


Figure 8.11: Case Four Example of arranging information

## 8.6 Case Five

This school was selected to represent those private schools which are un-registered and located in almost all streets of the cities of Pakistan. Like in other cases, this school was also accessed through personal reference. This school was situated in a lower middle class economic area. The school was placed in a small rented house. After school time, the school owner run tuition centre (academy) for the same school children or other children. For all these functions, the school had three medium size rooms, subdivided to make additional classes, an office, toilet and canteen (a wooden bench with snacks near the entrance door).

The grade one teacher had three months teaching experience and only passed secondary education (10 years of education). The grade two teacher had six years of experience and passed secondary education (11 years of education). These teachers did book reading in classrooms. The interviewees had no professional training and did not do any lesson planning. In response to a question about how they do lesson planning, the teacher replied:

From my own mind (Case5C1T).

The mostly used teaching material was whiteboard and sometimes charts and pictures. The participant teachers had no concept of classroom activities, they misperceived with physical activities.

There is exercise in morning (Case5CIT).

Sit stand which can be easily done in classrooms (Case5C2T).

The teachers also had a less motivated attitude towards the use of other teaching material and information sources in teaching. The grade one teacher's teaching methodology was forced learning with those children who were weak in class. In response to a question that how you would handle those children who were weak in studies, she responded:

[Silence].....I have to be harsh with them (Case5CIT).

I expect from them to answer my questions at the end of lecture (Case5C1T).

These teachers did not mention any specific information sources and guides to support their teaching. They were of view that curriculum books alone were enough at this age level. The participant children' most familiar information sources were newspaper and dictionary because their elders used these sources at home. In case four, children would ask information help from their elder brothers/sisters and tuition teacher as their immediate information source.

The children's daily routine after school was doing home works and Quran readings. The majority of the students attend tuition for doing home works as their parents were not educated. Teachers evidenced this fact as:

Children with uneducated parents need more attention (Case5C1T).

It is easy if their parents cooperate, some parents don't get back their child performance and we have to do everything then. Parents should take interest (Case5C2T).

It was found that these children had misperceived questions about information and information finding exercises. The grade two children used to copy each other's responses.

The participant teachers also mentioned some problems, firstly they said, they had over age children in the same class. They had to give more attention to them as their mental capacity was not much developed.

Secondly, the teachers complained about the availability of teaching material. They said if they used material, they had to buy from their personal sources. This issue maybe a possible reason that the majority of the teachers were not using teaching material in their teachings.

Children IL skills			
Ability to recognize parts of books		Ability to organize & arrange info	
could not recognized	Only recognized title	wrote story but unable to organ	
Ability to use information		Ability to present information	
Drew self images	used minimum given informatio	words used to describe given p	
		good boy	

Figure 8.12: Case Five Task based activities findings

The findings about children’s IL skills showed that these children were not able to use information as a few children drew their self-images and others used minimum given information (Figure 8.14). In presenting information task, they described the given picture with the word ‘good boy’ . .



Figure 8.13: Case Five example of using information

A few children were able to recall and write story but they did not have understanding of the task and were not able to arrange information in sequence. These children could not recognize the parts of the book. Only one child knew the title of the book.

### 8.7 Case Six

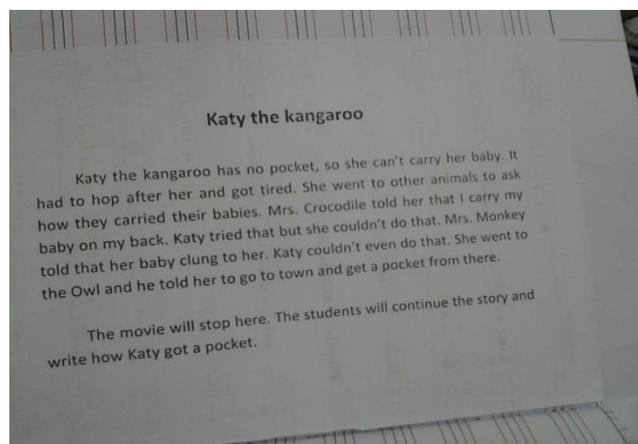
The selected case six was an elite class private school of the city of Lahore. The school building had two spacious floors with a playground and proper canteen. It was clean, fully decorated with colourful wall paintings. The classrooms were decorated with colourful charts, carpets, stuffed toys and furnished. This

school also had a proper library and library teacher. However, the library teacher did not have degree in the relevant subject. She was lawyer by profession. The participant children were very confident, talkative and everyone from them wanted to be a study participant. However, the researcher could not get a proper place to collect data, so the focus groups were conducted outside the library and interviews in corridors.

The participant teachers did not have professional teaching degrees but had master degrees in English language and Fashion Design. The grade 1 and grade 2 English language teachers had five and seven years of teaching experience respectively. The results about teaching methods showed that these teachers also used lecture method and focused on finishing curriculum books. However, the teachers were involved in brainstorming, creative writing and act on plays activities.

*in which they had to complete the story, what I did I showed them movie like some part of the movie and then I stopped the DVD and after that they have to think themselves that what would happen after that. After that they have to think themselves and then they wrote themselves like they had to write the ending of the story what I had showed them (Figure 8.15) (Case6C2T).*

*We give them questions because they are very young, we use to give them questions in a sequence and answer the questions by the use of vocabulary in front of you.....they use to write on My best Friend, My friend's birthday party, My new year eve's...(Case6c1T).*



*Figure 8.14: An example sheet of creative writing*

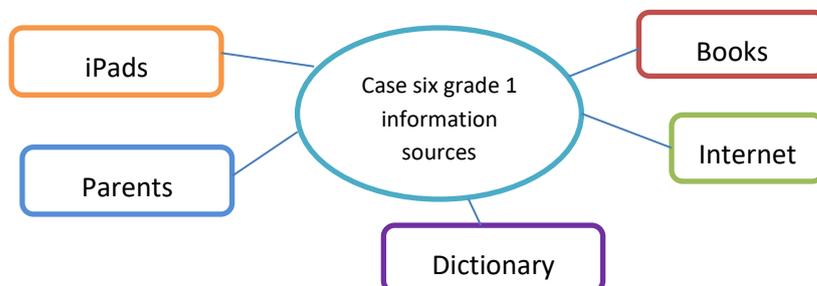
These teachers only do lesson planning as their curriculum was already planned. However, the teachers said that their head teacher supposed to approve their lesson planning. The participant teachers encouraged students to share work and display their works in classrooms. It was observed that these teachers were using multimedia in some classroom activities. However, their teaching did not involve use of other information sources nor of the library.

*Interviewer: Do you use school library in your teaching?*

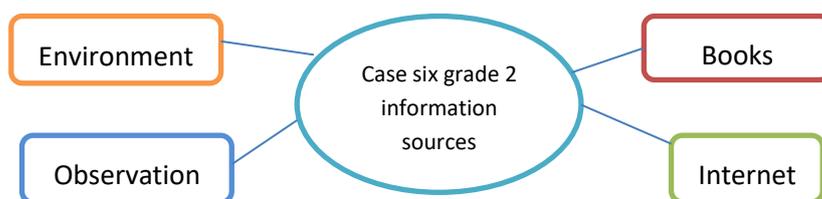
*We bring the books from library in classroom and then I show them in class (Case6C1T).*

*Interviewer: You just show them or use in some activity?*

*No I just show them, because we do not have enough time (Case6C1T).*



*Figure 8.15: Case Six Grade one information sources*



*Figure 8.16: Case Six Grade two information sources*

The case six children participants were aware of a variety of information sources (Figure 8.16, Figure 8.17). According to grade 1 children, they could get information from books, internet and parents. However, majority of the students mentioned internet, iPad, Google and laptops. The grade two children also thought about environment and observation as the sources of information. One child also knew about Gmail. It was observed that only a few children thought about their mothers as an information source. One child said:

*Yes my mother asked me, go to your laptop and find information (Case6C2FG).*

It was also observed that no child thought about the library. When researcher asked, the children explained because they did not have time to go library for their assignments.

The children mentioned during focus groups that their science teacher set information finding exercises sometimes. The grade 1 teacher also gave information finding exercises sometimes, she said:

*Sometimes.....like once we were studying nouns and I ask them to do a project on nouns, we were doing common nouns and proper nouns so I ask them to go home and cut out pictures, do not buy anything just cut out from old magazines and I also did this kind of project on adjectives also...(Case6C1T).*

*I told them to research what animals are there in the Amazon forest in the rain forest that they found, they researched on that (Case6C2T).*

*Interviewer: How they researched?*

*Case6C2T: They mostly do it on the internet.*

The focus group and interview findings also revealed that students had restricted access to computers and the internet at their school instead of their homes. It was also observed that teachers thought that these children could not use computers and the internet. The extracted quotes below evidence this fact:

*No we are not allowed, if we play games, we had punishment (children) (Case6C2FG).*

*No, not all of them are able to use internet at this level. If they want to do, they can do in my supervision (computer teacher) (Case6CompT).*

*No we do not use Google at this stage, they are very young.....they do not use internet (children) (Case6C1T).*

The teachers in case six were not familiar with the term information literacy. The grade one teacher conceived it as:

*Not really.....getting information from computer.....I think to be informed about things, only then you are literate person.....if you are not computer literate then you are not literate person (Case6C1T).*

One of the interesting findings in case six was the role of library and library teacher. There was a small but colourful library in the school. The books were properly organized using Dewey Decimal Classification system (Figure 8.18) and further by colours to separate reading levels. The library had latest books, reference books and some audio-video collection as well.



Figure 8.17: Case six library collection

The students had their library hour once a week in which they were supposed to read their library books (novels allocated to all classes as part of their curriculum). The library teacher explained in this way:

*In library hours, we are reading novels which is assigned to the classes in their curriculum, they have to read in the whole year, the emphasis is on their accent of English language*  
(Case6ALib).

*When we go to library during library hour then teacher said you are supposed to read library book*  
(Case6C2FG).

The role of the library teacher was to read allocated novels with children. She was supposed to write difficult words on a whiteboard, the objective of this practice was to learn new words and to correct English language accent. She also issued other library books to children according to their reading level. For reading books from the library, children had to maintain their book records (Figure 8.19).

After reading books, school teachers asked questions from the read book to build the students' recall level. Then teachers sign on their records to ensure that the student has read library book. The results showed that this school was involved in the practice to build reading habits among children and then to build their recall levels.

Date	Title of Book & Pages Read	Comments Teacher/Parents
12/10/14	The Lad who went to the North Land	Signe
31/11/14	The Princess & the Pea	Signe
28/1/14	Little Red Riding Hood	Signe
29/1/14	The Princess & the Pea	Signe
27/1/14	The Princess & the Pea	Signe
03/02/14	Father Bear Comes Home	Signe
06/02/14	Tom Thumb	Signe
21/02/14	Goldilocks and the 3 Bears	Signe

Figure 8.18: Example of Children's Book records

While talking about issues, the teachers complained about the lengthy and inflexible curriculum. The librarian also mentioned that her work was tiring and she was very overburdened. She said:

*It's difficult for me to go back and check all the school students because whole school comes to me and I am all alone* (Case6LibT).

Children IL skills		
Ability to present information	Ability to organize & arrange information	Ability to use information
words used to describe given picture	could organized story	used half given informati
confused		
	wrote story but unable to	used maximum given inf
lonely		
sad		
scared		
	Understanding main ideas	Ability to find specific infor
	could expressed thought	
described picture,reason and background		Ability to recognize parts of
nothing to eat	could thought about mail	Recognized title, author

Figure 8.19: Case Six Task based activities findings

The findings (Figure 8.20) related to task based activities showed that these children were able to present, use and arrange information. The majority of the students were able to perform well in all task based activities. They described (present information) given picture in different ways (lonely, sad, scared, crying, confused) and a few children also wrote about the reasons (that why the picture boy was sad) and the background (flowers, garden) of the picture). However, the children were not able to find specific information from a print source. It was found that these children were not familiar with the words ‘index’, ‘glossary’ and ‘table of contents’. Also the children did not know about the spine label of the book and they left the relevant box blank in recognizing parts of book activity. The participants were seeking help from the researcher and were not sure about these terminologies (index, glossary, table of contents).

## 8.8 Concluding Remarks

This chapter summarized the distinctive features of all six cases. The detailed results were described in previous chapters. The results here present a holistic picture of each selected case. It was described how teachers were teaching in classrooms and also analysed in terms of information literacy content and practice. The results related to participant children’s information behaviour and information literacy skills were also presented for each selected school.

Additionally, findings revealed the role of school libraries and librarians in terms of library services and information literacy practice. The collected data from interviews, focus groups, task based activities and observation was presented for individual cases.

## **Chapter 9 : Cross Case Analysis & Model Development**

### **9.1 Introduction**

The previous chapters discussed the individual findings of cases and major themes which emerged. This chapter aims to present cross case analysis of all selected cases of schools. The discussion will highlight the main connections among cases to produce new knowledge. Khan & VanWynsberghe (2008) argued that case study researchers develop expertise and their learning from cases is accomplished by cross case analysis. This chapter will develop cross connections between similar factors and related concepts. In discussion section, this chapter provides connections of present study with previously conducted studies.

The next section of this chapter discusses situational analysis in combination with thematic analysis. The findings and mapping techniques used in this analysis are presented and elaborated. Finally, based on the analysis, this chapter introduces a proposed information literacy implementation model and information literacy process based curriculum approach for primary schools.

### **9.2 Building, Classrooms & Teaching Environment**

To get a holistic picture of the present situation, it is important to study the teaching environment and infrastructure of selected schools. The data about school buildings, classrooms and teaching environment are mainly based on observation and field notes. The results of this section will present the main connections between all selected six school cases of the Lahore city. The physical buildings of schools in cases one,two,three (public schools) and six (elite class private school) were big, spacious, clean and had big playgrounds. The cases one, two and three (public schools) buildings were surrounded by more than one playground. It can be concluded that city public schools (cases one, two and three) and elite class private school (case six) had similarities in terms of physical building (Figure 9.1).

The case four (private trust) and five (private un-registered) had links in terms of physical building (Figure 9.1). The Figure 9.1 demonstrates that both schools' physical buildings were small and had narrow entrances. These schools were housed in small houses and also located in residential areas. There was no playground for school children in these schools. The main entrances of the schools were very narrow with a small gate and even the main gate of school in case four was broken.

The researcher also observed the classrooms of these selected schools. The cross case connections were that classrooms in cases one,three,four and five (public, private trust and un-registered schools) were dull and dark. There was no backup of electricity during the load shedding hours (due to an energy crisis, Pakistan is facing 6-8 hours load shedding each day). When the researcher entered in the school (case four), it was noticed that children were studying in hot and dark classrooms due to electricity load shedding. In cases one, two and three the classrooms were big, spacious and had big physical buildings as discussed above. The data

about classrooms in case two was not available to the researcher, as the school’s head teacher did not allow a visit to the classrooms.

In cases (one, three, four and five), the classrooms had a traditional old look, furnished with old brown furniture (Figure 9.1). Some old charts were also displayed in the classrooms of cases one, three and five. It was observed during visit to classrooms that a few children’s benches had broken legs. The children were swinging on these benches. In contrast, the classrooms of case four and five (private trust and un-registered private school) were very small, as these schools occupied small houses and were located in residential areas. In these schools, the small classrooms were further divided to make additional rooms (Figure 9.1). These schools attracted parents by providing easy access to homes and a lower fee by hiring less experienced and less qualified teachers.

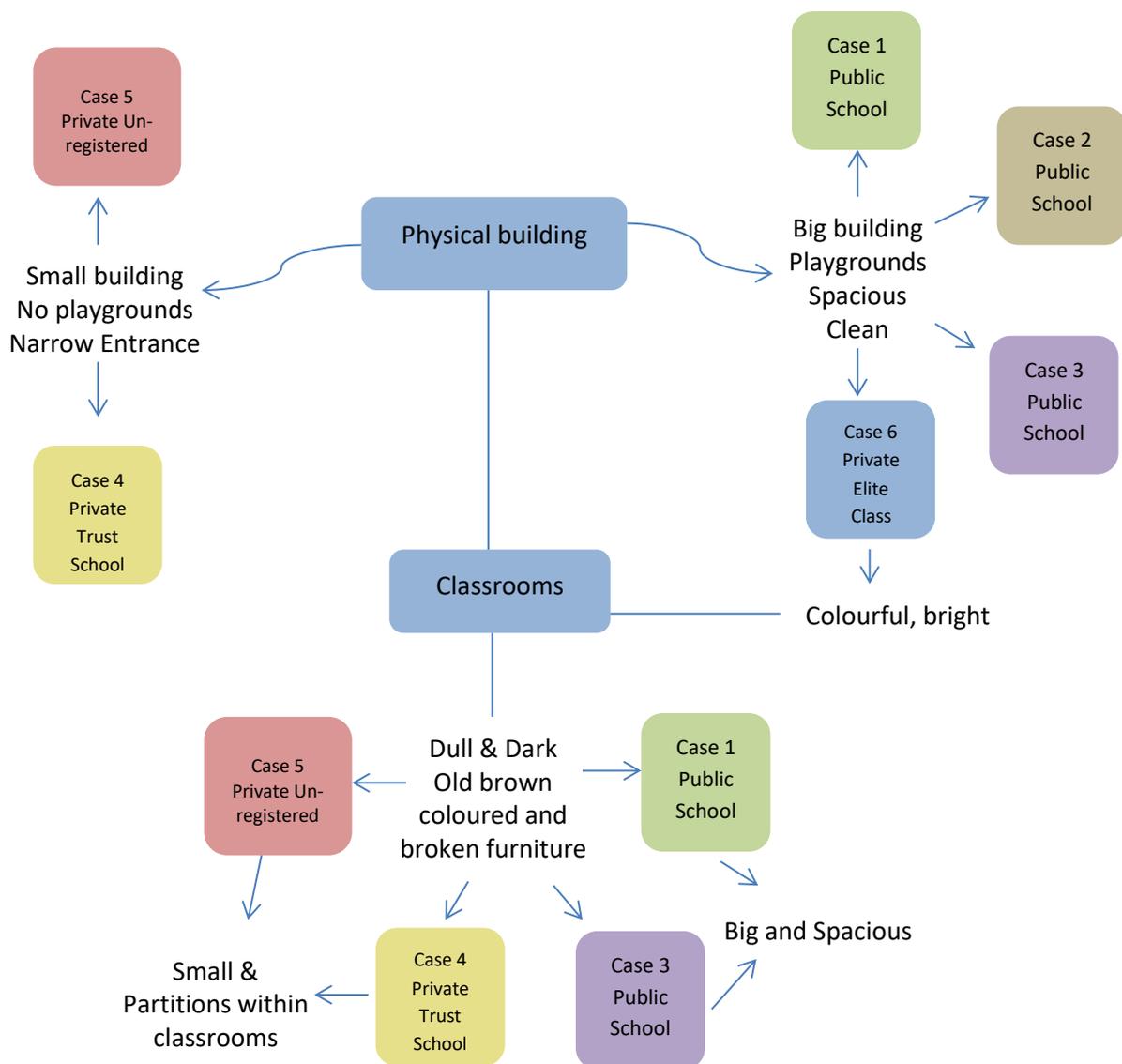


Figure 9.1: Connections between cases in terms of physical building and classrooms

The description of classrooms of case 6 (elite class private school) could not develop links with other selected cases of schools (Figure 9.1). In this school the classrooms were bright and colourful. The classroom area was decorated with colourful charts, stuffed toys and carpet. The furniture for children was new and colourful. The art works of students were displayed outside the class and in corridors. It can be concluded that only the elite class private school had a lively and colourful teaching environment for teachers and children. However, the public schools had big physical buildings but teaching environment was dull, old and traditional.

### **Key points of section 9.2 towards model development**

- It was observed that public schools of city Lahore have bigger and more spacious buildings than private schools.
- In spite of acquiring big buildings, public schools' classrooms were dull, dark and had old and broken school furniture like private trust and private un-registered schools.
- However, the elite class private school was also located in a residential area but occupied a big house (building) to provide better infrastructure.
- The private trust and private un-registered schools only targeted access and had poor infrastructure in terms of building and classrooms.
- The teaching environment of elite class private school was tidy, attractive, interactive and colourful.

### **9.3 Teaching Strategy, Use of Instructional Material & Classroom Activities**

The information literacy practice in schools is directly related to teaching strategy and classroom activities. This section will discuss the cross case links related to teaching methods, teaching strategy, used instructional material and classroom activities.

It is important to study the results related to teachers' qualification and experience of teachers. The connections (Figure 9.2) show that teachers working in public schools (Case one and three) were educated and more experienced than teachers working in trust and private schools. These teachers had not only acquired a general masters' degree, they also had professional education. None of the teachers in private and trust schools acquired professional education degrees.

The teachers working in trust and unregistered private schools had almost the same qualification and were less experienced. Some of the teachers were part time secondary school students with few months teaching experience (Figure 9.2).

