

The Contribution of England's Primary School Libraries to the Development of Students' Information Literacy

by

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CERTIFICATE OF ORIGINALITY

This is to certify that I am responsible for the work submitted in this thesis, that the original work is my own except as specified in acknowledgements or in footnotes, and that neither the thesis nor the original work contained therein has been submitted to this or any other institution for a degree.

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Abstract

This study sets out to determine whether or not a primary school library, managed by a school librarian, makes a contribution to the information literacy development of year 6 students (ages 10-11 years old).

The methodological approach to this research was interpretivist, ethnographic case studies. This is a shift from other studies on school library impact because it employs direct observation of students, and studies each school as a whole, where prior studies have relied on assessment data. This study relied on data collected in the natural environment where children were working to develop rich descriptions of the schools chosen, to be written into detailed case studies.

In order to determine the contribution of the school library to information literacy development, the researcher spent time in three different schools, which had differing levels of library provision. The researcher spent time with a Year 6 (age 10-11 years) class in each school, and observed their information behaviour during a research task assigned by their classroom teacher. In order to streamline the observations, an observation framework was developed. This also ensured that each class in the three schools was observed in the same way. The researcher was immersed in each class for the duration of the class assignment, and walked around during the research lessons and spoke to the children about their research process.

Semi structured interviews were conducted with members of teaching staff and head teachers to gain information about the school, and to determine their attitudes about school library provision, employing a librarian and the instruction of information literacy.

Each school was then written into a case study to provide a rich picture of the school, and of the specific events during the observation sessions with the students. From the case studies, themes about the ways that the students experienced information emerged, and the findings from each school was the basis for the creation of an information literacy framework and recommendations of best practice found in each of the three schools.

The investigation highlighted the important contribution that a well-managed school library made to the development of students' information literacy.

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Abbreviations

CILIP – Chartered Institute of Library and Information Professionals

IFLA – International Federation of Library Associations

ALA – American Library Association

IL – Information Literacy

SLA – School Library Association

SLS – Schools Library Service

SLN – School Librarians Network

LIS – Library and Information Service

ASCEL – Association of Senior Children's and Education Libraries

SCONUL – Society of College, National and University Libraries

KS2 – Key Stage 2

Keywords

Information Literacy

Primary School Libraries

Case studies

Naturalism

Information behaviour

School Librarians

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Chapter 1 Introduction

1.1 Scope

The government's awareness of the state of literacy in the United Kingdom has given librarians the opportunity to raise the profile of school libraries and provide evidence to suggest their roles in supporting students, especially in the area of information literacy, which, according to Bruce (1997), has been known to be a critical literacy for the 21st century. Some researchers perceive information literacy as a natural extension of the concept of literacy in our society (Zhang, Majid and Foo 2010, p. 720). People who have limited knowledge about information and knowledge acquisition argue that school libraries are no longer necessary in a society where information can be found because students are so dependent on finding information via the internet and other resources, however, they need to be taught to locate and evaluate information in order to use it efficiently and effectively. Trained, professional librarians are skilled in this area, but a lack of professional recognition and standard qualification requirements devalue the librarians' role in a school (Sacco Ritchie 2011).

Much of the research surrounding information literacy focuses on secondary and higher education. Research by Rowlands et al (2008) finds that information literacy intervention at university age is too late; these students have already developed an ingrained coping behaviour and have learned to rely on Google for all their information needs. (p. 303). If students are given information literacy instruction from primary school, it may provide a foundation that students can build on as they progress through the educational system. Smalley (2004) states that "to be effective, experience with information literacy strategies needs to be part of the entire educational experience. School librarians and school library programmes are key educational components" (p.197).

The All Party Parliamentary Group published a report in 2014, promoting the use of school libraries in order to improve student achievement across several areas of learning, including information literacy. They state that "Librarians are contributing to essential information literacy work in the school. Librarians contribute to cultivating lifelong learning by providing pupils with a diverse range of information resources, motivating independent inquiry, and promoting critical and creative reading and thinking (p. 20).

The government's stance is that schools should be able to choose whether or not their funding goes to providing school library services, rather than making school libraries a statutory requirement. A spokesperson for the Department for Education stated that "we want children to have the opportunity to read widely. School libraries play a role in this and schools are responsible for deciding how to provide this service for their pupils" (Wallwork 2016).

International research into school libraries (Lance et al 1993, 2000) and (Softlink International 2011), illustrates that there is a positive relationship between school library provision and student academic achievement. This study will focus on the relationship between English primary school library provision and student information literacy skills acquisition.

This study set out to examine how a primary school library contributes to the development of information literacy (IL) skill in primary students. Three primary schools with differing levels of library provision were investigated by the observation of 10 and 11 year old Year 6 students engaged in a research task set by the classroom teacher. The observations were conducted in the classroom settings in which the children normally worked.

Year 6 students are in their last year at primary school, and they were chosen as the target age group to investigate whether having information literacy (IL) instruction from the start of primary school (at age 4) made the students more information literate by the time they reach year 6, and able to effectively complete research tasks. Also, year 6 students are due to enter the secondary school system, where the ability to apply information literacy (IL) skills becomes more important because they are expected to be able to independently find information to complete assignments.

This research was conducted in England only because school library provision is not statutory in England, and the researcher was initially interested in how the lack of library provision affected students academically. There is a lack of research focused on the primary school library's role in information literacy skills development. As Secker, Boden and Price (2007) stated, information literacy "is probably more developed among the library profession in higher education (HE) than in other sectors" (p.1123). The time allotted for this study did not allow for other countries in the UK to be included, but that could be a topic for a future school library study.

Much of the research surrounding information literacy in the UK focuses on secondary and HE, however, research by Rowlands et al (2008) finds that "information literacy intervention at university age is too late; these students have already developed an ingrained coping behaviour and have learned to rely on Google for all their information needs" (p. 303). If students are given information literacy instruction from primary school, it will provide a foundation that students can build on as they progress through the educational system. Smalley (2004) states that "to be effective, experience with information literacy strategies needs to be part of the entire educational experience. School librarians and school library programmes are key educational components" (p.197). A study completed by Streatfield, Shaper and Rae-Scott in 2010 included primary schools, however, the research team used data collected from testing data and school staff interviews but no student interviews or observations were conducted.

Large scale library research studies have been carried out in the United States, but those studies have focused primarily on quantitative studies which measure library impact with student test scores (Lance, et al. 1993, 2000). The findings of these studies reveal that school library provision in primary and secondary schools positively impact student achievement. Large scale studies in the UK have focused primarily on whether or not schools are providing library services, but are not addressing the school library's role in student achievement. It is acknowledged that the educational systems in the US and the UK differ; 40 US states require librarians to have both teacher and librarian qualifications, and school libraries are statutory in US schools, while the UK has no standard qualification requirement for school librarians and libraries are recommended, but not mandatory in primary or secondary schools.

This research study was designed to include observations of students actively using resources to find information for a teacher directed assignment. The methodological approach was carefully considered based on previous school library research studies which are included in the literature review, and also so that the combination of student observation, staff interviews and school data were all collected and processed effectively. The next section will introduce the evolution of the chosen methodology.

1.2 Methodology

A primary school library, managed by a qualified librarian would have some positive impact on the information literacy skills of the students, however, the 'how' and 'why' of the library's contribution needed to emerge from the data collected from each of the selected schools. The research approach had to be shaped around this view to get the most balanced outcome, but also needed to reduce any bias the researcher had when entering the field. The interpretivist paradigm was chosen over positivist; a positivist paradigm tests existing theories, but interpretivism, also called naturalism, looks at generating theory from the data.

The researcher was investigating the concept that those students who had library provision, managed by a school librarian at primary school would have better information literacy skills than those students who had little to no library provision. Observation of the students engaged in an information seeking task, and talking with them about the work that they were undertaking in order to analyse how they were able to use information to complete the task required of them. Using ethnographic case studies was the most appropriate strategy to meet this outcome because the use of case studies allowed the researcher to collect data by direct observation of the students, and through spending time in each of the schools chosen for the study. Furthermore, creating case studies served to construct an understanding of the factors that can influence IL and report best practices of the schools who are teaching IL effectively. Yin (1989) states that case studies are an effective strategy "when 'how' or 'why' questions are being posed, when the investigator has little control over the events, and when the focus is on a contemporary phenomenon with some real life context" (p. 13).

In order to gather relevant data about students and their process of research, it was necessary for the researcher to be as immersed as possible with the class while they were working, and that the students work as they normally would in class, so that the observations were as natural to them as possible. Interpretivism proposes that “as far as possible, the social world should be studied in its ‘natural state’, undisturbed by the researcher (Gubrium and Holstein 1997, p. 34). The students were assigned a task by the teacher and the researcher acted as a participant observer, talking with the students and observing their process as they worked.

Semi-structured interviews were also conducted with teachers and senior management staff in each of the three schools selected for the study. The interview questions emerged from information gathered about all three schools, and during the student observation periods, however, the questions were kept similar across all three schools in order to maintain validity and equal treatment across all three schools. Keeping the interviews semi-structured also allowed for spontaneous dialogue to take place, so that maximum information could be received from each respondent.