The teachers hired by the elite class private school also acquired masters' degree and had experience of 5-7 years (Figure 9.2). It was also observed that in public schools the class teacher teaches all the subjects.

However, in the elite class private school, they hired teachers on the basis of their expertise in each subject. For example, in case six (elite class private school) one teacher did masters' in English Language and she was

teaching English language as a subject. It can be concluded that teachers working in public and elite class private schools were educated and experienced. The trust and un-registered private schools hired secondary school students or secondary school passed, less experienced teachers. Their hiring criteria are very much lower than public and elite class private schools.

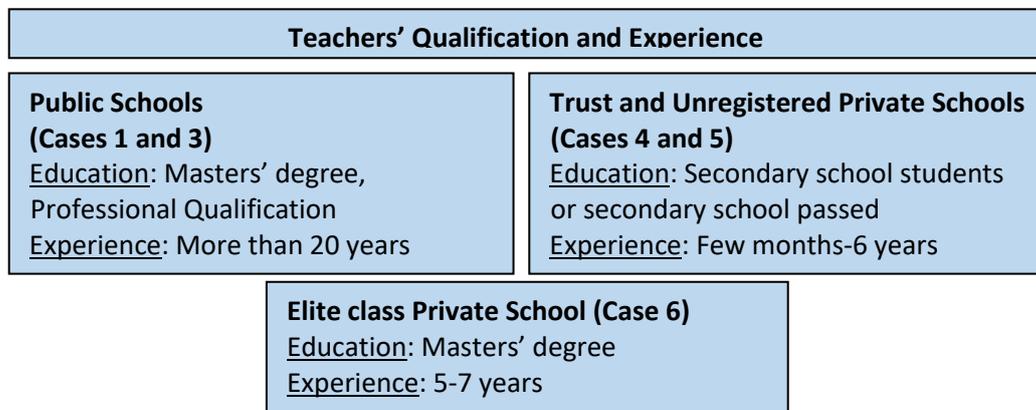


Figure 9.2: Teachers' Qualification & Experience

It was found that cases one, three, four and five (public, private trust and un-registered private) have links in terms of teaching methods, teaching strategy and use of instructional material (Figure 9.3). In these schools, the favourite teaching method was lecture and few teachers mentioned about brainstorming, for example introducing topics before lectures. Here, the case 6 (elite class private) had also links with cases one, three, four and five, as mostly teachers were teaching by lecture method.

The findings of cases one, three, four, five and six also showed connections in developing teaching strategy (Figure 9.3). The school teachers were focused on covering curriculum books. It was revealed that teachers in cases one, three, four and five were mostly teaching by giving examples and translating English language words into Urdu (the local language). These teachers did not mention any lesson planning during interviews. The teachers of public schools (cases one and three) were relying on teacher guides for guidance (provided by government). However, the other teachers (cases four and five) did not indicate any lesson planning or use of teacher guides.

In addition, the use of instructional material in teaching also showed links between cases one, two, three, four and five. The commonly used instructional material in all these cases was the blackboard. Due to the unavailability of teachers' interviews data in case two, the teaching method and strategy cross connections could not be identified. However, during focus groups, children mentioned that their teacher used blackboards for teaching purposes.

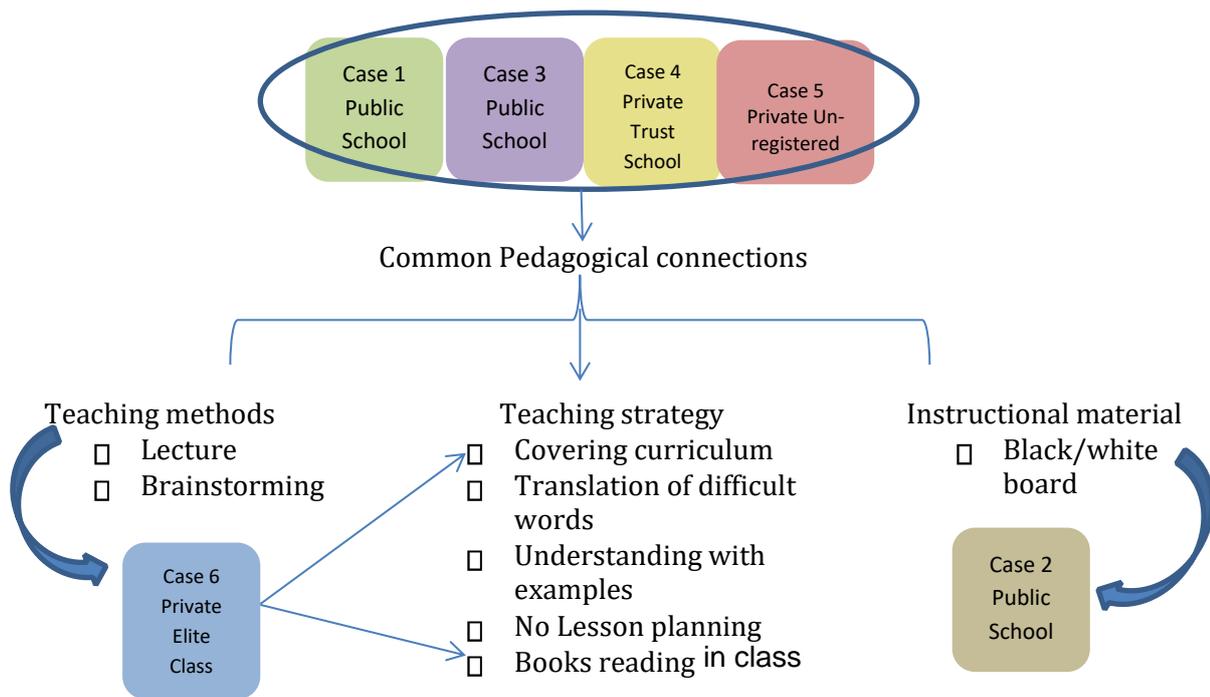


Figure 9.3: Teachers' Teaching Methods, Strategy & Use of Instructional Material Connections of Cases

Table 9.1 exhibits the variety of classroom activities and practice in all six cases of schools. The most performed activity by school teachers was storytelling. The cases one, two, three and five showed connections in this regard (public and un-registered private school). The results revealed that cases two, three (public schools) and six (elite class) were involved in similar classroom activity (watching movies/cartoons) but in public schools (case two and three) not on a regular basis. However, in case six, the teachers performed this activity within classrooms.

The perceptions of teachers of cases one, four and five (public, private trust, private un-registered) were similar as they relate their classroom activities to physical activity. In response to a question about classroom activities, these teachers said that within classroom they performed actions while reading poems and children do physical work, morning exercise and also play indoor games.

The practice of creative writing and acting on story characters were common activities among cases three and six (one public and elite class private school). However, in case three only the class 1 teacher performed both these activities. In case three, the class 1 teacher personally thought that children cannot learn without activities. This teacher was young and had less teaching experience.

On the other hand, her other colleague was not much involved in classroom activities, either.

Although in case 1, classroom activities were planned and integrated into the curriculum. The least classroom activities were observed in cases two, four and five (one public, private trust and unregistered private schools).

Table 9.1: Classroom activities comparison of all six cases

Classroom Activities	Case 1	Case 2	Case 3	Case 4	Case 5	Case 6
Physical Work	✓					
Making actions in poem reading	✓			✓		
Board Writing	✓					
Story telling	✓	✓	✓		✓	
Indoor Games	✓				✓	
Watching movies/cartoons		✓	✓			✓
Questioning	✓					
Creative Writing			✓			✓
Word Games						✓
Puzzles						✓
Sharing information						✓
Working on worksheets			✓			✓
Acting on story characters			✓			✓
Balloons activity				✓		
Flash cards				✓		
Group discussion			✓			

### 9.3.1 Use of Information Sources in Teaching

This section will discuss the type of information sources which teachers were using to support their teaching. It was observed that teachers were not using a variety of information sources. The most common source other than textbooks was a dictionary identified in cases one, five and six.

### 9.3.2 Teachers' Attitude to Learning

It was discovered during cross case connections that teachers from cases one, four and five were not motivated to improve teaching. They were not curious to learn and to make their teaching better. The findings revealed that teachers from cases one and four were forced to learn new methods of teaching and IT skills (rather than doing it willingly).

It was commonly observed that all selected teachers from all six cases thought that children of classes 1 and 2 could not learn basic computer skills and use of the internet. According to these teachers, primary school children are too young to understand difficult concepts and to explore technology.

### 9.3.3 Teachers' Training Sources

It was evident only from cases one and three that teachers attend refresher courses and training workshops offered by the government. According to these teachers, guides provided by the government are very important sources of guidance and training.

#### **Key points from section 9.3 towards model development**

- Public school teachers were educated, had additional professional degrees and were more experienced than private school teachers.
- In public schools at primary level, the class teacher teaches all the subjects.
- The elite class private school hired educated and subject teachers.
- The private trust and un-registered private schools hired less experienced and less educated young teachers.
- The favourite teaching method of all the participant teachers was lecture method, however, some teachers mentioned brainstorming.
- The public and private school teachers' teaching strategy was to cover curriculum text books and books reading in classrooms.
- The public, trust private and un-registered private schools' teachers had common strategies to translate difficult words and promote understanding with examples. These teachers had no lesson planning before their lectures. However, the public school teachers were depending on teacher guides provided by government.
- The most used instructional material by all participant teachers was black/white board.

- The public school and trust private school teachers had a very weak concept of classroom activities, they confused activities with physical work.
- The public school teachers did not involve children in creative, innovative and interactive activities. Only one teacher from case 3, who was young and less experienced, talked about creative writing activities.
- The elite class private school teachers conducted intellectual, innovative and interactive activities in classrooms (puzzles, word games, information sharing etc.)
- The participant teachers from all six cases were not using other information sources than text books to support their teaching.
- One common finding revealed from public, trust private and un-registered private schools was that teachers were not active and showed lack of interest in improving their teaching. Even after attending refresher courses, public school teachers were not practicing learnt methods in their teaching.
- Some of the teachers' were of view that they had masters' degree and to teach primary level of education, their knowledge is sufficient.
- The participant teachers' common perception about grade 1 and 2 children was that these children are too young to practice information finding activities and to use technology.

#### **9.4 Role of School Librarian & Library**

The cross case connections related to school librarian and libraries will be discussed in this section. The overall situation of school libraries and role of librarians is discussed in chapter 6. Among selected cases of schools, only two schools (one public and one elite class private school) had proper libraries and librarian/library teacher. The trust school had a so called library which was actually a storeroom of books (see chapter 6).

Figure 9.4 shows the role of librarian/library teacher in case three (public school) and six (elite class school) and the connections between both. It was established from findings that in both cases, the librarian/library teacher were performing dual duties. They were teaching as well as managing the school library. The librarian in case three (public school) said that she teaches more than doing librarian's work.

The role of the library teacher in case six (elite class private school) was to teach and run their novel reading program. She was also involved in correcting their English language accent. She was also responsible for issuing library books according to children's reading levels. It seems that the library teacher was an English language teacher instead of a media/information specialist. There are similar findings from case three but here the librarian was teaching subjects other than English language.

The librarian in case three had a professional degree in librarianship and explained her duties as shown in Figure 9.4. However, during focus groups children did not mention any library service offered by the librarian (for example storytelling, arranging colouring activities). The results revealed that in public sector, the librarian had support of other teachers to manage the library and conduct the library hour. In the private sector, the library teacher was running a reading program and managing the library all alone. She also complained during the interview that she is overburdened.

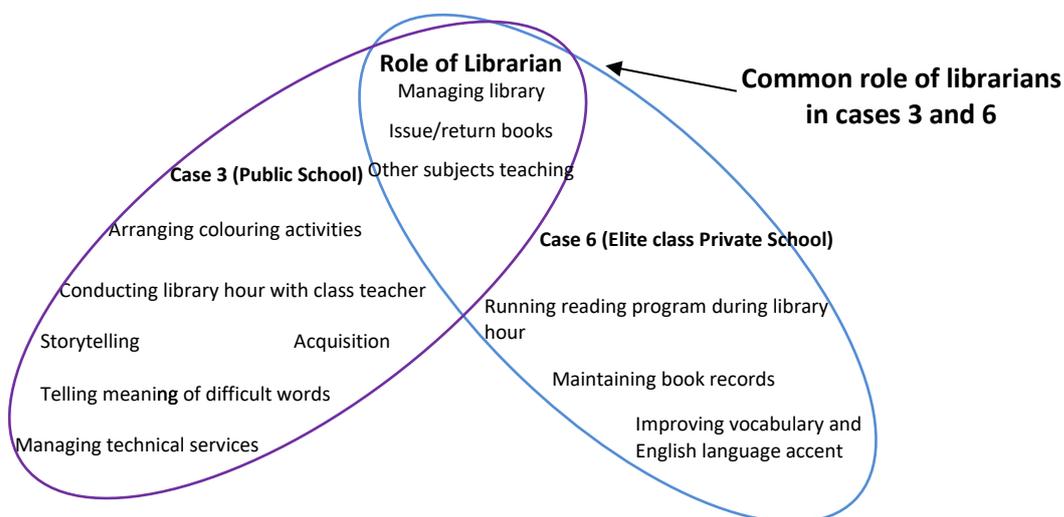


Figure 9.4: Cross case analysis of role of librarians

The Figure 9.5 represents the use of library space in the selected schools. The results show that two schools (case three and six) had proper libraries and one (case four) had a books' store room which they called a library. However, the researcher could not visit the case three school's library but during focus groups children mentioned about the library as a reading place. The school staff did not allow the researcher to visit the school library due to time limitations.

The common factor among the libraries of case three (public school) and case four (un-registered private school) was that they were used as reading places and for quiet sitting. The libraries of case three (public school) and six (elite class private school) offered library hours to each grade level once a week. However, the objectives of conducting library hours were different in both cases. In case six, the purpose was to run a novel-reading program and in case three, during library hour children read and shared story books. Sometimes, they only went to visit the library or their teachers asked them to sit quietly. The detailed functions of these libraries were discussed in chapter 6.

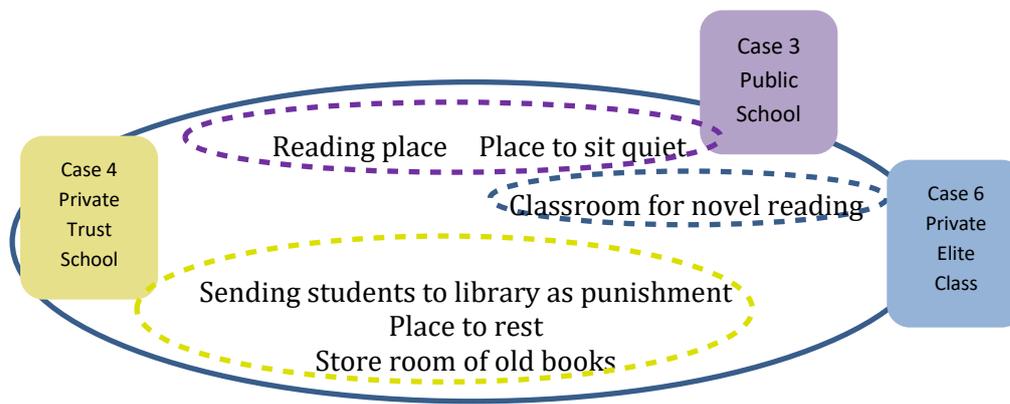


Figure 9.5: Cross case analysis of use of school library as place

The participant children were also asked during focus groups how they conceived of a library. Some children were of view that it is a reading place with books. However, the majority of the participants from public, private trust and un-registered private school said that they never saw a physical library. A few children considered a cabinet of books as library and some other conceived of it as a play area for them. The children from the private trust school explained that they go to the library to store their old books and old holiday home work registers.

#### Key points of section 9.4 towards model development

- Out of three selected public primary schools, only one school had library and related professional degree holder librarian.
- Only a few participant children from public and private trust and un-registered school had seen a physical library.
- The private trust school had a storeroom of books which was called library.
- The elite class private school hired librarian/teacher to run their novel-reading program. She also had a responsibility to improve their English language vocabulary and to correct accent. This library teacher had no qualification in librarianship. She had no staff support, however she was teaching during library hours, issuing books to students and managing the library alone.
- The public school librarian was teaching more than managing the library.
- In the elite class private school, the library place was used as a classroom. However, in the public school (case three), it was a reading and quiet sitting place. In the private trust school, it was storeroom for unwanted books.
- The public school (case three) had a proper library building and professional librarian. The librarian had support of teachers during library hours. The participant teachers; mentioned that during library hours children visited library or sometimes read stories.

## 9.5 Participants' Information Behaviour

This section will present the cross case analysis of participants' information behaviour from all six cases of schools in Lahore, Pakistan. The findings will show links between different types of school children and between teachers of selected schools of the city of Lahore.

### 9.5.1 Children's Information Behaviour

The results develop connections between participant children's behaviour, their familiarity with information sources and their use of technology (Figures 9.6 and 9.7). Figure 9.6 demonstrates that children from public, private trust and un-registered private schools (cases one, two, three, four and five) were not much different in their attributes. They all were less confident, quiet, scared and were trained to be obedient to follow teachers' instructions. It was also revealed that children from these schools were not very familiar with technology (for example computers, audio/video material, the internet).

It was found that children of public, private trust and un-registered private schools had restricted access to print and technology sources (although this could not be evidenced in one public school, case three). Their parents and elder brother and sisters did not allow them to use these information sources without their permission. They were only allowed under the supervision of their elders and some of the children could only use them for religious purposes. It is cultural in Pakistan that parents have very cautious behaviour towards their children. Figure 9.6 also identifies that these children had low recall level, when they were asked to share the stories they read before, they were struggling hard to reflect back those stories.

During cross case analysis, it was also observed that participant children from public and unregistered private schools were copying each other's responses, specifically when they were asked, how they will search for information. It seems that these children had very weak understanding about the information searching process.

One important finding was revealed when teachers from cases one, five and six talked about school children's abilities during teacher interviews. They were of view that children of grade 1 and 2 are very young to practice exercises on information finding. These teachers also perceived that this age group (mostly 5-7 years) of children cannot use the internet. However, it was indicated from the children's focus groups' findings that those children who did not have restricted access were very confident in using technology and the internet.

The cross case connections were also established among children from case two, three, four and five (two public, one private trust and one un-registered) (Figure 9.7). These children were familiar with those information sources other than their school text books which their elders used (for example dictionary, newspaper). The children from public and private trust schools preferred their elder brother/sisters as an information source. It was also found that children of cases one, two and five were confused between the

concept of poems and stories. During focus groups, when they were asked to share any previously read story, they started singing poems.

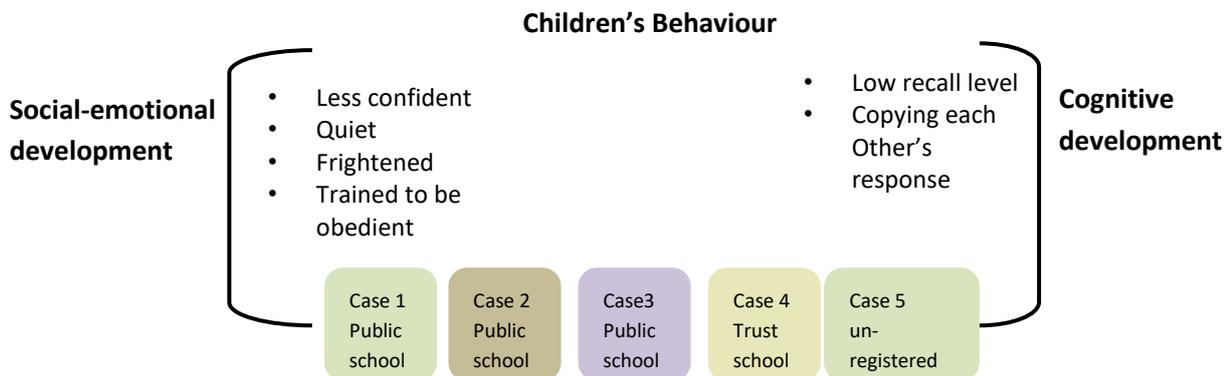


Figure 9.6: Children Behaviour and cross case analysis

The results about use of technology by participant school children also established connections between cases one, two, three and four (All public schools and un-registered private school). Although teachers' were of the view that these children cannot use the internet, findings (Figure 9.7) show that these children were using the internet for entertainment, religious and communication purposes. However, the majority of the children were taking assistance from their elder brother/sisters in using computers and the internet as they were not much aware of technology. These results highlighted the underlying theme that teachers, parents and elder brother/sisters were not allowing children to be independent in the use of the internet and computers. It is cultural in Pakistan that elders always perceive about children that if they use things independently, they will do something wrong or make those items non-functional.

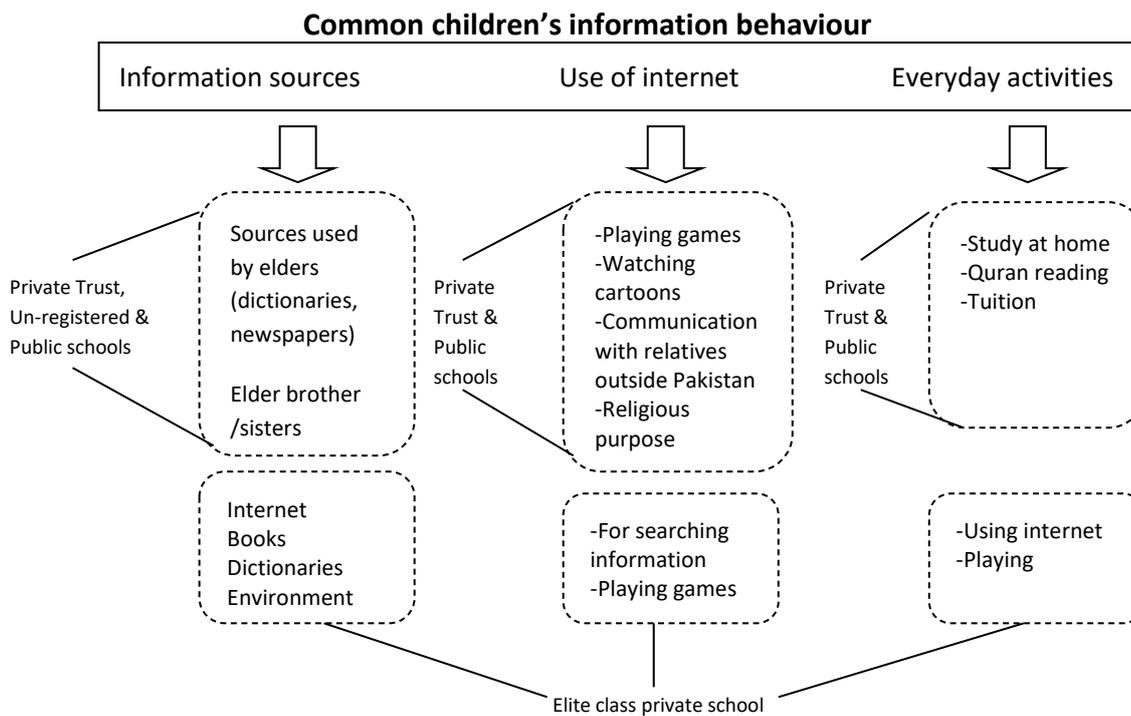


Figure 9.7: Cross case connections of Children's preferred information source and use of internet

### 9.7: Cross case connections of Children's preferred information source and use of internet

The results discussing children's information behaviour also show links when children were asked which source they will consult to find information. Figure 9.7 reveals that children from cases one, two and four (two public and one un-registered private school) preferred to consult their elder brother and sisters as an information source.

#### 9.5.2 Children's everyday activities

The analysis of children's everyday activities discovered that cases one, two and four participants had connections (two public and one private trust school). It was observed that children had similar daily routines after home time (Figure 9.7). They recounted during focus groups that after home time, they went for home tuitions, later for Quran reading and then they studied with their parents or elder brother/sister.

The findings related to information behaviour of children participants show links between public schools, private trust school and un-registered private school in many aspects. The public schools were located in different economic areas of the city of Lahore, however the children studying in these schools had common information behaviour.

#### 9.5.3 Teachers' personal & professional information sources

The analysis was also made to see the links between teacher participants' information sources. The Figure 9.8 illustrates the connections between all cases. The case two (public school) results could not be analysed as teachers' interview data was missing. All participant teachers' preferred to consult personal references, colleagues, friends and family to fulfil their personal information needs.

Also results about teachers' preferred professional information sources other than textbooks were examined. However, the participant teachers could not mention other information sources, but their desired information sources to support their teaching were textbooks and the existing curriculum.

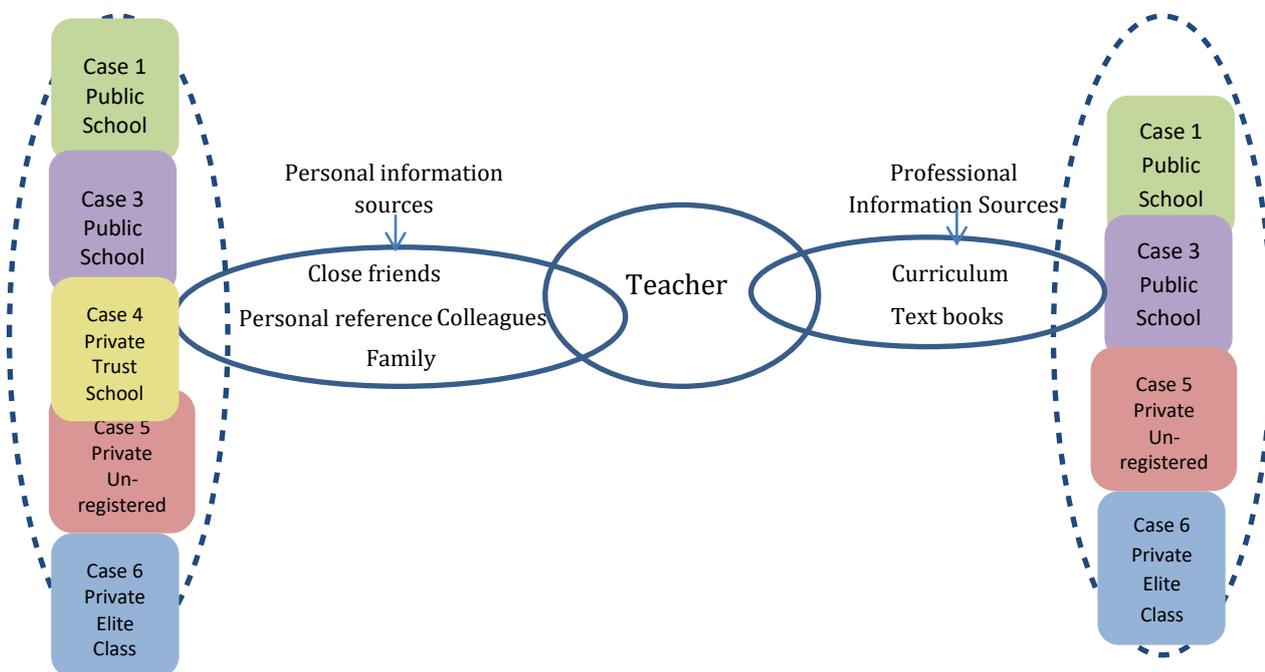


Figure 9.8: Cross case connections between Teachers' preferred personal and professional information sources

### Key points of section 9.5 towards model development

- It was discovered that children studying in public and private trust and private-unregistered schools were not much different in their social-emotional and cognitive development. They all have the same behavioural attributes.
- The participant children from these selected schools (cases one, two, three, four and five) were focused on their family members as preferred information sources and exposure of information sources.
- It was found that the Pakistani cultural approach of not relying on children as independent users or the fear that the children might damage technology was a big hurdle for children's confidence and independence.
- A few participant children were using computers and the internet but under the supervision of their elders.
- The use of the internet was limited to religious and entertainment purposes (playing games, watching cartoons and communication).

- It seems that selected children were overburdened due to the tuition culture and compulsory study at homes.
- The teachers were also not very familiar with varied information sources as their desired information sources were their personal references, text books and the curriculum.

## **9.6 Information Literacy Practice**

Information literacy was evidenced in three cases (Case three, Case four and Case six) (one public, private trust and elite class private school), among these one is public school where the less experienced (young) teacher was involving students in creative writing and information sharing practices. Similarly, one teacher from the trust private school also talked about creative writing classroom practices. The teachers from the elite class private school were also conducting these information literacy related practices in their classrooms. It was also revealed that information literacy practice had connections with English language curriculum in all three cases of schools. Note that it was also discussed in chapter 4 that the English language curriculum has provisions for information literacy practice.

## **9.7 Children's IL skills**

The cross case connection analysis also addresses the children's information literacy skills. The data mainly consisted of activity sheets filled in by school children following focus groups. The details of task based activities provided in chapter 7, however is briefly summarized in this section as a reminder.

The six task based activities were adopted and customized in some cases to measure the information literacy skills of the participants. It was done to get another angle on the situation. The examined skills were identified after considering research based IL models developed in or for schools. The activities include the ability to present information, ability to organize information, understanding of main ideas of information, ability to recognize book parts, ability to find specific information and ability to use information.

These activities were conducted following focus groups, the selected participants were asked to follow the instructions to do the activity, as written on worksheets and also verbally elaborated by the researcher. The results of the task based activities show that children of the elite class private school performed well when compared to other schools.

The participants from public schools could not perform better than elite class school children with few exceptions, however they were slightly better than children studying in private trust and private un-registered schools. The detailed analysis is discussed in chapter 7. The overall findings show that a few public school children were able to present information mostly verbally and were able to use information. However, very few were able to organize information and could express their preferences about information sources.

The case four and five (private trust and private un-registered school) children had very low information literacy skills as compared to public and elite class private schools. Only a few children from these two schools were able to use, present, or organize information and could recognize the title of the story books provided.

In contrast to the above discussion, the elite class private school children had high information literacy skills, they showed low performance, only when they were asked to find specific information.

### **Key points of section 9.7 towards model development**

- The participant children of this study who belong to public, private trust and un-registered private schools possessed very low information literacy skills compared with children studying in the elite class private school.
- It was found that the majority of the children were weak in identifying main parts of the book and finding specific information from a print source.
- It was also observed that public school children performed better than private trust and private un-registered schools.
- As compared to other activities, children performed better in activities which involved using and presenting information.
- The children who belonged to public, private trust and private un-registered schools were not good at organizing information.

## **9.8 Discussion**

In this section consideration will be given to the findings in relation to the previous available published research. It is important at this stage to go back and make connections with published literature which leads towards development of a proposed model. Discussion in the light of previous studies will also identify key areas to be included in proposed model. Although cross case analysis helped in identifying major factors, relating them to the literature will strengthen positioning of those factors.

The study's results will be discussed in comparison to the published work. The main topics (for example type of schools, curriculum in terms of information literacy, pedagogy, attitude and behaviour of teachers, role of library and librarian, information literacy practice and skills of school children) will be debated in the light of the literature.

### **9.8.1 Public Schools**

The study found that not all public primary schools have library and computer laboratory facilities. Out of three selected public schools from different economic areas of the city of Lahore, only one school which was located in upper middle class economic area had library facility. However, none of the school mentioned that they have an IT lab facility. The annual status of education report 2013 (ASER) Pakistan also revealed that

100% public schools do not have computer labs and 92% do not have libraries. These statistics also confirmed that in Pakistan public schools do not have lab and only few schools (8% according to ASER) have library facility.

During interviews, one public school teacher complained about non-availability of teaching material. The findings about non-availability of teaching material are supported by two important information sources; the Ministry of Education, Pakistan in its' report (Quality of Primary Education, 2003) and the Annual status of education report (2013). Both sources confirmed the fact that government primary schools were provided with teaching kits in the mid-1970s and the kits were never repaired or updated. These reports also mentioned that the majority of the primary schools did not have teaching kits and supplementary reading material. Due to these facts, Perveen (2011) criticized government policies and stated that target objectives in the educational policies are not practical and are over ambitious.

### **9.8.2 Private Schools**

The ASER 2013 report stated that the situation of private schools is not satisfactory though better than public schools. However, the present study discovered that private schools with the exception of the elite class private school had worse conditions than public schools. These schools had poor infrastructure and were situated in small rented houses in residential areas of the city. Specifically, the un-registered private school had partitioned classrooms, so that even different grade level children were sitting in same classroom. Statistics in the ASER (2013) report showed similarities with the findings of the present study. The report mentioned that none of the surveyed schools had a computer lab, 81% did not have libraries and 66% had no playground. It was also observed that there was no computer lab and no playground in private trust and un-registered private schools. The ASER report concluded that even though, compared with public schools, private schools are considered better, private schools still lack standard facilities. In Pakistan, some private schools are registered with the government and the majority of private schools are un-registered. Only elite class private schools have better infrastructure and a good learning environment. It was also evidenced from a study conducted in India that some private schools are recognized and some are not recognised by the government (Pal, 2010). However, these schools had better infrastructure than public schools, unlike the situation in Pakistan.

### **9.8.3 School Children**

The results of this study showed that elite class private school children possessed better information literacy skills than public schools' children. These results were not dissimilar to other studies' (Das, Pandey, Zajonc, 2006; Lloyd, Mete & Grant, 2009; Ahmed et. al., 2013) results. Das, Pandey & Zajonc (2006) noted that rich and private school children performed better than poor and public school children specifically in language subjects. These studies also confirm that children's scores differ based on geographic area (different districts) of schools. This association is also supported by the present study's results where

differences occurred among children's learning skills, school infrastructure and facilities. The schools located in better geographic areas had multimedia rooms and library facilities. Ahmed et.al. (2013) claimed that a possible reason for the performance of private school children is that young teachers are familiar with modern teaching methods. In contrast the present study found that young and less experienced teachers in private trust and unregistered schools were using traditional teaching methods.

Das, Pandey & Zajonc (2006) also reported that third grade public school children can hardly read and write. These results concur with the present study's findings. The majority of public and trust private and unregistered private school children were not able to write complete sentences. During the presenting information activity, participant children expressed that they could not write but could tell verbally.

#### **9.8.4 Curriculum**

It was evidenced from the results of all six cases that teachers were focused on covering text books. Teachers said that they had pressures to finish the whole content of text books. The teachers in these selected schools did not have a curriculum copy of their own. This fact was confirmed by Ministry of Education, Pakistan in a report (2003) which said that copies of the curriculum had never been provided to the teachers. Similarly, the national education policy declared that activity based work was given least importance in Pakistan and the centre of whole the curriculum was textbooks, that teachers did not use the curriculum but rather focused on the textbooks assigned to that level (National Education Policy, 2009). By comparison, in this study only the elite class private school teachers were practicing activity based work in classrooms.

The present study analysed the English language curriculum in order to find information literacy integration. It was found that the curriculum had possible connection for the practice of information literacy, however implementation was a big issue. Williams & Wavell (2006) also found information related activities in different secondary school subjects including the English language curriculum. While evaluating the primary curriculum, Perveen (2011) also found that objectives of the curriculum were not fully achieved and the implementation process was weak.

The public school teachers, while talking about their problems, told the researcher that the curriculum is very lengthy and inflexible, even that it is sometimes difficult for them to teach within time frame. Similarly, Williams & Wavell (2006) identified that secondary school teachers in Scotland considered IL as cross curriculum skill and not part of their subject. The teachers were of view that due to current curriculum pressures, they are not able to concentrate on other learning activities and its evaluations. These teachers also pointed out students' negative attitude towards learning, this evidence also supports present study's findings. Perveen (2011) also identified in her study that the majority of the teachers found English language and Science curricula very difficult because some of the concepts cannot be explained in practical terms. She

highlighted that the curriculum is very structured, inflexible and lengthy. The basic reason is that teachers are not involved in the development of the curricula; therefore they misunderstand curriculum as textbooks.

In chapter four, the present study assessed the English language, General knowledge and Mathematics primary curricula and found that the present English language curriculum (2006) has more provision for the practice of information literacy. In addition, the General knowledge curriculum has also related content which incorporates the use of library and information sources other than text books (see chapter 4). This fact is acknowledged by Majeed (2007) in his study which notes that the present curriculum document is very comprehensive in its nature, incorporating learning objectives, learning outcomes, scope, activities, methods of teaching, evaluations and proper guidelines for textbook writers. He also stated that the current curriculum focuses on life skills, critical thinking, application, analysis, synthesis as well as behavioral knowledge.

This integrated curriculum project was funded by UNICEF and the outcomes included reduced children's school bag size and teachers' focus on students' character building. To fulfil these objectives, books were revised and teachers' manuals were prepared including lesson plans, assessment questions and exercises. However, teachers had no concept of integrated curriculum and teachers' manuals (guides) were not prepared at large scale (Quality of Primary Education, 2003).

### **9.8.5 Teachers**

The teachers were interviewed to inquire about their teaching strategy, methods and their personal and professional information needs. The results about participant teachers' demographics showed that public sector teachers were more experienced and educated than teachers in the private sector. These findings are consistent with two earlier studies (Ahmed et. al., 2013; Arif & Najam, 2003). The authors also found that government teachers are more experienced with high salaries but lack modern pedagogical skills and use of the latest technologies. The analysis of the present study data also established that teachers and specifically the experienced teachers were using traditional teaching methods. When they were asked about the use of other information sources and activity based teaching, they explained that their own knowledge is enough to teach primary level school children.

While explaining the reasons of not implementing or practising information skills, the present teachers complained about lack of time and lengthy curriculum. Williams and Wavell (2006) study of teachers' conceptions of IL, identified similar problems. The participant teachers wanted to practice IL, but did not find time in the curriculum, as they already had too much to teach.

Burke, et. al. (1987) described eight stages of teachers' career: pre-service, induction, competency building, enthusiasm and growth, career frustration, stability, career wind-down and career exit. Maskit, D. (2011) examined the teachers' attitudes through different career stages as described by Burke, et. al. (1987). The

author found that teachers who were at their career frustration and career wind down stages scored very low in terms of changing teaching methods. At this stage, teachers lack motivation, work-related fatigue and limited professional activity (Maskit, 2011). This attitude would not let them effect change in their pedagogical skills. These findings are consistent with the present study findings that experienced teachers were teaching through traditional methods and they complained about non availability of resources. It was observed that these teachers were not motivated to change their teaching style. They said that the government arranged training for them but they did not practice in their teaching. It seems that these teachers are also experiencing career frustration and career wind-down stages.

The present study however confirmed that new teachers in trust and un-registered private schools were not much different in their attitude towards teaching than were experienced teachers. Maskit (2011) also discovered that novice teachers feel difficulties at the early stage of their career. The author explained that due to lack of experience these teachers found implementation of teaching method challenging. These forces become a hurdle in the change and implementation of new teaching methods. It can be assumed that teachers in trust and un-registered private school might be facing the same hurdles.

However, another finding contradicts the finding of Maskit (2011). The author identified that novice teachers faced a conflict between a desire to excel in the profession and family priorities. For the present study, this case was observed with experienced public sector teachers, who mentioned that they have family and they cannot give much time to do their work at school.

The participant teachers mentioned that they do not use instructional material because it was not provided by the school and secondly, they cannot give extra time to learn the use of material. A previous survey of primary schools (UNESCO, 1997) has made reference to these results that teachers are less motivated and do not want to devote their extra time to learn new teaching aids. This survey also confirmed that in addition to financial problems, the tradition of rote learning and teacher accountability for the loss of material is the big hurdle in the use of learning material. In the present study, a school librarian also pointed out that she is accountable for the loss and damage of library material.

The annual status of education report (2014) reported that the percentage of untrained teachers was greater in the private sector than public sector and mostly of those teaching at lower levels of education. This report also revealed that teachers are working in the private sector with even lower salaries due to relaxed hiring criteria (Annual status of education, 2014). The demographics of teachers in the private sector (Trust and un-registered schools) of this study are similar as described in the report. These teachers had only attended secondary school and some of them were part-time secondary school students. These teachers did not mention any professional training they had or intended to do in future. Another study (Pal, 2010) conducted

in India (Pakistan's neighbour country) showed the similar findings that private school teachers are younger than public school teachers and lack professional training.

In the public sector, the government arranged regular professional training for teachers. In service training, trained teachers in many areas; for example group work, observation, storytelling, dealing with objects (Quality of Primary Education, 2003). It is evidenced by public sector teachers in the present study that the government arranged refresher courses and workshops for their training.

#### **9.8.6 Teaching Methods and Classroom Learning**

Previous studies (UNESCO 1997; Das, Pandey & Zajonc, 2006) recognized, in common with the present study, that primary school teachers used traditional teaching methods. A survey of rural primary schools (UNESCO, 1997) reported that lecture method was common among the teachers. Khan (1970) also claimed that classroom lessons incline students towards passive learning. These findings support the results of the present study.

The present study's teacher participants' preferred lecture method and believed that it was a suitable method to teach primary school children. Reflecting on findings in the literature, Thomas (2013) argued that professionally qualified and professionally un-qualified teachers (from various cities of Pakistan) believe that the lecture method encourages student participation. Thomas (2013) also identified that professionally qualified teachers thought that a discussion method creates disciplinary problems within the classroom (which differed from the opinion of professionally unqualified teachers). The study found no differences between the beliefs of both groups of teachers. Otherwise, the results of the present study are not dissimilar to the findings of Thomas' study.

The IL comprehensive framework document (Siu-Cheung, James, Fong-Lok, & Siu-Cheung, 2005) for Hong Kong students argued that at primary education level students need more teachers' help and guidance than students of higher levels. It was considered significant to compare the guidance level (Table 9.2) required at primary level (suggested by the framework) and the findings of the present study. There is only little guidance provided from the participant primary school teachers to understand information process stages. These teachers helped students in understanding the textbooks through translations, to organize the story in parts and helped students in practicing creative writing. The participant teachers also helped students in sharing information in groups and displayed their work. This comparison (Table 9.2) identified major gaps in teachers' guidance in the understanding of the information process at primary educational level.