1.3 Literature

Extensive literature searches were completed to determine where this study sits in a body of research completed about school libraries, information literacy and the role that school libraries play in the development of information literacy. Government publications on literacy helped to inform on the government stance on school libraries, while professional organisations provided publications that advocated the provision of libraries in schools and the employment of professionally qualified school librarians. Organisational publications also encouraged schools to support their local School Library Services (SLS). Academic papers that presented research carried out on the school library’s role on student academic success, as well as the role of qualified school librarians and how they contribute to the overall success of students were useful to determine how others conducted school library research, and what their findings revealed. Research on school libraries carried out in the United States was important because several, extensive studies on various facets of student success have been carried out in the US since the 1990s. An annual study of school libraries and how it impacts student achievement in Australia was an important publication that provided evidence on school library provision on national test scores. Many of the studies carried out in the UK have been focused on the secondary and higher education (HE) sectors, because those sectors are more likely to provide dedicated library space, and employ professional librarians.

It was essential to read pedagogical theories when developing models for information literacy instruction. It was thought by the researcher that using an educational design, rather than a Library and Information Service (LIS) design, would be a way for teachers to engage with a possible curriculum for information literacy, and a way to invite collaboration between teachers and school library professionals. Since the researcher was also a qualified teacher, it was knowledge of teaching

and learning that led to the decision to make a library based framework accessible to teachers, therefore making it more adaptable for a school who chooses not to employ a librarian.

1.4 Aim and objectives

The aim of this research is to investigate the contribution primary school library provision in England makes to the development of Year 6 (age 10-11) students' information literacy skills. In order to meet the aim, the following objectives were developed:

- Objective 1: To explore how information literacy instruction is implemented in schools selected for the study;
- Objective 2: To determine whether or not a school librarian contributes to IL development at primary level;
- Objective 3: To observe student IL skills during the completion of a class assignment in three schools;
- Objective 4: To examine findings from other school library research to determine if positive outcomes were achieved as a result of a school's library provision;
- Objective 5: To develop a model visualising key relationships between school library provision and IL skills development;
- Objective 6: To develop a framework to support teaching information literacy at primary level;
- Objective 7: To create a list of recommendations for IL instruction based on the findings from the schools participating in the research.

England does not have an official IL framework to guide teachers how to teach the skills needed to be information literate, which means IL instruction is variable in every school. The lack of a concrete IL framework also means that any instruction is based on the IL knowledge held by the instructors, which again, means teaching will vary from school to school. It was also important to ask questions in each school, of both teachers and senior management what their attitudes were about the teaching of IL skills. The answers to those questions provided insight into the importance of IL skills to school staff, and if those answers would differ based on the level of library service provided.

Studies in the United States and Australia provide evidence to suggest that having a qualified librarian employed in a school library, raises student achievement on standardised tests. This study sets out to discover the contribution a librarian makes to students information literacy in England, and how the librarian contributes to IL development. How does the presence of a professional librarian make a difference to the students in a school?

This study used direct observation of students during a class assignment to assess their information literacy skills, which is a move away from school library studies that focused on test data.

Reading other studies in the UK, and other selected countries assisted in determining the methodology for this study, but also to investigate where this study sits within a body of established research. Additionally, it was necessary to explore best practices of school libraries that support the increase in student achievement levels, to determine what best practice could look like if primary schools in England employed similar strategies.

A model (Figure 2, p. 125) illustrates how a school library supports information literacy. Table 6 (p. 152) is a framework of learning objective for IL, based on pedagogical theory. This is important because it is likely that primary schools will not have specialised librarians employed, the framework must be written so that teachers are able to use it easily. In addition, information literacy objectives must be able to work effectively across different subject areas.

Recommendations are based on the findings from all three schools, where the best practices for developing information literacy skills emerged during the observations.

1.5 Definitions important to the study

The following are definitions of the two elements that this study focused on.

School Library: The term ‘school library’ is prevalent throughout this study, and the definition can vary depending on the school that is providing a library. For the purpose of this research, a school library is defined as dedicated space where resources are provided. These resources could include books and other printed media, computers (with internet access) or tablet technology. Some schools lack the physical space to provide one area containing resources, so they have chosen to decentralise their libraries into the classrooms, where the teacher is responsible to manage the print resources. Two of the schools observed in the study had dedicated library spaces; only School B had to decentralise into classrooms because they lacked the space for a central school library.

Information Literacy: The term information literacy can cause confusion, and some of the respondents in this study mistook information literacy as being only relevant to research or library skills. According to Eisenberg, et al (2004), information literacy is to “possess the ability to recognise the need for information and be able to locate, access, evaluate and organise this information for practical application.”

A more recent definition of information literacy was offered by Jane Secker and Emma Coonan, who updated a higher education information literacy framework in 2013. They define information literate people as: “discerning in their choice of information sources and their use of knowledge. They are judicious citizens who can use information to transform their circumstances, create new knowledge and reach their full potential” (Secker and Coonan 2013).

These two definitions reach beyond CILIP's definition of information literacy, which states that "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" (2004), because they take into account the impact that being information literate has on personal growth for individuals, and how information literate people are better able to contribute thoughtfully and knowledgeably to society

1.6 Summary

This introduction provides a brief overview of the research study. It provides the reader with background information about how the aim and objectives emerged, the methodology chosen, and how published literature informed the study. Also, the reader has clear definitions about the two areas of study: school libraries and information literacy.

Chapter 2 Literature Review

2.1 Introduction

A literature review was conducted in order to determine where this research sits within the body of published research related to school library provision and information literacy. It has been noted that much of the published literature focuses on secondary and academic libraries, especially in England. This was one of the reasons that primary schools were chosen for this study; it was desired to get some further understanding and insight into how students at primary level used their school library which was not provided by the literature. It is important to include a brief history of school library provision in England to provide background and context into the attitude and importance of school library provision in primary schools.

Information literacy is also discussed in this chapter. Again, much of the published work focuses on secondary and higher education. One of the challenges about determining the instruction of information literacy is the lack of standard definition of what makes a person information literate; Section 1.14 will discuss this in further detail. There is no information literacy framework in England for primary level students, however, there are models in the United States that will be discussed in Section 1.15. Additionally, suggested objectives for primary level information literacy will be provided in chapter 5, these objectives were developed as a result of the findings from the studies within the schools studied.

2.2 Background and Context

The Importance of Teaching-Schools White Paper 2010 (Department for Education, 2010) identified the need for schools to raise literacy levels, particularly among primary school students. According to the report, “one in five 11 year olds still leave primary school struggling to read and write at the standard expected of them. This figure is much higher for deprived pupils-more than one in three” (Department for Education 2010, p.43). Additionally, the report stated that children who reach level 4 at primary school are “much more likely to achieve well at GCSE” (Department for Education 2010, p.43). Though the report emphasises the need for literacy to improve, and gives some suggestions for ways to accomplish this, providing schools with a library was not mentioned among the suggestions. In fact, there was no mention of library use to support learning contained within the report. There are several sections of the report that outline the government’s wish to give schools the financial autonomy to buy into which ever services they determine to be the most beneficial to their students. Many head teachers may not be aware of the international research that links school libraries with higher achievement (Wilson and Blake 1993), so library services may be regarded as an expense, rather than an investment (Hartzell 2002).

School librarians in England have been advocating for school libraries to become statutory requirements in Secondary Schools; according to the CILIP website:

While recent media focus has been on the closure of public libraries, ASCEL, CILIP and the SLA are asking people to lend their voices to a major new campaign to lead the fight to ensure children and young people across the country have access to proper library resources whether on-site, as part of a cluster of schools or through local authorities' school library services. (CILIP 2010.)

The first two Colorado studies completed in the USA by Lance, et al (1993; 2000) included both primary and secondary aged students, but little research has been done to investigate the provision of school libraries specifically for primary schools in the UK; a larger body of the research is directed at secondary level. The current lack of development in primary school libraries may have some grounding in the many ways that primary education has changed through the decades.

This study will add to a recent emerging body of research about school libraries being conducted in the UK since 2010. Streatfield, Shaper and Rae-Scott (2010) and Streatfield, Shaper, Rae-Scott and Markless (2011) conducted two studies in the UK to determine the current state of school library provision, and how information literacy is being taught. These national surveys were conducted between December 2009 and April 2010. Since the report does not specify individual countries, it is assumed that surveys were sent to all schools in the whole of the UK. The work with primary schools involved "a baseline e-survey of primary school libraries focused on describing the library and its resources" (Streatfield, Shaper and Rae-Scott 2010, p. 3). 651 primary schools replied to this survey, which represents 3.04% of all primary schools in the UK. Response rate was low because relatively few primary school libraries employ a qualified librarian and a number of Schools Library Services (SLSs) do not offer services to primary schools, so "obtaining responses was difficult" (p. 23). "Questions focused on baseline information about the library, rather than about the library staff, since respondents were more likely to be teachers or volunteers" (p. 68). "Opening hours, size of school book stock, book stock related to the number of students on roll and library budget were obtained from each of the respondent schools" (pp. 69-71). The baseline information from Streatfield, Shaper and Rae-Scott will also comprise part of the data collection for this study; however, the information will be used to complete a case study about each of the schools selected.