Table 9.2: Comparison of IL framework teachers' guidance at primary level in understanding information process and present study findings (p.61)

Information Process Stage	Primary (Teacher directed)	Present study findings
Initiating a task	Teacher helps students develop and organize questions to guide research	Brainstorming about the topic
Gathering information	Teacher helps students find a variety of appropriate and accessible sources of information	
Exploring information	Teacher helps students to distinguish between fact and opinion	Teachers help students in understanding textbook from English language to national (Urdu) language
Organizing information	Teacher provides a format to record simple bibliographic information	Teachers ask student to think and organize story in parts
Creating new information	Teacher helps students combine information to answer research questions	Teachers practice Creative writing
Sharing & presenting information	Students present information to a partner or small group within the class	Teacher displays children work within or outside classrooms, encourages group discussion
Assessing & evaluating information	Teacher and students reflect on the complete research process, noting areas of strength for improvement	

### 9.8.7 Situation of school libraries

The present study recognized that not all public and private schools in Pakistan have school libraries. Out of six selected school cases, two schools had libraries and one school had a books storeroom and called it a library. Previous research and literature (Lynd, 2007; World data on education, 2007; Khan, 2013) has made reference to this and confirmed the missing facilities in primary schools, specifically non-availability of libraries and librarians in public schools.

However, one public school had library and professional librarian who had a distance learning bachelors in library and information science. However, the librarian was teaching more than library related work and was not providing library services regularly. This supports the view of Anwar (1971) that children did not acquire reading habits at school; Anwar went on to conclude from this that most of the children become illiterate after few years after they left school. This discussion implies that the availability and regular training of existing school librarians are both important in the present situation. Being a faculty member at Department

of Information Management, University of the Punjab, Lahore (research site), the researcher knew that our graduates considered jobs in school libraries as a very low profile job. They wanted to join universities, public libraries, hospitals and other institutes after their graduation. Therefore, the less trained and diploma or bachelors' degree holders are available for school jobs. As far as elite class private schools are considered, they offer good salaries but they demand a LIS graduate with English language proficiency. This job market is occupied by graduates in English language or those who are good at speaking English. In the present study, the elite class private school (case six) library teacher was a lawyer by profession but hired as she was proficient in English speaking.

It was observed, and also come up from the children's transcripts, that they were given old story books to read and share. However, the librarian (case 3) talked about library's rich and reference collection but grade 1 and 2 children did not mention use any other source. This situation supports the literature's (Anwar, 1971; Khawaja, 1988; Haider, 2008) findings that the basic problem of school libraries is non-availability of children's literature.

#### **9.8.8 Participant children's general and information behaviour**

It is important to see the participant children's general and information behaviour in line with previous studies to highlight common findings. It was observed during children's focus groups that they were very quiet and less responsive. When children did not know how to answer, they started copying each other responses. They were also afraid to be wrong during focus groups and while performing activity based tasks. Similarly, the literature (Javed, Kundi & Khan, 1992; Syed, Hussein, Haidry, 2009) indicates common findings about emotional and behavioural problems of school children in Pakistan. These studies asked teachers and parents belonging to low socio-economic areas through a survey questionnaire to indicate children's behavioural problem. The data was collected from both private and public sectors. The high scores were indicated in children's antisocial and neurotic or emotional (for example worries, miserable, fearful) behaviour. These findings support present study's above stated results.

Herring (2010) also identified that environment, cognition and socio-cultural perspectives have a great impact on the culture of transfer (information seeking experience could influence on the individual's performance who encountered information later) in schools. He conducted his research in three rural Australian state schools and found that teachers' also thought that not all students will reflect on what they have learnt. In the present study, the participant teachers' also mentioned that environment (low economic area), children mental abilities (cognition) and socio-cultural (uneducated parents) perspectives are the basic reasons of not practising IL skills in schools. Therefore, Herring's PLUS model approach was considered significant to analyse IL connections in Pakistani public primary schools' curriculum (chapter 4). Overall Herring and Irving's works were very significant in achieving present study's objectives. Irving's work was influential in designing IL activity tasks for the participant children, however the results cannot be compared as she did not report results

from her study. Her work highlighted the IL practice in primary schools in Scotland and IL integration into the curriculum of excellence.

One of the reasons for children's behaviour could be domestic issues or fights between parents. Teachers and the librarian from public sector schools mentioned that school children are disturbed due to their domestic issues and cannot concentrate on their studies. One teacher mentioned that if children have problems at home, they look quiet and sad. Shamama-tus-sabah, Gilani and Wachs (2011) conducted a study in major cities of Pakistan in primary schools and found that home chaos is associated with increased cognitive and behavioural problems among children.

The children also talked about their fantasy worlds, for example one child told the researcher about a forest near his house and while climbing up a ladder, he can see animals. Some others talked about the library as a playing and reading area in their school and they visited that library regularly. However, the researcher discovered that there was no library in that school. It is considered to be an interesting finding which is common in Piaget's theory of cognitive development (Cook & Cook 2005). Piaget discovered four stages of cognitive development: sensorimotor, preoperational, concrete operational and formal operational. The children investigated in the present study (5-7 years) fall in the preoperational and concrete operational stages. According to Piaget, the child at this stage cannot see the logical side of the scene and they engage in artificialism. In artificialism children believe that natural objects (for example sun, moon, clouds etc.) are controlled by people or individuals. This theory maybe applicable to this study's participant children's behaviour, when one child was talked about his control of forest animals (artificialism) near his house. Also some children talked about the library as a place where they could freely play, watch cartoons and read story books. However, in the present situation disciplinary environment around them, their economic and domestic issues can be reasons for fantasy talks.

The present study's results revealed that mostly children from public and private trust schools ranked their older siblings and books used by them high among other information sources (and other low ranked sources were parents, observation, environment, library tuition teacher and internet). This tendency was also noted down by various studies (Madden, Ford & Miller, 2007; Shenton & Dixton, 2003). Madden, Ford & Miller (2007) examined information seeking habits of English secondary school children. They approached the children in two ways, firstly they asked children from each academic year to discuss and rank a set of information sources and secondly, they asked the students to report the sources they used most to complete their home works. Children mentioned people based and arte-fact based information sources. The mostly used information sources by y7 to y9 were their relatives (people based). However, the higher grade children mostly used their books and teachers. The authors argued that the possible reason of this trend is that homework assignments at years 7-9 are familiar to parents or older relatives and they do not need expert knowledge, therefore they are helpful.

In contrast to public and private trust and private un-registered schools, it was observed that elite class private schools' children's most desired information sources were internet (Google), books and environment. Only one child mentioned her mother as information source. These children ranked digital information sources first, rather than people (for example parents, older brother/sisters), unlike the findings summarised above. This situation highlighted another aspect: that those children who had easy home internet access, graded online information high. These findings echoed those reported by Mokhtar et. al. (2013) in a pilot study of a national information literacy survey of primary and secondary school students in Singapore. They found that grade 3 and grade 5 are not very familiar with the different types of print information sources. These children mentioned that they would access online information sources, when they asked about selecting information source. This suggests that due to lack of IL instruction, children preferred easily accessible information sources without evaluating.

### **9.8.9 Information literacy skills**

During task based activities followed by focus groups, participant children were asked to draw lion, his house and food (See chapter 7). Only a few children from public schools and the majority from elite class private school were able to follow the instructions and drew as per requirements. Herring (2010) also found that a few children in each focus group lacked understanding about question formulation process (were not able to follow the instructions). In his research, he asked the value of question formulation as an important IL skill from year 7 school students.

Some participant children drew their self-image, animals, storytelling and houses instead of presenting given information. These children did not follow the researcher's instructions and activity requirements. These results have much in common with previous studies (Hall,2008; Coates and Coates,2006), where the authors examined children's drawings. Hall, like the present study's findings, discovered a range of topics communicated through children's drawings: self and identity, story-telling, animals, pattern, decoration and special interests. Coates and Coates (2006) proved that children's early drawings include human and animal images, buildings and transportation. The association between the present study and Hall's study is strongly supported, when Hall described that a girl participant in his study drew herself as a queen. A girl participant from the present study drew a queen wearing a crown and jewellery (See chapter 7, figure 7.9) during the using information activity. Thompson (1999) makes the point that children who drew self-images are less consistent in their choice of topic selection for drawings. He also argued that girls' interests remain in their primary territory (for example self-experiences, home, school, friendship and affiliation), most likely the results of the present study.

Hall (2008) also recognized that children drew story characters. This finding is clearly in line with the present study's finding of a child from case two. He tried to draw a lion but with a story character (mouse) (see

chapter 7, figure 7.12), however he was not instructed to do this during task based activity. These results suggest that children had common features to draw in their drawings (for example, self-image, storytelling). Some participant children drew lion's house as bars. This finding makes it apparent that children also showed restricted access through their drawings (see Figure 7.11, Chapter 7). Although it was mentioned in the given information text that lion lives in grasslands, these children showed that lions are kept behind the bars and are not directly accessible. It came up in focus groups and teachers' interviews that children had restricted access at their homes and schools to print (only mentioned in one case) and computer or internet. Thompson (1999) argued that children's drawing topics are influenced by gender, culture and circumstances. These findings may have cultural and personal circumstances impacts. It could also be argued that children living in urban areas usually observed lions in zoos behind bars, therefore they drew the bars as the lion's house. It was also observed that students could not perform in those tasks based activities, where they have to think and then write on a sheet. For example, they performed the activity of understanding main ideas of information and they were not able to think about the story read to them. These findings echoed those reported by ministry of education, Pakistan that in different provinces public schools' students perform better in rote learning subjects but poorly in subjects involving comprehension, problem solving and life skills (Quality of primary education, 2003).

## **9.9 Situational Analysis**

This methodological approach was introduced by Adele E. Clarke in the domain of the history of medicine and life sciences (Clarke, 2005). Due to its flexible nature, this form of inquiry can be applied to multiple domains including library and information studies research (Vasconcelos et. al., 2012). "Situational Analysis seeks to identify differences, variations, conditionality, and complexity. It can be used in a wide range of research projects using different data gathering approaches" (Sen, 2013, p.95).

Situational analysis was identified as a meaningful way to bring together the broader contextual data which was presented in chapter 4 and the findings from the case studies, through situational mapping. To further stimulate thinking for the development of a model and to see the relationships between the different elements of the collected data (themes), it was decided to apply situational analysis to explore the research questions in a wider context. Situational analysis was found to be a particularly appropriate method as it could be used with the coded data and is flexible (Clarke, 2005). The analytical framework of the present study took a blended approach, firstly thematic analysis (see chapters 5-7) and then doing situational analysis to see the important elements of the situation and their relationship.

The process of thematic analysis and situational analysis is described in detail in chapter 3 (Methodology). The themes are discussed in detail in chapters 5-7. After doing thematic analysis and cross case analysis, the researcher found that data could be further explored based on the relationship among different elements. The findings of situational maps are discussed in this section.

Situational analysis is a methodological approach to critically analyse what is going on in the situation. These maps (mind maps) also help to answer the following questions:

“Who and what are in the situation? Who and what matters in the situation? What elements make a difference in the situation?” (Clarke, 2005, p.86). For the present study, the situation to be analysed is the information literacy practice situation in selected primary schools of Lahore, (city) Pakistan. Clarke described three techniques for mapping the complexities of the situation:

- Situational maps as strategies for articulating the elements in the situation and examining relations among them
- Social worlds/arenas maps as cartographies of collective commitments, relations, and sites of action
- Positional maps as simplification strategies for plotting positions articulated and not articulated in discourses

### 9.9.1 Situational Maps

According to Clarke (2005) “the situational map should include all the analytically pertinent human and non-human, material and symbolic/discursive elements of a particular situation” (p.87) as identified by participant or by the researcher. These maps include an initial very messy and a final ordered map showing spatial, temporal, technological, work, sentimental etc. categories (Clarke, 2005). This mapping need not include all categories in the given situation, however highlights the most important and influential elements.

To represent the situation of information literacy in the selected schools of Lahore (city), Pakistan, an initial messy map was developed (Figure 9.9). This map indicates human actors (for example librarians, school children, teachers), non-human actors/actants (for example school library place, learning environment, teaching methods) and major issues. This messy mapping shows the holistic picture and complexity of the situation (Figure 9.9). The map was designed by answering these questions: Who and what are in the situation? Who and what matters in the situation? What elements make a difference in the situation? What are concepts, ideologies, cultural issues and sites of debates? In answering these questions, the researcher drew maps based on codes already generated through thematic analysis. The identified elements were then discussed during negotiations with supervisors and passed through the process of deletion and addition.

At the next stage, relational analysis was conducted which resulted into the second messy relational map (Figure 9.10). This map depicts the relationships by circling the main elements and drawing lines towards other related elements. This was done by positioning, changing and repositioning the elements given in the situation. An iterative approach was adopted here to go back to the findings and position the elements.

The main elements identified through initial messy and relational mapping were then ordered in a tabular form (Table 9.3). Clarke (2005) provided headings to develop the analytical table for the understanding of the

situation. She identified headings which encompass fundamental elements in the participants' world, for example time and space. Clarke (2005) noted that these headings were not fixed, and the researcher could develop his or her own, based on the research context. However, it was discovered that the identified elements by Clark were applicable to many contexts and they provided a meaningful basis for analysis. The messy map elements and other identified elements were fitted to the table under the headings provided by Clarke. The elements under each heading were discussed with supervisors and repositioned. Some categories were deleted and some emerged based on negotiations (Table 9.3). This analytical exercise highlighted important factors which lead towards model development.



Figure 9.9: Messy situational map

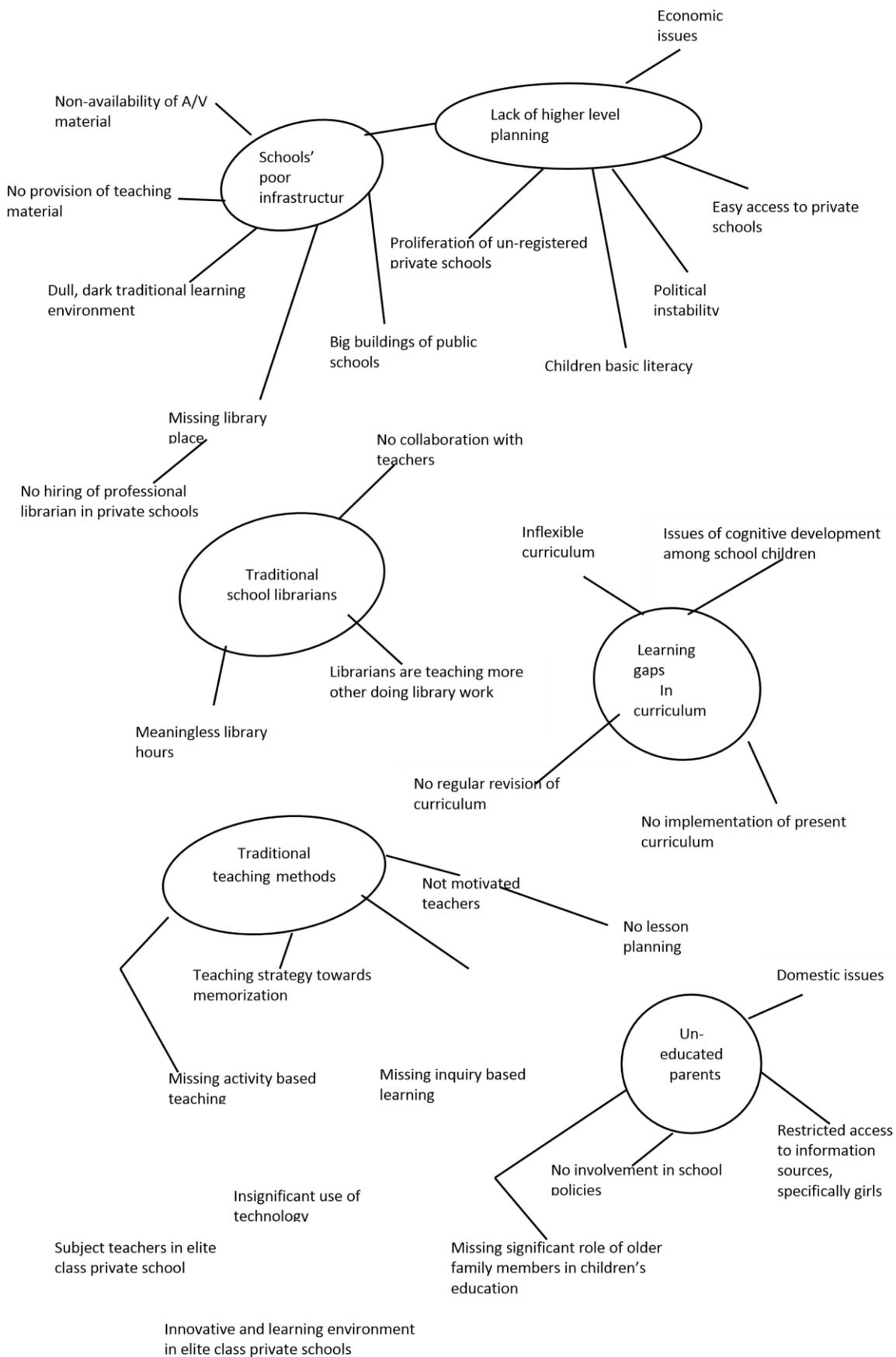


Figure 9.9: Messy relational situational map

The Table 9.3 identified key human individual and collective elements in the present state of inquiry, for example policy makers, children, school owners, teachers, family members and librarians. The identified non-human elements/actants are political planning, un-realistic education policies (curriculum), awareness of information literacy, schools' learning environment, library and homes. This mapping also identified collective human actors (e.g. particular groups; specific organizations) as policy makers, private school owners, head teachers, teachers, older family members (brothers/sisters, aunt) and school librarians. In the category of discursive constructions of individual and /or collective human actors, the identified elements are teachers' role and attitude, librarians' role and attitude, children's information behaviour, attitude and skills, older family members' role and attitude and role of tuition teacher. The political/economic elements in the present situation are political instability in the country and economic issues. The ordered mapping also enabled the researcher to find out silent actors in the study (role of father, public libraries, library schools, professional library organizations). The discursive construction of non-human actants in the given situation are many; for example learning environment, meaningless library hours, forced learning in schools and homes, learning gaps in curriculum etc. (Table 9.3). The ordered mapping identified sociocultural elements in the given situation; for example mothers as helpful in studies, disciplinary culture in schools and homes and the restricted access that participant children had to information sources.

The temporal elements box in Table 9.3 shows the historical, seasonal, crisis in the given situation (for example development of teaching methods and historical development of IL). Important spaces or geographic locations (Spatial elements) in the given situation are school, library, home, tuition centre, Quran reading place, mosques, internet space, geographic area, fantasy world and relatives homes. The ordered mapping also identified major issues in the present situation as un-educated parents, children lacking basic literacy, rote learning, poor planning, no quality control on education etc.

This type of mapping is very useful to study the situation thoroughly. The temporal elements are time related and may be influential in any situation of inquiry. In the present study, the slow historical progress of teaching methods and information literacy process are significant factors.

Clarke (2005) also provided the heading of spatial elements (building, design, layout, place) to highlight important places. For the present study, library, home, tuition centres, mosques, internet, geographic area where the school located, children's fantasy world and relatives' homes are identified as important special elements.

Table 9.3: Ordered Situational Map

<p><b>Individual Human Elements/Actors</b></p> <p>Policy maker School owner Teacher Librarian Child Family-mother, elder brother/sister</p>	<p><b>Non-Human Elements/Actants</b></p> <p>Political planning and un-realistic education policies (curriculum) Schools' learning environment Library Homes Information literacy</p>
<p><b>Collective Human Elements/Actors</b></p> <p>Policy makers Private School Owners Head Teachers Teachers Older family members School librarians</p>	<p><b>Discursive Constructions of Individual and/ or Collective Human Actors</b></p> <p>Teachers' role and attitude Librarians' role and attitude Children's information behaviour, attitude and skills Older family members' role and attitude Role of tuition teacher</p>
<p><b>Key events in the situation</b></p> <p>There was nothing identified in this category.</p>	<p><b>Implicated/Silent/Actors/Actants</b></p> <p>Role of father Role of public Libraries Role of library schools Role of professional library organizations</p>
<p><b>Political Economic Elements</b></p> <p>Political instability Economic issues</p>	<p><b>Discursive Constructions of Non-Human Actants</b></p> <p>Traditional, unexciting learning environment Meaningless library hours Forced learning at schools and homes Use of text books as curriculum Learning gaps in curriculum No information literacy awareness Limited exposure to information sources Poor IL skills Poor schools' infrastructure (non availability of libraries, computer labs, teaching material etc.)</p>

<p><b>Temporal Elements</b></p> <p>Development of teaching methods</p> <p>Historical development of IL</p>	<p><b>Socio-cultural/Symbolic Elements</b></p> <p>Mother as helpful in studies</p> <p>Restricted access to information sources</p> <p>Disciplinary culture</p>
	<p>Girls are not given priority</p> <p>Domestic issues</p> <p>City public school buildings</p> <p>Younger children are not suitable to use computer, internet</p>
<p><b>Major Issues</b></p> <p>Illiterate Parents</p> <p>Children basic literacy</p> <p>Rote learning</p> <p>Proliferation of un-registered private schools</p> <p>No quality control on education</p> <p>Lack of planning at government level</p> <p>Least priority to the development of libraries, media centres, community centres, public libraries</p>	<p><b>Related Discourses (Historical Narrative, and/or Visual)</b></p> <p>There was nothing identified in this category.</p>
<p><b>Other kinds of Elements</b></p> <p>There was nothing identified in this category.</p>	<p><b>Spatial Elements</b></p> <p>School as place</p> <p>Library as place</p> <p>Home as place</p> <p>Tuition as place</p> <p>Quran reading place</p> <p>Mosque</p> <p>Internet space</p> <p>Geographic area</p> <p>Fantasy world</p> <p>Relatives' homes</p>

### 9.9.2 Social worlds/arenas Map

The social arenas provide a framework to study different aspects of the situation and create a map that shows social and organizational relationships within the situation (Vasconcelos et. al., 2012). This approach

attempts to represent best interpretation of the data. The social world mapping enables the researcher to best conceptualize and represent collective actors of your study (Clarke, 2005, p.116). For example, an arena of a hospital includes the physicians' world, nursing world, hospital management world, other hospital staff's world etc. In these worlds of the hospital arena, there are sub worlds/arenas which show different discourses. Doing the map exercise is in itself an analytic exercise (Clarke, 2005, p.115). This type of mapping brings different groups (human, nonhuman) together on a specific issue or topic.

To further explore the findings another analytic exercise resulted in the social arenas mapping (Figure 9.11). The present study will mainly focus on two maps (situational maps and social arenas maps) which will lead the analytic exercise towards an information literacy implementation model. Clarke (2005) makes the point that a researcher does not have to use all the mapping techniques, he/she can explore based on the nature of their data. This mapping enables the researcher to see the present situation in a wider context and simultaneously the sub arenas show important factors which are influential in an arena.

The information literacy situation (Figure 9.11) is directly and indirectly connected with learning, professional attitude, socio-cultural, home and political arenas. This mapping does not show all the factors in an arena but includes the most influential factors of a social world. These arenas have dotted porous boundaries. The **learning arena** consists of sub arenas: schools, tuition centres and religious learning, these are the learning worlds of the participant children. The issues related to higher level planning for information literacy emerged as a **political arena**. This arena shows nonhuman actors influencing the implementation and practice of information literacy (for example economic divide, different types of private schools, quality issues and missing facilities in schools).

Another important arena/social world is the **professional attitude arena**. This arena depicts the professional attitude of school teachers and librarians. The professional attitude of the main actors (school teachers and librarians) is a big hurdle in the practice of information literacy. The **home arena** is also significant. It illustrates that elder brother/sisters are the main actants in school children's studies. The parents and relatives are also helpful, however children had restricted access to information sources (internet, newspaper).

**The socio-cultural arena** significantly indicates the socio-cultural issues in the present situation of inquiry. These issues (disciplinary culture, children are underestimated, gender discrimination) prevalent in schools and homes have serious impact on the present state of inquiry. In the mapping, red dotted boundary line of socio-cultural arena overlaps with learning and home arenas (Figure 9.11).

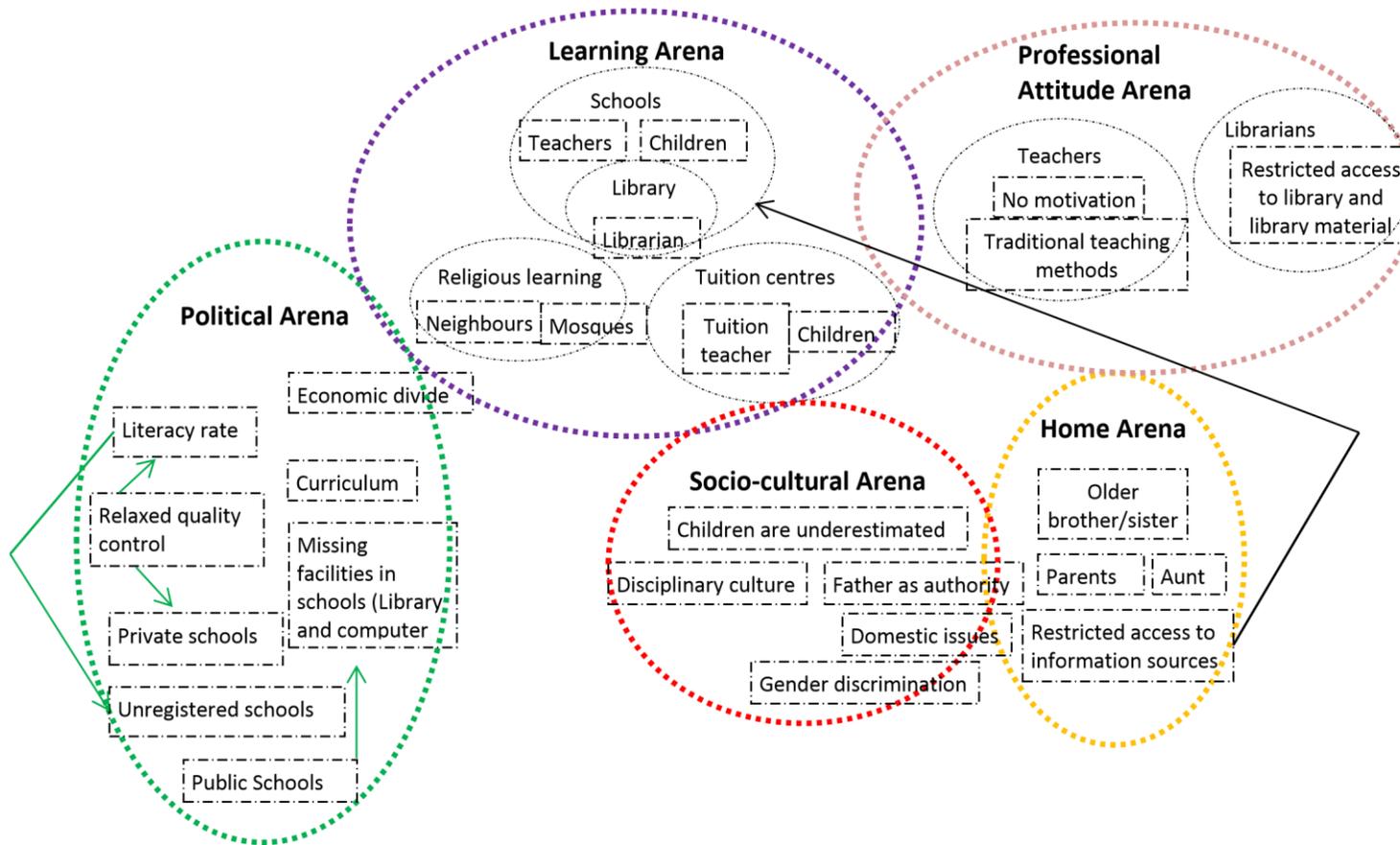


Figure 9.10: Social arenas: information literacy situation in primary schools

The analysis presents the whole of the situation and shows that in Pakistan IL practice in primary schools is influenced by political, economic and socio-cultural issues, children's learning places (homes, schools) and attitudes of teachers and librarians. This important exercise highlighted different key elements of the situation which show that IL practice implementation is a complex process. This study contributed by identifying and gathering multiple aspects of the situation relevant to IL practice in primary schools in Pakistan. No previous study gathered these important elements at one place to see the holistic view of the situation.

This analytical exercise provided an overview of the IL situation and will be helpful for future researchers who aim to look into these identified arenas in depth. These individual arenas can be further explored by stimulating future researcher's thinking to see relationships and key issues. This analysis found that IL practice can be possible in primary schools in Pakistan by working out and changing political, economic, socio-cultural, home, school conditions and practices and attitudes of teachers and librarians.

This mapping exercise was also very helpful in model development (see next section 9.10). The identified key stakeholders, issues and relationships among different categories, stimulated the researcher's thinking to illustrate significant elements into an information literacy implementation model.

## 9.10 Proposed Information Literacy Implementation Model

The thematic analysis and analytic mapping exercises led the researcher towards the development of a proposed information literacy implementation model for primary schools in Pakistan. The situational mapping discussed in section 9.9.1, identified key stakeholders, important departments/organizations, and significant processes for information literacy practice (Figure 9.12). Many authors (Eisenhardt, 1989; De Vaus, 2001; Dooley, 2002; Yin, 2003; Nazari, 2010) supported the idea of building theory (explanatory model or framework of ideas) from case studies based on findings. Yin (2003) explained that the theory is not expected to be a grand theory in social science, the goal is to “have a sufficient blueprint for your study” (p. 29). This proposed model is an illustrative and logical (step by step) attempt to present the important elements of an information literacy implementation process in the primary schools of Pakistan. The aim of this proposed model presentation is to gather significant aspects of the situation in a logical manner. To generate new theories or ideas rigorously one has to go through multiple aspects of the situation within context. Therefore, this research based proposed model can be used as a stimulus and as a guide for future researchers who may be interested to look into the situation regarding IL practice in primary schools. The logical relationships of important elements presented in this proposed model might support holistic understanding of the IL implementation process.

This model only shows those elements which are identified through the case study data; the other influential wider factors (for example political, cultural, social) identified in situational mapping were beyond the scope of the implementation model. It was attempted to present a more realistic model of IL implementation. The proposed model (Figure 9.12) depicts four stages of the implementation of information literacy in primary schools of Lahore, Pakistan. The four stages (planning, executing, training and implementing) are discussed in detail below:

### 9.10.1 Planning Stage

The key stakeholders of this stage are policymakers and private school owners. In case of public schools, policymakers have to plan and private school owners will plan in line with government policymakers, after school registration process.

It is suggested that to improve the situation of public schools, private elite class schools should offer their services (for example resources, teachers) to nearby public schools. This is in line with existing government policy, which stipulates that elite class private schools are charging high school fees, so these schools should commit to improve the learning environment of at least one or two nearby public schools as per government policy.

The data suggested that the hiring of young qualified teachers and professional librarians should be compulsory at primary school level. The young teachers hired by private schools are not qualified and experienced, on the other hand public school teachers are qualified, experienced but not motivated to improve teaching quality. The situation of the professional librarian is not satisfactory in these schools. Present study findings show that only one public school had a professionally qualified librarian. Therefore, the implication is that policymakers and private school owners should hire young qualified teachers and professional librarians. The more motivated young qualified teachers might be able to actively run the IL instruction program with the collaboration of a professional school librarian. These efforts in return might help in creating motivated learning environment in the schools.

The researcher observed that the public primary, NGO and private un-registered schools' environment was dull and traditional in contrast to elite class private primary school. The teachers might be motivated if public sector policymakers and private school owners planned to change the old, dull and traditional academic culture in schools. Therefore, one of the implications is that schools' environment should be bright, colourful and resourceful, so that it can impact positively on teachers' teaching and students' learning.

The data shows that only two participant schools had proper school libraries, therefore, a key step towards the implementation of IL instruction is to provide library places in all schools. The library might be equipped with the latest children's literature and audio/video materials, so that a reading culture can be fostered among school children. Also the professional school librarian can start an IL instruction program for children and teachers to maximize the use of the library.

Above all, the planning of an integrated curriculum is the key of any IL instruction program. The policymakers and private school owners might plan and advise the curriculum wing, Ministry of Education, Pakistan to prepare an IL integrated curriculum draft with the help of teachers, librarians and educated parents. Presently, in practice school curriculum (2006), and the teacher guides which have been prepared to support teachers, there are provisions (discussed in chapter 4) to practice IL instruction within classrooms. However, the curriculum needs to be revised regularly to incorporate the latest concepts and technologies as the 2006 edition was in practice in selected primary schools.

# Information Literacy Implementation Model

Model key: Stage Stakeholder Process

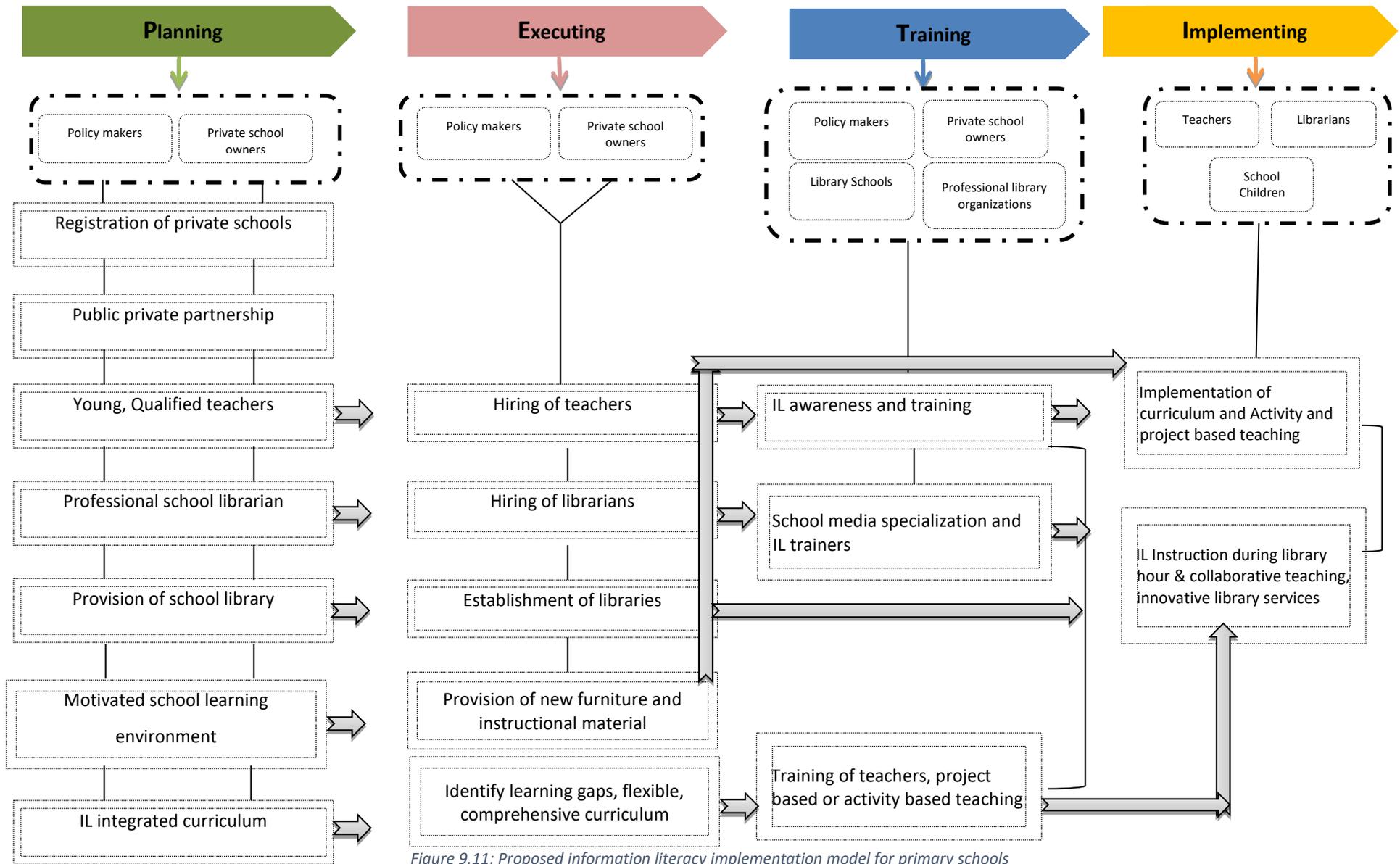


Figure 9.11: Proposed information literacy implementation model for primary schools

### 9.10.2 Execution Stage

This section discusses the possible ways to bring out the processes discussed in the previous section. The key stakeholders at this stage are policymakers and private school owners.

Looking firstly at hiring young qualified and professional school librarians in all primary schools, some possible enablers are proposed, based on case study findings and the Pakistani education context. Firstly, the elite class private school teachers can be attracted towards public schools by offering handsome salaries and by providing a motivating learning environment. Those public school teachers, who do not want to improve their teaching quality, might be offered a golden retirement package by the government, as data shows that these teachers give priority to their personal issues and families rather than their teaching profession.

The school librarian posts with reasonable salaries could be advertised with professional university qualification or by contacting library schools of Pakistan. In Lahore, the Department of Information Management, University of the Punjab (employer of the researcher) has offered a specialization in school media librarianship since 2014. The students who have qualified with a school media librarianship specialization could be suitable candidates for these jobs.

A central big room in all primary schools could be dedicated to a school library. The school librarian can build up-to-date collections with a limited school library budget and by asking for donations of books and furniture from different working NGOs and government departments (for example the National Book Foundation). To overcome the problems of a limited library collection, the school librarian could utilize inter-library loan facilities of nearby public libraries and private school libraries. To provide a motivating, bright and colourful learning environment in schools, policymakers and school owners can provide new colourful furniture in all primary schools. The teachers might be provided with the required instructional material to support their teaching.

If further research confirmed the findings of the present study then the most significant step at this stage would be the preparation of a meaningful, flexible, comprehensive and integrated curriculum at primary level to diminish the practice of using textbooks only (as findings show that school teachers were using text books and did not know how to implement the curriculum) . The teachers who participated in the present study also complained about learning gaps in the present curriculum.

### 9.10.3 Training Stage

It is proposed at the third stage to offer pre and in service training to teachers and librarians as the data shows that these participants lack training. The stakeholders of this stage are policymakers, school owners, teachers and librarians. The policymakers and school owners could offer pre and in-service training to teachers in terms of IL awareness and instruction. The training could be arranged by the Directorate of staff development departments (Public teachers' training institutes) in

collaboration with library schools and professional library organizations. The faculty members of library schools whose have expertise in this regard could be hired for this purpose. The researcher's own library school has delivered training for private school librarians (TCS Librarians' training, 2016). This training could become the part of their regular professional training.

The teachers' professional training could include task based or project based teaching. This type of teaching can help in the cognitive development of school children. It may also enhance the use of library and its resources. In addition, if a school has its own professional librarian, he/she may be responsible for the IL awareness and training of the school community.

The library schools and professional organizations could also offer regular school media librarianship training for school librarians and public librarians. This training can prepare the librarians as IL instructors or teachers.

#### **9.10.4 Implementation Stage**

The final stage of the proposed model (Figure 9.12) is implementation stage. The beneficiary stakeholders are school children, however, librarians and teachers are benefactor stakeholders. The steps at this stage focus on IL practice in primary schools. These steps demonstrate how school children can become IL literate and how library hours can be meaningful. With the implementation of an integrated curriculum, teachers may start teaching through innovative methods (task based or project based). The librarians could work in collaboration with teachers to develop and practice IL instruction through teaching.

The school librarians could also play their role of IL instructor during library hours. The librarians can foster reading culture through innovative library services and resources. He/she can develop links with the nearest school librarians and public librarians. These links can lead to resource sharing and inter library loan services within institutions.

### **9.11 Information literacy process based framework for primary school children**

Figure 9.13 proposes the IL process based iterative approach for primary school children in Pakistan. The elements of framework were identified from the findings of focus groups and task based activities conducted with the participant children of the present study. The findings cannot be generalized to all types of schools in Pakistan, but the elements which were discovered through case study analysis could help in developing cognitive, analytical, social and information skills in primary school children. If further research demonstrates that this is a robust process applicable outside the current cases,

then the identified elements (Figure 9.14) could be integrated into curriculum framework and teacher guides at primary level of education.

The present study results show that participant children lack basic literacy skills for example reading, writing, listening and speaking. To make children information literate, this study advises development of basic literacy skills (Figure 9.13) in connection with information literacy skills. The data (chapter 4) about school children also verified the problems of basic literacy skills at primary level education.

The framework shows an iterative approach: the learners can get back to any step and reflect on their overall learning. This also makes point that IL is not linear but an iterative process. Herring's (2006) definition of information literacy also declared it as iterative approach. The present study also takes Herring's approach to define the IL process.