In 2011, Streatfield, Shaper, Markless and Rae-Scott published *Information literacy in United Kingdom Schools: evolution, current state and prospects*, which reviewed the "evolution of information skills and information literacy work and associated research in UK schools over the past 30 years as reflected in the literature" (Streatfield et. al., 2011 p. 5). They conducted semi structured telephone interviews with primary school head teachers (8) or their nominees (2). "Three structured focus groups were held with the help of the SLSs in Portsmouth, Hertfordshire and Leicester, involving a total of 45 teachers with library responsibility and library assistants, supported by 8 SLS

staff” (p. 9). In their study of primary schools in Portsmouth, Hertfordshire and Leicester, Streatfield et al found that there is “relatively little attention paid to systematic IL development in primary schools” (Streatfield, et. al. 2011, p.9). “This is partly as a result of a lack of specialist librarians employed in primary schools, which is not an affordable option for many primary schools” (Streatfield et al 2011, p. 9).

All respondents to the interviews that Streatfield and his team conducted agreed that “school libraries offer a way into the world of information that should become more important as children go in through secondary and higher education” (Streatfield et.al. 2011, p. 12). The respondents felt that teachers may not be clear on how to use the school library to develop these skills, and the books and resources are not adequate to support the students’ work on projects and assignments (Streatfield et.al. 2011). Resource provision may get worse: a 2010 survey of 651 primary schools in the UK by Streatfield, Shaper and Rae-Scott showed that “most primary school budgets are declining, with almost half the library budgets for stock and resources stuck at last year’s level; and almost a third being cut, some from a very low base” (p. 12).

The School Library Association Survey (School Library Association 2012) reports the key entitlements that a school library can fulfil for children and young people, including:

- A skilled trained library practitioner with responsibility and time to help children and young people develop the skills needed to manage today’s information world, to become lifelong learners and to meet the future job market’s need for problem-solvers and independent thinkers;
- A safe and secure environment for learning during outside school hours with resources and advice freely available;
- High quality, wide-ranging library and classroom resources to support the curriculum, organised to provide easy access;
- The chance for children to be valued as individuals through access to reading materials which are tailored to support their emotional, cultural, leisure and wider needs, with help from a knowledgeable professional.

Realistically, these goals are not attainable for school libraries with limited budgets to invest in library programmes. Booktrust’s 2007 survey of school library spending (Creaser and Travis 2008) recommended spending £10 per pupil per academic year on library books in primary schools, £14 in secondary schools. The research found that 61% of primary schools and 92% of secondary schools reported a total library spend below these figures (School Library Association 2012).

In Scotland, Williams and Wavell (2001) have undertaken research into the impact of school libraries on achievement at the secondary school level. The study looked at the contribution of the school library to student learning in the four areas of motivation, progression, independence and interaction, which can be difficult to assess, because standardised tests cannot measure these elements of learning. The study did not attempt to isolate the impact on learning of the school library from other variables affecting learning, but sought to monitor the learning experiences within the school's library of the selected schools over a short period of time, seeing the process of monitoring impact as important as the evidence of actual impact. The study found evidence to support the view that school libraries can contribute to the development of a variety of information skills in students, encourage the 'disposition' of students towards social and individual responsibility and enhance the learning opportunities for those who already have the skills to become independent learners.

In 2012, Lucy Gildersleeves, a lecturer in the Department for Information Studies, University College of London carried out the pilot phase of a study which aims to investigate whether there are key contributions made by secondary school library provision in the four home countries of the United Kingdom. Gildersleeves' research will build on the extensive school library impact studies from the USA, and it will aim to identify whether there are contributions made by the secondary school library, and she will use these contributions to inform school library practice. The two year study will use a mixed methods approach which will include online student surveys, interviews with members of staff and focus groups of school pupils.

Gildersleeves did note that her findings from the pilot phase tend to "support the hypotheses that a correlation may be traced between good library provision and positive pupil engagement with reading and information skills." (p.403) another key issue identified from this study was that teachers and students found it difficult to articulate "how they experience the differences that libraries and librarians contribute." (p.403)

Gildersleeves' study is significant because it contributes further to the UK body of research on school libraries and their impact on student achievement. There are gaps in the research on school library impact in the UK, and with the demand on students to think critically and independently, it is a crucial area of study. This study is also limited to finding out how libraries contribute to information literacy only, but the findings from Gildersleeves' study in her secondary library research may offer the potential for a further investigation of the school library's impact on achievement in primary schools.