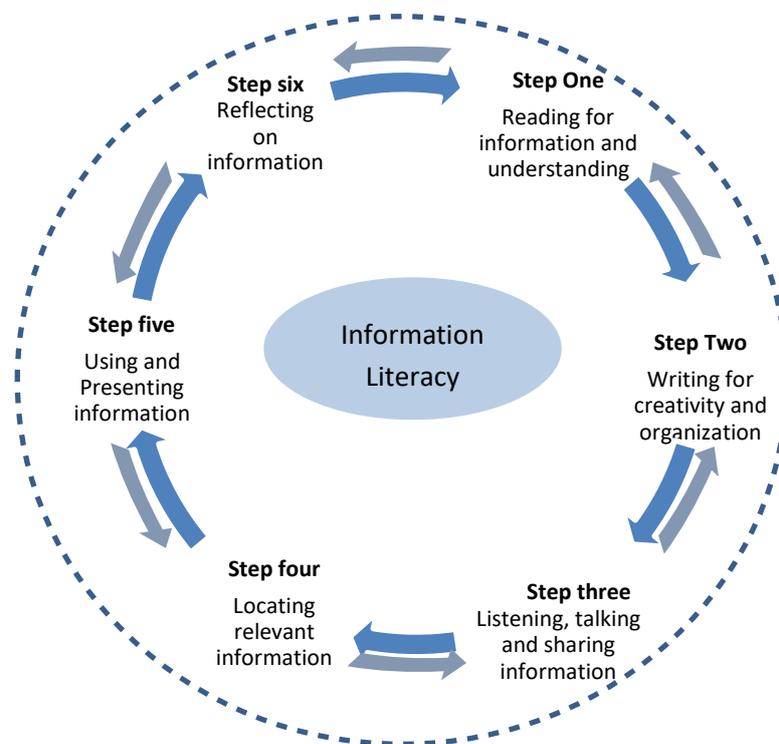


Figure 9.12: Information literacy process based framework for primary school children

### 9.11.1 Reading for information and understanding

The first step in this iterative process is that children should read to get information from what is read and understand the structure of the information which has been read. The reading should be for interest and understanding. The teachers and family members can play key roles in developing reading skills. It was found that participant children had low reading habits; they read to memorize text, not to understand it.

### **9.11.2 Writing for creativity and organization**

At this step, children should learn to write to create new knowledge and to organize it in different formats. This study's findings show that participant children were able to write few words which they memorize in a task based activity. Only a few children were able to recall what they read, and they were also unaware how to organize information (for example a story into three parts: first, then and afterwards). Therefore, based on findings, it is suggested that children should learn in schools, how to write creatively, and significantly, the organization of information in different parts.

### **9.11.3 Listening, talking and sharing information**

The task based activities' findings revealed that children lack social skills. They were not able to listen to the researcher's instructions carefully, they were quiet and were copying each other's responses and writings, instead of confidently sharing information with each other. These findings proposed that children should be trained to listen carefully, talk and share information confidently.

The teachers in collaboration with school librarians should develop classroom activities to build these skills among children.

### **9.11.4 Locating relevant information**

After inculcating reading, writing, listening, talking and sharing information skills, this fourth step requires training children in locating relevant information. The children should get exposure to a variety of information sources through school and public libraries. The teachers should give information finding assignments in collaboration with school librarians so that children can be trained in locating relevant information.

### **9.11.5 Using and presenting information**

The present findings revealed that participant children lack skills in using and presenting information. The fifth step (Figure 9.13) using and presenting information requires that children should train in these skills. They should learn through integrated curriculum and classroom activities how information can be properly used and presented.

### **9.11.6 Reflecting on information**

At this step, the children should learn to reflect back on what they learned, for future learning. This step will develop critical and analytical thinking among children. It is important to train children by asking and writing their reflection on what they have learnt. After this step, the children will prepare again for further readings and so on.

The framework highlights the main areas which should be given attention before IL planning at primary school level. This framework based on the selected findings can be a stimulator for

researchers who want to develop IL contents for developing countries' schools. They can use this as an initial point in their research and collect the contextual data to add, change or modify this. The educators can also benefit from giving attention to these areas before designing curriculum or making policies for primary schools. Previous studies followed international IL models/frameworks for practice, theory and assessment. However, present findings show that IL frameworks are contextual and need based. Straight forward adoption of a model from a different context cannot be very useful as IL is a contextual process.

### **9.12 Concluding Remarks**

This chapter presents significant cross case analysis based on thematic analysis of all selected six cases of schools. The results revealed connections between the findings of public and private trust and private un-registered schools in Lahore city of Pakistan. For more structured and organized findings and to further reveal the data, situational analysis mapping was also presented in this chapter. In addition, the proposed model of implementation of information literacy and proposed information literacy process based framework was presented and discussed.

The proposed process can be used as a curriculum framework at primary education level.

## **Chapter 10 : Conclusions**

### **10.1 Introduction**

In this chapter consideration will be given to highlight the key findings of the present study in relation to its success of meeting aims and objectives. Findings related to each theme, distinctive features of individual cases and cross case analysis were presented in previous chapters. Detailed analysis mapping, (situational analysis) was also presented in the previous chapter which led towards the information literacy implementation model. This chapter will support previous chapters by addressing how study objectives were attained. In addition, the chapter will discuss the contributions of the study towards research and practice. This chapter will conclude with recommendations for future research.

### **10.2 Achieving objectives of the study and key findings**

The main purpose of this exploratory multiple sequential case study is to explore information literacy practice in primary schools of Lahore, Pakistan. Lahore is the second largest and second most populated city of Pakistan. Through this qualitative case study design, data was collected from six different types of schools (public, private trust, private un-registered and elite class private schools) of Lahore city. The main objectives of the study, those were achieved are stated below:

- To explore IL classroom practices in the selected primary schools of Lahore, Pakistan
- To identify teachers' teaching methodology in terms of IL instruction
- To highlight the roles of library and librarian in terms of IL instruction
- To analyze the students' information behaviour and IL skills
- To gain insight into key aspects of IL relevant to the selected cases
- To identify the problems in the implementation of IL instruction program in the selected schools
- To propose an IL model based on findings

Objective one and two were addressed by interviewing primary school teachers of selected cases of schools. A total of 11 teachers of grade one and two students were interviewed; in public, private trust and private un-registered schools, class teachers were participants and in elite class, English language teachers were participants. In public, private trust and private un-registered schools, class teachers were teaching all the subjects at grade 1 and 2 educational levels. The teachers' data was not available for case two. The researcher was permitted to collect data from teachers and children, however on the decided day, the head teacher did not allow the researcher to interview teachers. The findings revealed that there was no IL practice integrated in classroom activities. However, creative writing practice was indicated in two schools where IL instruction can be practiced. In the

elite class private school, classroom activities involved creative writing and practice of thinking skills in order to organize information. It was an important finding which influenced the IL skills of participant children.

Secondly, the teachers were teaching through traditional teaching methods. They complained about lack of instructional material as an excuse to not practice activity based teaching. It can be concluded that participant teachers were not using IL instruction in their teachings. However, only elite class teachers said that sometimes they ask children to find information in English language assignments, but not regularly.

Objective three was achieved by interviewing the school librarians (where available). They were asked about their role as a librarian and the nature of the library services in terms of information literacy. Out of six selected cases only two schools had librarian/library teachers and three schools mentioned that they have libraries. The librarian and library teacher had no role in IL instruction and they were not aware of this concept. In the elite class private school the role of library teacher was to run English language reading classes and issue/return of library books. In the public school the role of librarian was more focused on teaching than on managing the library. The detailed findings are discussed in chapter six. In these selected cases of schools, library as a place was used as classroom, reading place, place to sit quiet and a place to rest. No library services were observed in terms of IL instruction.

In the elite class private school, the library teacher was maintaining school children's reading records (detail in chapter six) and it was found that the children were regular readers. After reading books, their teachers asked questions from the story which had been read. It was observed that these children were very good readers and had a better recall level than other participants of the study. It was found that both school libraries were offering meaningless library hours to school children.

To address the fourth objective of the study the data was collected in two forms. Firstly, the 12 focus groups were conducted with grade one and two children. Secondly, six activity based tasks were also conducted to assess children's IL skills. It was found that children had a limited exposure to a variety of information sources. Their favourite information sources were their elder brother/sisters and sources (books) used by them. On the other hand, elite class private school children identified the internet (particularly Google) and books as their favourite information sources. A restricted culture was observed at homes and schools, where older family members and teachers considered that these children are too young to use internet and other printed material (newspaper).

Some interesting findings were revealed during task based activities. It was found that only a few children were able to perform these activities and those who performed them had very poor IL skills (from public, private trust and private un-registered schools). Only the elite class school's children possessed good IL skills, however they were weak in identifying specific information and identifying parts of books (spine label and the difference between author and illustrator).

The fifth objective was achieved through different research methods at different stages of the case study. Firstly, the primary school curriculum (English language, General knowledge and Mathematics) and teacher guides were analysed (see details in chapter 4) to see the provision of IL content. It was found that English language curriculum and teacher guides have many provisions to integrate IL instruction and practice. Secondly, the observation of teaching environment and participants and field notes also revealed some aspects for IL practice. Thirdly, pictures were taken, where school staff allowed this as evidence, to show different aspects of the current situation (pictures of classroom activity sheets, pictures of library, pictures of learning environment) (see details in chapters 5,6 and 7).

The teachers and librarians were asked about the problems which cause hurdles in implementing IL instruction, during interviews which addressed the sixth objective of the study. The teachers complained about the inflexibility of the curriculum, lack of time and lack of instructional material. Some teachers highlighted that low economic geographic area and uneducated parents are main reasons in the lack of implementation of IL instruction. The librarians mentioned their professionally confused roles as teachers (teaching of other subjects) and as library managers. The library teacher in the elite class private school complained about her work load and having no staff support.

The final objective of the study was achieved by proposing an IL implementation model based on findings (see chapter 9). After thematic analysis, the situational mapping was done to explore the data further and through different lenses. The mapping identified key factors and elements and relationship in the present situation of inquiry. An information literacy implementation model was proposed based on analysis and situational mapping (Figure 9.13, see chapter 9). Based on findings, a suggested IL curriculum framework for primary education was developed (Figure 9.14, see chapter 9). This framework highlights the main areas to be included in IL instruction at primary educational level in Pakistan.

### **10.3 The contributions of the study**

This qualitative multiple case study presented a holistic approach of the overall situation of information literacy in selected primary schools of Lahore city of Pakistan. The present study has contributions to methods, research and practice.

#### **10.3.1 Methodological contributions**

The present study has successfully used the case study approach to get a holistic picture of the situation in depth. Also this study explored all the key stakeholders, elements and related aspects of information literacy in the given situation. This study also applied different data collection methods (interviews, focus groups, task based activities, analysis of related documents/pictures and observation) which reinforce the validity of the findings. This study is unique in its selection of school cases, three public and three private schools were selected from different economically and geographic sectors of the city of Lahore, Pakistan. Overall, the methodological approach is very useful in exploring the information literacy situation in context and in depth.

#### **10.3.2 Contribution to research**

##### **10.3.2.1 Novelty of the research**

The researcher is the first person who looked into the information literacy situation at primary school level in Pakistan. This novel idea was not investigated in depth before in Pakistani context.

This is the first research based study of Pakistan which explored the information literacy situation at primary education level in depth and in detail. The previous study of the researcher (Batool & Mahmood, 2012) was conducted at small scale in private sector primary schools. The survey method approach was used which was not in depth and limited to teachers' data.

It is a unique study in its kind which presents the whole of the information literacy situation in different sectors (public and private) and in different economy based geographic areas of Lahore city. The study also explored unusual diversity of primary schools in a Pakistani context.

##### **10.3.2.2 Situational analysis**

For the first time the information literacy situation was analysed through different lenses (political, professional, learning, socio-cultural and home) (Figure 9.12, Chapter 9) in a developing country context at primary school level. The situational mapping technique was used to highlight different elements and the relationship between those elements. This relationship is not identified in previous studies. The present study revealed novelty in practice and research by utilizing situational analysis to explore the information literacy situation nationally.

### ***10.3.2.3 Distinctive research design for a study in this field***

This study has a distinctive contribution in collecting data from all the stakeholders in the given situation. The data was collected from teachers, librarians and children within a school context. Previous studies of primary school children's information literacy considered only one group of participants and sometimes a combination of two groups.

Only a few studies considered this age group (5-7 years) of children for information literacy assessment. Most of the studies used experimental methods for this purpose. The present study contributed to research by selecting this age group of school children.

By using a multiple data gathering approach, this study applied unique research design for studies investigating primary schools and IL. The task based activities were for the first time conducted with this age group (5-7 years) of children to assess their IL skills. These activity sheets were adapted from literature and used for assessment.

Therefore, present study introduced the idea and contributed to literature that IL activity sheets can be used as assessment tools as part of a research study (See Chapter 7).

The present study used a combination of thematic and situational analysis to present findings. This combination enabled the researcher to look at the data through different lenses holistically.

### ***10.3.2.4 Model development***

The national proposed implementation model which emerged is a contribution to knowledge and LIS literature. The model presents a logical connected picture and the role of key elements at primary education level in Pakistan. The proposed model is based on findings and developed through a pragmatic approach (Figure 9.13, see chapter 9). The model presents four stages: planning, execution, training and implementation. It further identifies the key stakeholders at each stage and the processes to be done at each stage. There is increasing emphasis on research *impact*, and there is potential for the findings of this research to influence practice, which requires planning and change. This model provides a basis for future researchers who are interested in exploring information literacy and related factors at primary educational level. This proposed model is a route/tool for future professionals and can be used as a stimulus for future research.

An information literacy curriculum framework for primary educational level also emerged, based on focus groups and activity based task findings. This framework highlighted which important areas are needed and could be integrated into the curriculum (Figure 9.14, see chapter 9). This framework provides a basis for further research and discussion in the information literacy domain focusing on the Pakistani context.

The study proposed participant children's levels of information literacy skills (see chapter 7). This identification of primary school children's information literacy skill levels is a unique contribution, and could be tested in other national contexts by researchers. This contribution provides directions to future research and this framework (Figures 7.16, 7.22, 7.27, 7.39, 7.48, Chapter 7) can be further investigated in different research contexts.

### **10.3.3 Contribution to Practice**

#### ***10.3.3.1 Implications for policy makers***

- The study has implications for the policy makers in the field of education and library and information science. The highlighted factors in this research may help them, at the planning stage, to decide which factors may be given importance and priority.
- The present study concludes that information literacy awareness and training is very important, this suggestion could be highly considered at the planning stage by the policymakers.

#### ***10.3.3.2 Implications for educationists***

- An integrated IL curriculum could be developed with the help of educationists, teachers, educated parents and school librarians. It was found that present curriculum (2006) has provisions for the practice of information literacy. This study suggests proper implementation of curriculum at primary educational level by providing school infrastructure and appropriate instructional material to teachers.
- There are implications for the head teachers of public schools and private school owners to establish a resourceful library and make available library resources for teachers and children. A meaningful library hour could be announced compulsory for primary grades.
- The finding related to teachers' teaching methodology revealed that they were using traditional methods and were not motivated to teach innovative methods. The implication of these findings suggest that teachers' hiring criteria could be changed and the in service teachers could be provided with special training in order to learn innovative methods and IL instruction.
- The findings about the school children's information behaviour and IL skills have recommendations for teachers and family members to change their learning support behaviours towards them. There is a dire need to develop school children as independent information learners from primary educational level.

### ***10.3.3.3 Implications for library professionals & organizations***

- An important finding about lack of school libraries and librarians suggests that for the proper implementation of information literacy, establishment of school libraries and hiring of professional librarians could be a significant step.
- This study identified many factors which influence the role of school librarians. These findings have implications for the role of school librarian and also for the library schools and professional organizations to offer specialization and training for school librarians.

## **10.4 Limitations of the study**

The conduct of the study had many limitations. The main limitation is that present study's research design was case study (focused on a few cases) to explore the phenomenon in depth, however, the findings cannot be generalized. The recommendations can be used in the same circumstances (or cities of Pakistan or in developing countries context) or where a similar education system is in practice.

Some other limitations are discussed below:

### **10.4.1 Limitations of the literature**

The literature was reviewed in order to cover information literacy concept and related models at school level specifically primary school level. However, a more comprehensive review was not possible due to time limitations of a PhD study. The literature was used to present the background of the selected school cases and to support study arguments. Also the literature review was limited due to the non-availability of local literature on information literacy at primary education level. In IL literature, there is limited research on children aged 5-7 years (present study's children participants). The local literature was also consulted to present educational statistics of Pakistan and for the understanding of the background.

### **10.4.2 Limitations of case study one**

Although the researcher received permission to collect data from school teachers and children they did not allow her to conduct interviews in free or school's extra time. The given time of interviews and focus groups was shorter than the requested time. However, the teachers answered all interview questions and allowed the researcher to take pictures and visiting classrooms.

### **10.4.3 Limitations of case study two**

In this school, head teacher did not allow the researcher to interview teachers. However, when the researcher received permission for data collection from this school, the head teacher was willing to

have data collected from teachers and children. Therefore, the teachers' data is missing to analyse in case study two.

The head teacher also did not allow the researcher to visit classrooms. The researcher conducted focus groups with the school children in an unused room where they stored old and broken furniture. In this case, observation of the learning environment of classrooms was also a limitation

#### **10.4.4 Limitations of case study three**

The given time for data collection was a limitation in case three. The researcher was asked to conduct interviews and focus groups as early as possible. Also there was no proper room for data collection purposes. The researcher conducted all the interviews and focus groups in the playground outside the classrooms, where background noise was a big challenge. In focus group recordings, it was difficult to recognize participant children's voices.

During focus groups with children, their teachers were interrupting and helping them to answer. The study has limitations in this regard, however, the observation method and field notes were helpful to avoid this conflict. The researcher could not visit the school library as school staff did not allow this.

#### **10.4.5 Limitations of case study four and five**

The researcher faced limitations while collecting data from case four and five. In case three, there was no proper place to conduct interviews. The researcher was conducting interviews and focus groups in a porch at the back of the principal's office in case four (see chapter 5 for details). The people were talking in principal's office and he did not allow his office door to be closed. Outside traffic noise made it very hard to understand audio recordings. As the researcher approached this school through personal reference, the principal allowed her to visit library but he did not allow taking pictures.

In case five, the researcher collected data in a classroom which was partitioned to make a small lab (see chapter 5 for details). There was no electricity and it was dark and humid inside the classrooms. It was difficult to convince children and teachers to cooperate in giving detailed interviews in this situation.

#### **10.4.6 Limitations of case study six**

The teachers and school children were very busy in attending their classes. On the decided day and time of collecting data, school staff asked the researcher to wait. She conducted children's focus groups during their library hour. The teachers were interviewed in the school's corridor as there was no spare room for this purpose. The researcher faced disturbance as people were passing and talking with teacher participants during interviews.

## 10.5 Recommendations

The suggested information literacy curriculum framework and implementation model (section 9.10, 9.11) are presented as recommendations in this study, which could work as stimulus for future researchers. Based on findings, this study presents the following recommendations for future research.

### 10.5.1 Recommendations for future research

- It is important to study information literacy as a concept and as terminology used at primary educational level. The present study's findings are focused on IL practice in primary schools.
- The study was focused on teaching IL practice within classrooms, other forms of IL practice (detailed curriculum, school's overall planning, teachers' lesson planning) can be further researched at school level.
- There is a need to further explore this problem at the level of policymakers, school owners and head teachers, so that the gaps of planning and decision making stages can be explicitly identified.
- The problem of weak basic literacy skills emerged in the present study; there is a dire need to further explore causes of this problem which is directly related to the learning of IL.
- The role of library schools and professional library organizations should also be examined to produce experts in school media librarianship.
- Another important finding, the attitude of primary school teachers, needs to be further explored as teachers can play a critical role in implementing IL instruction program.
- There is an opportunity to examine the role of public libraries and libraries in providing children and schools' learning support services. These unexplained issues were beyond the scope of the present study, therefore need further research.
- There are number of problems indicated by school teachers and librarians, for example lack of instructional material, curriculum learning gaps, and librarian is liable for loss of material. These issues should be further researched in education and LIS domains.
- There is also opportunity for researchers to explore primary schools within wide geographic areas of Pakistan maybe through quantitative measures to further confirm this study's findings.
- One of the important findings indicated that a tuition culture is prevailing in Pakistan. Future studies should focus on the impact of tuition culture on the learning of school children.

- Another important finding is the impact of restrictive culture (while using information sources) on the information literacy skills of children. This is relatively unexplored area within LIS domain that should be highlighted.
- The proposed model of information literacy implementation is based on findings from the current study, however it provides basis for future research to explore with different elements and stakeholders. The model and recommended IL curriculum framework (section 9.10, 9.11) should be tested in future through action research.

## **10.6 Concluding Remarks**

This chapter attempts to summarize and conclude the whole case study that presented the holistic picture of IL practice in primary schools of Lahore, Pakistan. To remind readers, the study objectives are re-stated and it is explained that how each objective has been achieved. The contributions of the study are also discussed in detail in terms of research, practice and methodology. In addition, the limitations of the study, specifically related to each case (school) are explained in this chapter. The other sections of the chapter present implications of this exploratory study for practice and research. Finally, the future research recommendations based on study findings are addressed in the last section of this chapter.