In 2015, Softlink Europe Ltd, a worldwide provider of Library Management Systems, conducted the first UK wide annual school library survey. The survey results "outline the initial key trends and issues facing UK school libraries" (p. 1). Softlink did not indicate the number of schools they contacted to be involved in the survey, however, 907 schools responded, and the largest responders

were state schools. Softlink also did not specify whether the schools who responded were primary or secondary schools. Key findings from the 2015 UK School Library Survey are as follows:

- “54% of schools feel their library is not adequately funded;
- 36% of schools receive £5000 or more for their library budget;
- 42% of schools receive £3000 or less for their budget of which the highest number of these are state and academy schools;
- 52% of schools library budget has not changed from previous years;
- 68% of school libraries have experienced no change in staffing levels from previous years;
- One third of UK school library staff work term time only;
- Teaching staff interaction with the library is one of the top challenges for librarians. Other highlighted challenges include reduced physical space for the library and competing with other school activities;
- The top priority for school libraries in 2015 is to raise the profile of the school library;
- Implementing eBooks and using online resources is a growing requirement for school libraries”. (p.5).

Softlink intends to carry out this survey annually, in order to track school library trends over a number of years.

In March 2016, The Association of Teachers and Lecturers (ATL), the education union, also conducted a survey of school libraries in the UK. Again, they did not provide specific information about how many schools they surveyed, or where their specific results came from. The responses came from 485 members working in state-funded schools in England, Wales, Northern Ireland and Scotland. They did not specify whether they were primary or secondary, however, there were responses from primary school teachers included in the report. The results of the study, show that “40% of the 485 school staff who responded said their school library does not have enough space for the number of students who want to use it, with 16% saying library space has been cut since 2010. 61% said their school library lacks enough computers or laptops for all the students who want to use them.” (p.1)

Other key findings from the report include:

- 80% of staff said the library is important to the school;
- 94% of staff said school libraries have a positive impact on teaching and learning;
- 22% said their school library budget has been cut by at least 40% since 2010;
- 21% said that the budget does not allow their library to encourage students to read for enjoyment;

- 23% of staff said a teacher or member of support staff looks after the library, while 9% said no one looks after it;
- 27% of staff said their school librarian is part time;
- 18% said that their library does not operate for the full school day (p.2).

Both studies illustrate the inconsistency of school library provision in the UK, however, they do also indicate that there is an awareness that further research needs to be conducted into school library provision in the UK.

2.3 History of School Library Provision in England

The first libraries in primary schools were established by public libraries, because the public libraries recognised that ‘reading habits are best formed in schools’. (School Library Association 1966, p.19) The provision of school libraries in secondary schools became statutory in 1944, “when the Ministry of Education issued Building Regulations requiring the provision of a library room in all newly built secondary schools” (School Library Association 1966, p. 18). Providing each secondary school with a library room meant that there was little finance to do the same for the primary schools, so it was the public library that filled in the gap. During the late 1920s and 1930s, “many children’s libraries began to appreciate the publications targeted toward children, which was reflected in the stock that was chosen. In addition, extension activities such as author talks, storytellers and reading circles were expanded by librarians and became popular with the public”(Elkin and Lonsdale 1996, p. 43). Unfortunately, “while the motives of the public libraries in coming to the help of schools were wholly admirable, no supply of books coming from outside could take the place of sufficient funds to enable the schools to build up their own collections of books” (School Library Association 1966, p.19).

The end of the Second World War brought a period of new educational initiatives. The 1944 Education Act (Dent 1968) “led to a marked improvement in educational standards and afforded a considerable stimulus for improved library services to children in schools and public libraries” (Elkin and Lonsdale 1996, p.43). The flourishing economy led to “a renewed growth in children’s publishing and there was a greater awareness of the need for selection policies” (Elkin and Lonsdale 1996, p. 43). For all these significant improvements, the children’s library movements grew slowly, and school libraries in primary schools were not mentioned as a possible alternative or addition to the public libraries efforts.

In 1967, the Plowden Report (Great Britain. Department of Education and Science, Plowden, B.H.P.) recommended that “especially for younger children, collections of books and illustrations should be housed mainly in the rooms or adjacent to the rooms where children are normally working. There must be a central collection as well, since some books, illustrations and maps are too expensive to be duplicated.” Though this statement acknowledges the importance of book access for primary aged

pupils, there is little evidence to suggest that primary school libraries flourished after this report was issued.

In the 1970s, information literacy skills were emerging and considered to be important to lifelong learning (Bruce 1997) however, they were often packaged as library skills (or bibliographic skills in the US). The ability to find and use information from books and periodicals was the basic skill needed to participate in an information economy, but the emergence of computer technology in schools in the 1980s meant that there was a need for students to have a different kind of knowledge that extended beyond books and periodicals. Librarians have been heavily engaged in information literacy instruction since the 1980s but as Secker, Boden and Price (2007) noted, this practice has been concentrated within academia. Our basic concept of information literacy has been developed mainly by academic librarians working within universities. This may be the reason that information literacy instruction is emphasised at secondary level and not primary level.

The Education Reform Act of 1988 (Great Britain. Department of Education) introduced a number of changes to school management in England. The local management of the schools system meant that considerable financial responsibility shifted from local education authorities (LEAs) to schools, and resulted in schools having greater responsibility in the spending of their budgets both in terms of the allocation to different items and in the choice of supplier (Heeks 1992). “From this point on, all significant decisions affecting state schools would be taken by the school governors and senior managers, including decisions about school library expenditure” (Streatfield, Shaper, Markless and Rae-Scott 2011, p.7). Individual schools are now able to spend their finances to target the needs of their specific populations, but that responsibility has meant that the government does not require schools to spend budgets on any support services, including school libraries. This government restructure also changed the position of Schools’ Library Services, which were the main support for school libraries; they were subject to the same market style buy in as every other service offered to schools, so could actually be opted out of a school’s budget.

The Reform Acts also contained centralising measures, which gave strength to the Department of Education and the Secretary of State, and decentralizing measures which introduced new responsibilities given to governors for policy formation and head teachers for local management (Pollard 1996). This contradiction was justified by the development of a National Framework - a structure of safeguards and controls-within which there could be high levels of autonomy at school levels (Pollard 1996). Although there are benefits from an educational standpoint to giving localised control of schools to the people who are managing the schools directly, the danger for libraries is perception; if head teachers and governors are not aware of the benefit of providing students with a school library, it is likely to be seen as an unwanted or unnecessary expense, instead of a valuable academic resource.

2.4 The Development of School Libraries

Literacy has been the centre of attention in the media since findings of a decrease in the literacy skills of students in England was publicised after the PISA Study in 2009 (Department for Education).

Though the government has emphasised the teaching of literacy in order to raise these scores, school library provision is not mentioned as a possible way to support and raise the literacy of students. Less attention is given to the school library provision from early primary school age as a way to find and use information.

The focus in primary school is teaching children to read, however, in addition to learning the fundamentals of how to read, children also need exposure to appropriate age level books that they have the ability to choose. “Children’s development of literacy grows out of their experiences, and the views and attitudes toward literacy that they encounter as they interact with social groups” (Goodman 2001, p. 317). This may suggest that if students are not encouraged to use the library at an early stage in their education, it will not become part of their experience, making it more difficult for secondary educators to show students the value in their school library. Additionally, “children develop both reading and writing skills as they participate in meaningful events” (Goodman 2001, p. 319). Reader development, implemented by qualified librarians, as well as an overall value of school libraries by all members of staff are meaningful events that could assist in student reader development as well as in the acquisition of research skills. “School is an important setting for literacy learning. There, the learning of literacy skills can be an exciting and stimulating experience; however, it can also be discouraging and inhibiting. Teaching children literacy through functional use has been advocated for more than 80 years” (Goodman 2001, p. 324). When school libraries are managed by a dedicated library manager who can ensure that there is plenty of age appropriate reading materials, librarians have opportunities to promote reading for pleasure, in a supportive environment. If libraries are open, welcoming places, then students are more likely to embrace a librarian who is guiding their literacy along with a team of teaching staff.

Harris (2003) noted in her research that the research provided evidence that supports several important findings:

- “Professionally trained librarians make a difference that affects student achievements on standardized tests;
- That teachers and principals in support of media specialists are vital to make that difference;
- That librarians teach both students and faculty;
- Librarians must be deeply involved in technology to maintain their effectiveness in the school” (p. 220).

Williams and Coles (2007) stated that “while school librarians can provide guidance for accessing and evaluating information, it is teachers who are more directly involved with setting the activities and tasks in which learners apply information to develop their knowledge” (p.200). This speaks to the status of librarians in schools; that because they are not qualified teachers, teachers may not feel comfortable about a librarian teaching subjects they are responsible for, especially because test scores are so closely tied to the ability of the teachers, putting pressure on them to control the instruction of their students.

“One of the most consistent findings across impact studies performed in the United States is the relationship between library staffing and student achievement.” (Chan 2008, p.3). Research by Kuhlthau, Maniotes and Caspari (2007) indicates that a librarian working in collaboration with teaching staff is a successful way to teach information literacy skills and embed those skills into the curriculum so that the students can use the skills across subject areas.