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## Appendix 1

### Teachers' Interviews Information Sheets

<b>The University of Sheffield. Information School</b>	Exploring information literacy (IL) practices in primary schools: A case of Pakistan
--	--

#### Researchers

Syeda Hina Shahid Contact: s.h.shahid@sheffield.ac.uk

#### Purpose of the research

*The research aims to explore information literacy practices in the selected primary schools of Pakistan.*

#### Who will be participating?

*This study will invite primary school teachers referred by school authorities for semi structured interviews.*

#### What will you be asked to do?

*The teachers will be invited to participate in interviews. I will ask teachers about their main subjects, teaching experience and style to know their exact area of interest. Then I will ask them about their perceptions about information literacy (IL) and their practices in class rooms. They will be asked about possible barriers of conducting IL activities in schools. During, or subsequent to, the interview I will ask them to show me any relevant material (e.g. class worksheets).*

#### What are the potential risks of participating?

*A potential risk of participating in the study is lack of data confidentiality. However, the participants will be assured about anonymity of data, and all files will be password protected for security reasons.*

#### What data will we collect?

*I will audio record the interview and make my own notes about the interviews. Materials relevant to class activity may be photographed, or may be copied with permission of the interviewees. Interview questions will focus on teachers' perceptions and practices of information literacy.*

#### What will we do with the data?

*I will use the data for my PhD dissertation (academic purpose) and after that data will be destroyed.*

#### Will my participation be confidential?

*We will code all the data to ensure anonymity. Interview questions are not focused on demographic profile of the participants so basic identifying information is not sought. Data which has not been anonymised will be coded and accessible to the researcher alone.*

#### What will happen to the results of the research project?

*The results will be included in my PhD dissertation which can be accessed through University library or website. The results will also be published in journal articles.*

I confirm that I have read and understand the description of the research project, and that I have had an opportunity to ask questions about the project.

I understand that my participation is voluntary and that I am free to withdraw at any time without any negative consequences.

I understand that I may decline to answer any particular question or questions, or to do any of the activities. If I stop participating at all time, all of my data will be purged.

I understand that my responses will be kept strictly confidential, that my name or identity will not be linked to any research materials, and that I will not be identified or identifiable in any report or reports that result from the research.

I give permission for the research team members to have access to my anonymised responses.

I give permission for the research team to re-use my data for future research as specified above.

I agree to take part in the research project as described above.

---

Participant Name (Please print)

---

Participant Signature

Syeda Hina Shahid

---

Researcher Name (Please print)

---

Researcher Signature

Date

---

**Note: If you have any difficulties with, or wish to voice concern about, any aspect of your participation in this study, please contact Dr. Angela Lin, Research Ethics Coordinator, Information School, The University of Sheffield ([ischool\\_ethics@sheffield.ac.uk](mailto:ischool_ethics@sheffield.ac.uk)), or to the University Registrar and Secretary.**

## Appendix 2

### Group Interviews/Focus groups Information Sheet

<b>The University of Sheffield. Information School</b>	Exploring information literacy (IL) practices in primary schools: A case of Pakistan
--	--

#### Researchers

*Syeda Hina Shahid Contact: s.h.shahid@sheffield.ac.uk*

#### Purpose of the research

*The research aims to explore information literacy practices in the selected primary schools of Pakistan.*

#### Who will be participating?

*This study will invite primary school children referred by school teachers for group interviews. A group will consist of 4-5 children.*

#### What will you be asked to do?

*During group interviews I will ask children about their information seeking behaviours. During interviews some activity sheets will be distributed among children to talk about and solve those sheets. This will help the researcher get to know about their information literacy skills.*

#### What are the potential risks of participating?

*Potential risk of participating in the study may be a little pressure on children to due researcher (stranger) presence. For that purpose group interviews will be conducted in classrooms and in the presence of their teachers to provide them with a familiar environment.*

#### What data will we collect?

*I will audio record the interview and make my own notes about the group interview. Activity sheets will also be collected from children to learn about their IL skills. During the interviews, the classrooms themselves will be observed for any relevant data (e.g. displays of student work or posters) and photographs taken, with permission*

#### What will we do with the data?

*I will use the data for my PhD dissertation (academic purpose) and after that data will be destroyed.*

#### Will my participation be confidential?

*We will code all the data to ensure anonymity. Group interviews are not focused on demographic profile of the children so basic identifying information is not being sought. However, all the data will be coded and only accessible to the researcher.*

#### What will happen to the results of the research project?

*The results will be included in my PhD dissertation which can be accessed through University library or website. The results will also be published in journal articles.*

I confirm that I have read and understand the description of the research project, and that I have had an opportunity to ask questions about the project.

I understand that my participation is voluntary and that I am free to withdraw at any time without any negative consequences.

I understand that I may decline to answer any particular question or questions, or to do any of the activities. If I stop participating at all time, all of my data will be purged.

I understand that my responses will be kept strictly confidential, that my name or identity will not be linked to any research materials, and that I will not be identified or identifiable in any report or reports that result from the research.

I give permission for the research team members to have access to my anonymised responses.

I give permission for the research team to re-use my data for future research as specified above.

I agree to take part in the research project as described above.

---

Participant Name (Please print)

---

Participant Signature

Syeda Hina Shahid

---

Researcher Name (Please print)

---

Researcher Signature

Date

---

**Note: If you have any difficulties with, or wish to voice concern about, any aspect of your participation in this study, please contact Dr. Angela Lin, Research Ethics Coordinator, Information School, The University of Sheffield ([ischool\\_ethics@sheffield.ac.uk](mailto:ischool_ethics@sheffield.ac.uk)), or to the University Registrar and Secretary.**

## Appendix 3

### Interview Questions for Semi-Structured Interviews

Respondents demographic

Gender, Age group, Highest qualification, Teaching experience, Subject

1. How would you develop your teaching methodology?
  - 1.1 Is this decided by school or you modify?
2. Do you use varied information sources (internet, books, magazines, newspapers etc.) in your teaching?
  - 2.1 If so how you use them in your teaching?
3. How would you teach children usually with books, activities, use of teaching material etc.?
  - 3.1 What you gain from the classroom activities? (Outcome)
  - 3.2 Are there some students who engage more why?
4. Do you use school library in your teaching?
  - 4.1 Do you incorporate library resources in your teaching, For example dictionaries, encyclopaedias etc. and how?
  - 4.2 Do you have a library visit if so who assist you in using library?
  - 4.3 What students are expected to do during library visit?
  - 4.4 Why you not encourage them to use library?
  - 4.5 What services library should offer?
5. Does your teaching involve any information finding exercises?
  - 5.1 Can you share any example?
  - 5.2 Why you do not involve students in activities through your teaching?
6. Do you do any activity which focus on making sense of information (e.g. Using text, pictures, audio/video)?

6.1 What you expect from students to do in such activity?

6.2 Does your teaching involve any activity making connection between old and new information?

7. Do you teach how to evaluate information sources (For Example aware of bias, good/bad sources for subject)?

7.1 Do you teach them what are good and bad information sources?

8. Are you familiar with the term information literacy?

## **Appendix 4**

### **Interview Questions added after Pilot Case**

1. If so how you use (information sources) in your teaching?
2. What you gain from the classroom activities? (Outcome)
3. Are there some students who engage more why?
4. Why you not encourage them to use library?
5. Why you do not involve students in activities through your teaching?
6. What you expect from students to do in information finding activity?

## Appendix 5

### Interview Questions for Librarians

Education

Experience

How much collection is in your library (Reference, A/V material etc.)?

How do you manage your library with teaching?

Do you have other staff support?

How you purchase library books?

Which classification scheme you used to organize books?

Do you conduct library hour?

What you do during library hour?

Which services you offer to school children?

Do you support teachers in their teaching practice?

Is there any collaboration between teachers and you?

Why you do not collaborate with teachers?

Do you give any information finding exercise during library hour?

Why you are not giving any information finding exercise during library hour?

Do you issue books to school children?

Which type of library material is most circulated?

Are teachers using library to support their teaching?

Are you familiar with the term information literacy?

## Appendix 6

### FOCUS GROUP QUESTIONS

1. Do you have library in your school?
2. When you visit library?
3. Do you like your library?
4. For what purpose you visit?
5. Do you know how to find information on “wild animals, cities, trains” etc.
6. Who can help you in finding information?
7. Do you know how to issue books from library?
8. Does your teacher give you any information finding exercise?
9. How did you find information for your any home/school assignment?
10. Have you ever used magazines, newspapers in your work?
11. Have you ever used dictionary, encyclopaedia?
12. Can you share any story you read last time?

## Appendix 7

### Research Ethics Approval

Information School Research Ethics Panel

Letter of Approval

Date: 22<sup>nd</sup> April 2014

TO: Syeda Shahid

The Information School Research Ethics Panel has examined the following application:

Title: Exploring information literacy (IL) practices in primary schools: A case of Pakistan

Submitted by: Syeda Shahid

And found the proposed research involving human participants to be in accordance with the University of Sheffield's policies and procedures, which include the University's '*Financial Regulations*', '*Good Research Practice Standards*' and the '*Ethics Policy Governing Research Involving Human Participants, Personal Data and Human Tissue*' (Ethics Policy).

This letter is the official record of ethics approval by the School, and should accompany any formal requests for evidence of research ethics approval.

Effective Date: 22<sup>nd</sup> April 2014



Dr Angela Lin  
Research Ethics Coordinator

## Appendix 8

### Permission to Use UNESCO publications' statistics

Khan, Riaz <r.khan@unesco.org>

14 Oct ☆ 

to me ▾

Dear Ms. Syeda Hina Shahid,  
Thank you for your email!

All the publications on UNESCO website are for public use and information. You can use it for your PhD. Study by agreeing to the following copy rights policy.

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Best of luck.

Best Regards,  
Riaz



United Nations  
Educational, Scientific and

..... Riaz Karim Khan  
..... Programme Officer  
..... Communication and Information  
..... UNESCO Islamabad, Pakistan  
.....  
..... 7th Floor, Serena Business Complex,

## Appendix 9

### Thematic Analysis

1 <sup>st</sup> order codes	2 <sup>nd</sup> Order codes	3 <sup>rd</sup> order codes		
Children after school activities	Everyday activities			
Colouring activities				
Domestic work				
Home tuition				
Homework				
Limited fun time			Children behavioural issues	
Play time			Independent tasks	
Quran reading			Lack of familiarity with information sources	<b>Information behaviour</b>
story books			Love for books	
watching TV			Information search related knowledge	
Children behaviour	Children learning at school			
copying each other	Familiar & favourite information sources			
Disturbed children	Children fantasy			
Independent tasks	Limited use of technology			
independent computer user				
limited knowledge of sources				
concept of story books				
love reading				
wish for library				

	Reflection on read stories		Restricted access to information sources	
	weak understanding at school			

	Children information seeking		Teachers' information sources	
	Information search related knowledge			
	Familiar & favourite information sources			
	books			
	elder brothers sisters			
	Environment			
	library			
	magazines, newspapers			
	Observation			
	old books of their siblings			
	parents			
	school teacher			
	sources used by their elders			
	tuition teacher			
	Children fantasy			
	Restricted access			
	AV material			
	computer			

<table border="1"> <tr><td>cartoons</td></tr> <tr><td>colouring</td></tr> <tr><td>communication with relatives</td></tr> <tr><td>games</td></tr> <tr><td>religious use</td></tr> </table>	cartoons	colouring	communication with relatives	games	religious use		
cartoons							
colouring							
communication with relatives							
games							
religious use							

<table border="1"> <tr><td>songs</td></tr> <tr><td>magazine</td></tr> <tr><td>newspaper</td></tr> <tr><td>pets</td></tr> <tr><td>write stories</td></tr> <tr><td>Teachers sources</td></tr> <tr><td>Lesson planning sources</td></tr> <tr><td>Personal information sources</td></tr> </table>	songs	magazine	newspaper	pets	write stories	Teachers sources	Lesson planning sources	Personal information sources	Teachers' perceptions about children	
songs										
magazine										
newspaper										
pets										
write stories										
Teachers sources										
Lesson planning sources										
Personal information sources										
Teachers' perceptions about children										
<table border="1"> <tr><td>children perception about library</td></tr> <tr><td>Play area</td></tr> <tr><td>Books place</td></tr> <tr><td>Pictures of books</td></tr> <tr><td>physical library place</td></tr> </table>	children perception about library	Play area	Books place	Pictures of books	physical library place	Conceptions of library	<b>School libraries</b>			
children perception about library										
Play area										
Books place										
Pictures of books										
physical library place										

Reading place Cabinet of books Multimedia room Store room		
School Libraries	School libraries	Library services
Budget		
Librarian role		
Library collection		
Library hour		
Library orientation		

Library services	Library operations	Problems
Library user		
library visiting frequency		
Library without librarian		
Most circulated material		
problems		
Book theft		
Liable librarian		
Teacher Problems	Problems	<b>Problems</b>
Lengthy curriculum		
Learning gaps		
Different age children		

Geographic area	Teachers' training sources	<b>Teachers' Teaching Methods, learning attitude &amp; training sources</b>
Missing facilities		
Domestic issues		
Personal problems		
Poor background		
Non availability of teacher Guide		
Lack of teaching material		
Uneducated parents		
Teacher training		
Colleagues		
courses		
Diaries		
Guidelines		
Guides		

Instructions	Teachers' attitude towards learning
Teachers' attitude	
encouraging	
forced learning	
forced professional development	
lack of conceptual clarity	
lazy	
no lesson planning	

Personal issues are priority		
<p>Teaching methodology</p> <p>Lecture</p> <p>Basics of computers</p> <p>Storytelling</p> <p>Use of library</p> <p>Use of other information sources</p> <p>Use of teaching material</p>	Teaching strategy	
<p>Classroom activities</p> <p>creative writing</p> <p>Brainstorming</p> <p>Information finding exercise</p> <p>Physical games</p> <p>Physical work</p> <p>Use of AV material</p> <p>Board writing</p> <p>Display class works</p>	Classroom activities	
<p>Group discussions</p> <p>Real time examples</p>		
<p>Information literacy practice</p> <p>Immediate response to the IL term</p> <p>IL practice curriculum domains</p> <p>Finding information tasks</p>	Information literacy practice	<b>Information literacy practice</b>

## **Appendix 10**

### **List of Documents Analysed**

- Primary English language curriculum 2006
- Primary English language Teacher Guide Grade 1 2006
- Primary English language Teacher Guide Grade 2 2006
- Primary General Knowledge curriculum 2007
- National Curriculum Early Childhood Education 2002
- Classroom activity sheets (Section 7.4.3, Chapter 7)

## Appendix 11

### Documents analysis check List

**Is there any (IL) connection established with P (purpose= identifying the purpose of an investigation or assignment) component of PLUS model?**

**Is there any (IL) connection established with L (location= *Location* finding relevant information sources related to the purpose) component of PLUS model?**

**Is there any (IL) connection established with U (use= selecting and rejecting information and ideas, reading for information, notetaking and presentation) component of PLUS model?**

**Is there any (IL) connection established with S (self-evaluation= How pupils evaluate their performance in applying information skills to the assignment and what they learn for the future) component of PLUS model?**

## Appendix 12

English Language Curriculum (selected pages showing IL connections)

National Curriculum for  
**ENGLISH LANGUAGE**  
Grades I – XII  
2006

GOVERNMENT OF PAKISTAN  
MINISTRY OF EDUCATION  
ISLAMABAD



## 2.4: Competencies, Standards and Benchmarks

### Competency 1: Reading and Thinking Skills (C1)

**Standard 1:** All students will search for, discover and understand a variety of text types through tasks which require multiple reading and thinking strategies for comprehension, fluency and enjoyment (C1, S1)

(The reading texts will comprise a variety of text types e.g. interpersonal and transactional, **expository**, descriptive and **narrative** with literary texts comprising 25% of the reading material)

Please note: As the reader will observe, in the benchmarks below different kinds of oral and written tasks are used to measure students' development of reading comprehension. However, it is emphasized that the function of writing tasks here is to demonstrate and evaluate learners' comprehension of the material read.

#### Benchmarks

	Grades I - II	Grades III - V	Grades VI - VIII	Grades IX - X	Grades XI-XII
BM 1	Use <b>reading readiness strategies</b> ; recognize words and sentences as meaningful units of expression and paragraphs as graphical units of expression.	Identify <b>digraphs</b> , silent letters, and <b>inflections</b> in words; comprehend words, sentences and paragraphs as meaningful units of expression.	Analyze patterns of text organization, and function of various devices used in a paragraph.	Analyze patterns of text organization, and function of various devices used within and beyond a paragraph in a text.	Evaluate patterns of text organization, and function of various devices used within and beyond a paragraph in a text.
BM 2	Identify factual information applying reading comprehension and thinking strategies.	Interpret factual information, new processes and procedures, personal, school and public related information, applying reading comprehension and thinking strategies.	Extend conceptual understanding of processes, procedures, events and issues, applying reading comprehension and thinking strategies.	Analyze complex processes, procedures, events, issues, and various viewpoints, applying reading comprehension and thinking strategies.	Analyze, synthesize and evaluate events, issues, ideas and viewpoints, applying reading comprehension and thinking strategies.
BM 3	Locate information from a <b>visual cue</b> or a <b>graphic organizer</b> and express the information verbally.	Comprehend information from a <b>visual cue</b> or a <b>graphic organizer</b> to describe positions, directions, events, sequences, and to show comparison and contrast.	Interpret information from a <b>visual cue</b> or a <b>graphic organizer</b> to give directions, describe positions, simple processes and procedures and cause and effect relationships.	Analyze information from a <b>visual cue</b> or a <b>graphic organizer</b> to show complex processes, procedures, comparisons, contrasts, and cause and effect relationships.	Analyze and synthesize information from a <b>visual cue</b> or a <b>graphic organizer</b> to summarize, highlighting the key areas and main trends.
BM 4	Locate information for specific purposes using various aids and study skills.	Gather and use information for a variety of purposes using various aids and study skills.	Gather, analyze, and use information for a variety of purposes using various aids and study skills.	Gather, analyze, evaluate and synthesize information to use for a variety of purposes including a research project using various aids and study skills.	Gather, analyze, evaluate and synthesize information to use for variety of purposes including a research project using various aids and study skills.

11

National Curriculum for English Language Grades I-XII, 2006

### Competency 1: Reading and Thinking Skills (C1)

**Standard 2:** All students will read and analyze literary text to seek information, ideas, enjoyment; and to relate their own experiences to those of common humanity as depicted in literature. (C1, S2)

#### Benchmarks

	Grades I - II	Grades III - V	Grades VI - VIII	Grades IX - X	Grades XI-XII
BM 1	Recall stories and nursery rhymes; express personal reactions to characters and events in them.	Describe basic elements of stories and simple poems; express personal preferences giving reasons.	Analyze short stories and poems; identify with characters' emotional response, motives and actions.	Analyze short stories, poems, and essays; make connections between literary texts and their own lives.	Analyze and evaluate short stories, poems, essays and one-act plays; relate how texts affect their lives and connect the texts to contemporary and historical ideas /issues across cultures.

### Competency 2: Writing Skills (C2)

**Standard 1:** All students will produce with developing **fluency** and **accuracy**, academic, transactional and **creative writing**, which is **focused**, **purposeful** and shows an insight into the **writing process** (C2, S1)

Please note: Reading and writing are integrally related. Good readers are also better writers. In the light of this, identifying and analyzing elements of written texts, focused earlier in reading standards and benchmarks, are sometimes repeated in this section to show this essential relationship for teaching and testing of writing.

#### Benchmarks

	Grades I - II	Grades III - V	Grades VI - VIII	Grades IX - X	Grades XI-XII
BM 1	Write words and sentences using writing techniques.	Identify and use techniques for writing effective and unified sentences and a paragraph.	Analyze written <b>discourse</b> to use in their own compositions, techniques for effective paragraph organization and development such as a clear <b>topic sentence</b> and <b>supporting details</b> .	Analyze a variety of written <b>discourse</b> to use in their own compositions, techniques for effective text organization, development, and author's techniques that influence reader.	Analyze and evaluate a variety of written <b>discourse</b> to use in their own compositions, techniques for effective text organization, development, and author's techniques that influence reader.

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National Curriculum for English Language Grades I-XII, 2006

BM 2	Write sentences, answers to simple questions and guided stories about familiar topics.	Write short descriptive, <b>expository</b> and <b>narrative</b> paragraphs and stories for academic and creative purposes.	Write descriptive, <b>expository</b> and <b>narrative</b> texts for different purposes and <b>audiences</b> .	Write a variety of <b>expository</b> , <b>persuasive</b> , analytical essays, and personal <b>narratives</b> for different purposes and <b>audiences</b> .	Write <b>expository</b> , <b>persuasive</b> , analytical essays, research reports, and extended <b>narratives</b> for multiple purposes and <b>audiences</b> .
BM 3	Write a variety of simple interpersonal and transactional texts e.g. greeting cards, postcards, dialogues ( <b>speech bubbles</b> , <b>cartoon strips</b> ) using vocabulary, <b>tone</b> , <b>style</b> of expression appropriate to the communicative purpose and <b>context</b> .	Write a variety of interpersonal and transactional texts e.g. short notes, informal invitations and letters, and dialogues ( <b>speech bubbles</b> , <b>cartoon strips</b> ) using vocabulary, <b>tone</b> , <b>style</b> of expression appropriate to the communicative purpose and <b>context</b> .	Write a variety of interpersonal and transactional texts e.g. informal and formal letters, simple forms, dialogues ( <b>speech bubbles</b> , <b>cartoon strips</b> , <b>role play</b> ) using vocabulary, <b>tone</b> , <b>style</b> of expression appropriate to the communicative purpose and <b>context</b> .	Write a variety of interpersonal and transactional texts e.g. formal letters, letters to the editors, applications, emails, and various forms used in extended social environment using vocabulary, <b>tone</b> , <b>style</b> of expression, conventions appropriate to the communicative purpose and <b>context</b> .	Write a variety of interpersonal and transactional texts e.g. business letters / applications / job advertisements, resume, forms for a range of purposes in real life situations, using vocabulary, <b>tone</b> , <b>style</b> of expression, conventions appropriate to the communicative purpose and <b>context</b> .
BM 4		Revise and edit for word order, spelling and punctuation.	Plan and draft their own writing; revise and edit for paragraph unity, clear central topic, relevant and adequate <b>supporting details</b> , effective <b>style</b> , appropriate <b>transitional devices</b> , punctuation and vocabulary.	Plan and draft their writing; revise and edit for various organization patterns of sequence, comparison, contrast, classification, cause and effect, logical flow of ideas through flexible and clear signal and <b>reference words</b> , <b>point of view</b> , supporting evidence, overall effect, appropriate punctuation and vocabulary.	Plan, draft, revise edit their own texts in areas such as <b>cohesion</b> and coherence, effectiveness of arguments / opinions, sufficient <b>supporting details</b> , creativity, appropriate punctuation and vocabulary.

## Appendix 13

General Knowledge Curriculum (selected pages showing IL connections)

National Curriculum for  
**GENERAL KNOWLEDGE**  
Grades I-III  
2007



**GOVERNMENT OF PAKISTAN  
MINISTRY OF EDUCATION  
ISLAMABAD**

## Grade-I

Themes	Students' Learning Outcomes
<b>My Family</b> <ul style="list-style-type: none"> <li>Family Members.</li> <li>Respecting Family Members.</li> </ul>	<ul style="list-style-type: none"> <li>Identify some family members (parents, brothers and sisters, grand-parents, aunts and uncles and cousins (paternal and maternal)).</li> <li>List family members that live with them.</li> <li>Recognize that they should respect all family members.</li> </ul>
<b>The Food I Eat</b> <ul style="list-style-type: none"> <li>Common Food Items.</li> <li>Cleanliness and Food.</li> </ul>	<ul style="list-style-type: none"> <li>List food items that they usually eat at home.</li> <li>Name the food items they like to eat.</li> <li>Recognize the importance of different food items they eat.</li> <li>Recognize the importance of washing hands before and after eating.</li> <li>Demonstrate the etiquettes of eating.</li> <li>Recite <i>Du'ā</i> both before and after taking meal.</li> </ul>
<b>Games and Rules</b> <ul style="list-style-type: none"> <li>Different Games.</li> <li>Rules of Playing Games.</li> </ul>	<ul style="list-style-type: none"> <li>Name the games they like to play.</li> <li>Identify different games from the given pictures.</li> <li>Identify the general rules of playing a game.</li> <li>Recognize the importance of following rules.</li> <li>Observe the rules when playing a game.</li> </ul>
<b>What I want to be?</b> <ul style="list-style-type: none"> <li>Common Professions.</li> <li>Profession they want to choose.</li> </ul>	<ul style="list-style-type: none"> <li>Identify some professions from pictures (teaching, farming, medicine).</li> <li>State what they would like to be when they grow up and why.</li> <li>Gather information from other students in their class regarding what they would like to be when they grow up.</li> </ul>
<b>Life and People in the Past</b> <ul style="list-style-type: none"> <li>Changes in their Lives.</li> <li>Key Events in their Lives and their Parents.</li> </ul>	<ul style="list-style-type: none"> <li>Identify key events in their lives.</li> <li>Make a pictorial timeline for the key events in their life (birth of a sibling, a trip, some wedding or a party, a picnic).</li> </ul>

## Grade-I

Themes	Students' Learning Outcomes
<p><b>School</b></p> <ul style="list-style-type: none"> <li>• People in School.</li> <li>• Activities in School.</li> <li>• Obeying Rules.</li> </ul>	<ul style="list-style-type: none"> <li>• Describe and draw a picture of their school.</li> <li>• Identify the people they interact with in school (teachers, students, principal, service providing staff etc.).</li> <li>• List the activities they engage in at school.</li> <li>• List the rules they follow in the classroom.</li> <li>• Follow class rules.</li> <li>• Recognize that they should respect everyone in their school (teachers, class fellows, service providing staff etc.).</li> </ul>
<p><b>Prayer</b></p> <ul style="list-style-type: none"> <li>• Mosque/Masjid.</li> <li>• Āzān and Nāmāz.</li> <li>• Name of Five Prayers.</li> <li>• Places of Worship for Other Religions.</li> </ul>	<ul style="list-style-type: none"> <li>• Recognize that people pray to thank God for His blessings and bounties.</li> <li>• Recognize that people pray in different ways.</li> <li>• Name the five prayers that Muslims offer daily.</li> <li>• Recognize Āzān as a call for Nāmāz.</li> <li>• Find out a Mosque/Masjid in their neighbourhood.</li> <li>• Inquire about other places of worship in their neighbourhood (church, temple etc.).</li> <li>• Recognize that they should respect all places of worship.</li> </ul>
<p><b>Health Care</b></p> <ul style="list-style-type: none"> <li>• Common Illnesses.</li> <li>• Causes of Illness.</li> <li>• People Involved in Health Care.</li> <li>• Ways of protecting oneself from illnesses.</li> </ul>	<ul style="list-style-type: none"> <li>• Recognize that in case of illness they require medical assistance/treatment.</li> <li>• List people who provide health care (doctors, nurses etc.).</li> <li>• Name the nearest health care facility in their neighbourhood.</li> <li>• Describe an incident where they or another family member had fallen sick and took medical treatment.</li> <li>• Identify the causes of illness.</li> <li>• Identify unhealthy habits that cause common illnesses (cough, diarrhea etc.).</li> <li>• List various ways of protecting oneself from diseases (keeping self and surroundings clean, drinking clean water and eating healthy food, getting vaccinated).</li> </ul>

Themes	Students' Learning Outcomes
<p><b>Shop/Market</b></p> <ul style="list-style-type: none"> <li>• Difference between a Shop and a Market.</li> <li>• Common Shops.</li> <li>• Things Sold in a Particular Shop.</li> </ul>	<ul style="list-style-type: none"> <li>• Recognize the difference between a shop and a market.</li> <li>• List things they can buy from a market/shop.</li> <li>• List various kinds of shops in their neighbourhood (meat shop, grocery stores, bakery etc.).</li> <li>• Identify the different things sold in particular shops (e.g. carrots, onions in green grocer).</li> <li>• Recognize that different things have different prices.</li> </ul>
<p><b>Park/Playground</b></p> <ul style="list-style-type: none"> <li>• Need for Parks.</li> <li>• Things in a Park.</li> <li>• Keeping Parks Clean.</li> </ul>	<ul style="list-style-type: none"> <li>• Identify the need for parks in a neighbourhood (for playing, doing exercise, riding, meeting with friends and other people).</li> <li>• List different things in their neighbourhood park/playground.</li> <li>• List ways to keep parks/playgrounds clean.</li> <li>• Design the park they would like to go to.</li> </ul>
<p><b>GETTING AROUND</b> <b>Transportation</b></p> <ul style="list-style-type: none"> <li>• Means of Transportation.</li> <li>• Slow &amp; Fast Means of Transportation.</li> <li>• Activities at Airports, Railway Station and Harbour.</li> </ul>	<ul style="list-style-type: none"> <li>• Identify the means of transportation which people use in their surroundings.</li> <li>• Differentiate between slow &amp; fast means of transportation in their surroundings.</li> <li>• Identify slow &amp; fast means of transportation from charts and pictures (cycle, aero plane, car etc).</li> <li>• Identify the places where buses and trains stop, aeroplanes land and ships berth.</li> <li>• Describe the activities that take place at a bus stop, station, airport, and harbour.</li> </ul>

Themes	Students' Learning Outcomes
<p><b>HOLY BOOKS</b></p> <ul style="list-style-type: none"> <li>• Name of the Holy Books and their Prophets.</li> <li>• Qur`ān - the last Holy Book.</li> <li>• Qur`ān – the Guidance for Mankind.</li> <li>• Respecting all Holy Books.</li> </ul>	<ul style="list-style-type: none"> <li>• Name the Holy Books revealed by Almighty `Allāh.</li> <li>• Identify the Prophet to whom Almighty `Allāh revealed each Holy Book.</li> <li>• Recognize that Qur` ān is the last Holy Book revealed by Almighty `Allāh.</li> <li>• Recognize that the Qur` ān and other Holy Books tell us how to live a good life.</li> <li>• Recognize the importance of respecting all Holy Books.</li> </ul>
<p><b>THINGS AROUND US</b> <b>Plants and Animals</b></p> <ul style="list-style-type: none"> <li>• Common Plants and Animals.</li> <li>• Need of Plants and Animals.</li> <li>• Importance of Plants and Animals.</li> <li>• Living Places of Animals.</li> <li>• Wild and Domestic Animals.</li> <li>• Food for Animals.</li> <li>• Caring for Things around Us.</li> </ul>	<ul style="list-style-type: none"> <li>• Identify the plants they see around them.</li> <li>• Recognize the differences between the plants they see around them.</li> <li>• Recognize the importance of plants/trees as a source of food, shade, and shelter.</li> <li>• Identify the things around them that are made up of plants/trees.</li> <li>• Identify the animals they see around them.</li> <li>• Identify the differences between the animals they see around them.</li> <li>• Identify the food which different animals eat.</li> <li>• Recognize the importance of animals as a source of food, and transport.</li> <li>• Identify the homes of animals (nest, burrow).</li> <li>• Differentiate between animals that can and cannot be kept at home.</li> <li>• Identify the measures for the better care of domestic animals.</li> <li>• Recognize that plants and animals need water, food, and air to live.</li> <li>• List ways in which they can take care of things around them.</li> </ul>

Themes	Students' Learning Outcomes
<p><b>Objects in the Sky</b></p> <ul style="list-style-type: none"> <li>• Sun, Moon and Stars.</li> <li>• Objects during Day and Night.</li> </ul>	<ul style="list-style-type: none"> <li>• Identify objects in the sky during day and night.</li> <li>• Recognize that the sun shines very brightly during the day and gives us heat and light.</li> <li>• Recognize that the moon and stars shine at night.</li> </ul>
<p><b>Weather</b></p> <ul style="list-style-type: none"> <li>• Weather Conditions (Sunny, Rainy, Cloudy, and Windy).</li> </ul>	<ul style="list-style-type: none"> <li>• Identify the daily weather conditions (sunny, rainy, cloudy, and windy).</li> <li>• Predict daily weather conditions (through observations).</li> </ul>
<p><b>Seasons</b></p> <ul style="list-style-type: none"> <li>• Name of Seasons.</li> <li>• Characteristics of the Four Seasons.</li> </ul>	<ul style="list-style-type: none"> <li>• Name four seasons (spring, summer, autumn, and winter).</li> <li>• Illustrate the key characteristics of the four seasons (summer: hot, winter: cold, autumn: leaves fall, spring: new flowers and leaves).</li> <li>• Relate seasonal weather conditions to appropriate choices for clothing, food and recreational activities.</li> </ul>

## Grade-II

Themes	Students' Learning Outcomes
<p><b>Animals</b></p> <ul style="list-style-type: none"> <li>• Animals on Land, Air and in Water.</li> <li>• Use of Animals.</li> <li>• Growth and Change in Animals.</li> <li>• Places for Animals.</li> </ul>	<ul style="list-style-type: none"> <li>• List the animals they see in their surroundings (land, air and water).</li> <li>• Recognize that animals that live on land are different in features from those that live in air and water.</li> <li>• Recognize that all animals have young that grow into adults.</li> <li>• Name different animals and their young ones (horse and foal, swan and cygnets, frogs and tadpoles, butterflies and caterpillars).</li> <li>• Identify that some young animals do not look like their parents (frogs and butterflies).</li> <li>• List the animals that feed their young and look after them until they are grown.</li> <li>• Recognize that there is a need for shelter for living things.</li> <li>• Name different places where animals live.</li> </ul>
<p><b>Uses of Earth's Resources</b></p> <ul style="list-style-type: none"> <li>• Need to Use the Resources.</li> <li>• Natural Materials.</li> <li>• Human Made Objects.</li> </ul>	<ul style="list-style-type: none"> <li>• Recognize that human being use the resources of the Earth to meet their needs (land for farming, river/ sea for fishing etc.).</li> <li>• Recognize that people work to earn for living and through their work help each other.</li> <li>• Differentiate between the materials that are found naturally and the objects that are made from these materials by humans.</li> </ul>
<p><b>Agriculture</b></p> <ul style="list-style-type: none"> <li>• Major Crops in Pakistan.</li> <li>• Processing (Making Products).</li> <li>• Animal Rearing in Pakistan.</li> </ul>	<ul style="list-style-type: none"> <li>• List the major crops grown and animals reared in Pakistan.</li> <li>• Recognize that people process the crops they grow for making products (cotton to thread to cloth to garments).</li> <li>• Identify the natural source of common products sold in the market (biscuits made from wheat).</li> </ul>

Themes	Students' Learning Outcomes
<p><b>Construction</b></p> <ul style="list-style-type: none"> <li>• Materials to Construct Buildings.</li> <li>• Usefulness of Materials.</li> <li>• Components of Construction.</li> </ul>	<ul style="list-style-type: none"> <li>• Identify the differences in the ways buildings are constructed in cities and villages (size, area covered, materials used, and style).</li> <li>• Identify the materials and tools used by people to construct buildings.</li> <li>• Identify the properties of the materials that make them useful for construction purposes.</li> <li>• Recognize that materials can change shape when we push or pull them.</li> <li>• Identify famous buildings in the world from given pictures.</li> <li>• Identify the different job/labour needed to construct buildings (masonry, carpentry, painting, plumbing etc.).</li> </ul>
<p><b>Conservation of the Earth's Resources</b></p> <ul style="list-style-type: none"> <li>• Wasting Water and Land.</li> <li>• Problems caused by Wastage of Water and Land.</li> <li>• Ways to Save Water and Land.</li> </ul>	<ul style="list-style-type: none"> <li>• Identify the ways human being waste water.</li> <li>• Identify problems caused by wastage of water.</li> <li>• Suggest ways to save water.</li> <li>• Recognize the importance of forests for them.</li> <li>• Identify the ways in which the land is destroyed due to human activity (deforestation).</li> <li>• Suggest ways to reduce deforestation.</li> </ul>
<p><b>Heat and Light</b></p> <ul style="list-style-type: none"> <li>• Common Sources (natural and Human made).</li> <li>• Uses of Heat and Light.</li> <li>• Methods of Producing Heat.</li> <li>• Intensity of Heat and Light.</li> </ul>	<ul style="list-style-type: none"> <li>• Identify sources of heat and light in their homes, schools and surroundings.</li> <li>• Group sources of light and heat into natural and human made.</li> <li>• Identify and describe methods of producing heat (burning and rubbing).</li> <li>• List the uses of heat and light.</li> <li>• Recognize that the intensity of heat and light is felt more as they come nearer to the source.</li> </ul>

## Appendix 14

Early Childhood Education Standards (selected pages of IL connections)

# Early Learning Developments Standards (ELDS)



Prepared By:  
Projects Wing, Ministry of Education  
In Collaboration With  
UNICEF and UNESCO

Competencies	Sub-Domains
Competency-1: Child will be engaged in conversation with others and talk confidently about matters of immediate and personal interest.	<ul style="list-style-type: none"><li>➤ Listening Skills</li><li>➤ Speaking Skills</li></ul>
Competency-2: Child will describe objects, events and his/her plan for the day.	<ul style="list-style-type: none"><li>➤ Speaking Skills</li></ul>
Competency-3: Child will enjoy listening to stories; poems and make up his/her own stories and rhymes.	<ul style="list-style-type: none"><li>➤ Listening Skills</li><li>➤ Speaking Skills</li></ul>
Competency-4: Child will enjoy books and handle them carefully	<ul style="list-style-type: none"><li>➤ Reading Skills</li></ul>
Competency-5: Child will understand how books are organized.	<ul style="list-style-type: none"><li>➤ Reading Skills</li><li>➤ Writing Skills</li></ul>
Competency-6: Child will recognize familiar words in simple texts.	<ul style="list-style-type: none"><li>➤ Reading Skills</li></ul>
Competency-7: Child will use pictures, symbols, familiar letters and words to communicate meaning, showing awareness of some of the different purposes of writing.	<ul style="list-style-type: none"><li>➤ Speaking Skills</li><li>➤ Reading Skills</li></ul>

Competencies	Sub-Domains
<b>Competency-1:</b> sChild will demonstrate an understanding of the different attributes of objects, such as colour, size, weight and texture, match in sequence and classifying objects based on one or two attributes. He/she will also be engaged in pattern-seeking and pattern-making using different attributes of objects.	<ul style="list-style-type: none"> <li>➤ Conceptual Thinking</li> <li>➤ Logical Thinking</li> </ul>
<b>Competency-2:</b> Child will develop a basic understanding of quantity, counting from 0-9 and simple number operations.	<ul style="list-style-type: none"> <li>➤ Conceptual Thinking</li> <li>➤ Logical Thinking</li> </ul>
<b>Competency-3:</b> Child will recognize basic geometrical shapes and position of objects in relation with each other.	<ul style="list-style-type: none"> <li>➤ Conceptual Thinking</li> <li>➤ Logical Thinking</li> </ul>
<b>Competency-4:</b> Child will develop an understanding of measurement.	<ul style="list-style-type: none"> <li>➤ Conceptual Thinking</li> <li>➤ Logical Thinking</li> </ul>
<b>Competency-5:</b> Child will develop an understanding of the importance of families.	<ul style="list-style-type: none"> <li>➤ Conceptual Thinking</li> <li>➤ Logical Thinking</li> <li>➤ World around Us.</li> </ul>
<b>Competency-6:</b> Child will develop an understanding of the people and places around him/her.	<ul style="list-style-type: none"> <li>➤ Conceptual Thinking</li> <li>➤ Logical Thinking</li> <li>➤ World around Us.</li> </ul>
<b>Competency-7:</b> Child will recognize plants and animals in his/her surrounding areas and explore their basic features and habitats.	<ul style="list-style-type: none"> <li>➤ Conceptual Thinking</li> <li>➤ Logical Thinking</li> <li>➤ World around Us.</li> </ul>
<b>Competency-8:</b> Child will observe the weather and develop an understanding of the seasons and their significance to people.	<ul style="list-style-type: none"> <li>➤ Conceptual Thinking.</li> <li>➤ Logical Thinking.</li> <li>➤ World around Us.</li> </ul>
<b>Competency-9:</b> Child will develop a caring attitude towards the environment.	<ul style="list-style-type: none"> <li>➤ Conceptual Thinking</li> <li>➤ Logical Thinking</li> <li>➤ World around Us.</li> </ul>

<b>Competencies</b>	<b>Sub-Domains</b>
Competency-1 Child will express themselves with colors and drawings.	➤ Visual Art
Competency-2 Child will work with a variety of low cost and waste material to create craft projects of their choice.	➤ Visual Art
Competency-3 Child will experiment with a variety of material to represent their observations and imaginations in the form of models/sculpture.	➤ Visual Art ➤ Dramatic Play
Competency-4 Child will learn the skills of collage work, printing and their use in a variety of ways to create their own art pieces and patterns.	➤ Visual Art
Competency-5 Child will observe, practice and explore various techniques of folding, cutting, tearing and weaving paper to make objects and patterns.	➤ Visual Art
Competency-6 Child will listen to identify and appreciate variety of sounds, patterns, rhythms and rhymes as a form of expression.	➤ Dramatic Play ➤ Sound, Rhythm and Action
Competency-7 Child will participate with confidence in a variety of dramatic play activities to express.	➤ Dramatic Play ➤ Sound, Rhythm and Action

## Appendix 15

**Types of Schools and their Supporters**

<b>Type of Schools</b>	<b>Supporters</b>
Public/State Schools	Government, also with partnership of NGOs
Purely Private schools	Private owners
Private/NGOs schools	Private owners and funded by some government institutions
Trust schools	Trust, Foundations etc.
Missionary schools	Churches
Special Education	Government
Deeni-Madaris	Mosques, Madaris (Religious organizations)
Army School	Pakistan Army
Distance Learning	Government and Private owners
Non-formal basic education	Government