Although evidence from international studies supports the argument that school libraries raise achievement (Lance et al 1993, 2000), governmental agencies in England are unwilling to make school library provision statutory because they have given schools financial control and the powers to make their own decisions about how their funds are spent. Ofsted inspections will sometimes comment on the school library provision as part of their inspections of further resources that a school may provide, but there is no specific evaluation of libraries in Ofsted inspection reports.

In the new Framework for Inspection, which was implemented in 2012, there is mention of the positive support that a library and librarian can offer: “the adequacy and suitability of specialist learning equipment, learning resources and accommodation. Learning resources, in particular, may be deemed to include the materials provided by the library and, in fact, the library itself.” (Ofsted 2012) but there is no evidence in this new Framework to suggest a lack of library provision will devalue a school’s overall score. In 2014, the All Party Parliamentary Group on Libraries issued a report that emphasised the provision of libraries and a professional librarian in secondary schools. This report urged OFSTED inspectors to rate school library provision in their inspections.

The *International Federation of Library Associations and Institutions (IFLA) World Report* from 2010 states that “there are 4,033 school libraries in total in the whole of the UK. The figure of 4,033 is made up of the number of (grant-maintained) secondary schools in England, Wales, Scotland and Northern Ireland.” There is no other information given in the IFLA report about these libraries. Though this statistic may illustrate the extent to which school library provision exists in the UK as a whole, there are no details about what kind of services these libraries provide. There could be centralized collections contained in a traditional space, or resource collections could vary from books contained in individual classrooms, to collections of books in a hallway or store cupboard. Additionally, this statistic does not give any indication whether these libraries are associated with

secondary or primary schools; there has in the past been a greater emphasis on libraries contained in secondary school, so it may be inferred from that information that the majority of school libraries are housed in secondary schools. The vague definition of what constitutes a school library meant that even contact with local authorities did not give a full picture of library provision; if schools have books that students are able to access, then the school may consider that a library service, even if they do not have a dedicated library space. The School Library Association could not confirm how many primary schools provided library services. Additionally, two SLS were asked for estimates on how many schools provided libraries, but they could not confirm numbers because they could only comment on the schools that subscribed to their services.

2.5 The Role of Schools' Library Services

Prior to the Education Reform Act of 1988 (Great Britain. Department for Education), the role of the Schools' Library Service (SLS) was to be the liaison between public libraries and schools. It gave schools the opportunities to borrow resources to support their curriculums, and if they offered library provision in their schools, SLS provided support and advice to those libraries to maintain or improve provision. Primary schools do not often have a librarian to acquire stock or manage the library space, so the responsibility falls to the local SLS, if there is one provided, to assist schools in providing a library service. With a subscription to SLS, at least schools can take advantage of termly or yearly loans so that students have a collection of resources from which they can borrow. The problem is that many schools regard recreational reading as the most important function of the school library. However, as noted by Heeks (1992) "recreational reading can never and should never be the mainstay of a school library; its core purpose must be the advancement of learning through support of the curriculum" (p.2). Schools Library Services are aware of the importance of information literacy; when the researcher visited the SLSs in two counties, it was reported that both county SLSs have developed instructional materials and training opportunities for use by teachers in schools, however, interest in these resources has been low.

One noteworthy finding in a 2010 study of school libraries in the UK (Streatfield, Shaper and Rae-Scott), was that an available SLS makes a positive difference, "not only to the availability of books and other resources for loan, but in helping unqualified school librarians to extend what they can do and in supporting school promotion of reading for pleasure" (p. 73).

According to the School Library Association, there are 104 Schools Library Services in operation in England, which service the 150 English local authorities responsible for education. Gillian Harris, Chair of ASCEL (no date) wrote, "Teachers need a wide range of stimulating, up-to-date and relevant learning resources to deliver an exciting and vibrant curriculum. Schools Library Services are an amazing cost-effective way for schools to make sure children of all abilities have the best quality materials in the classroom to inspire their learning. Add to this the professional support, advice and

books Schools Library Services can provide to those wanting to build a reading culture and an excellent library, then they should be at the top of every school's list to buy in."

In spite of the campaign to invite more schools to buy into the service, budget constraints meant that schools in some local authorities opted out of Schools Library Services. Lack of subscriptions has meant closure of the services in a short space of time. In 2010, local authorities in Gateshead, Cambridgeshire and Sutton made the decision to terminate their School Library Services. Birmingham School library services followed in 2011. Greenwich, which had been suspended in 2009, confirmed that they would not reopen, and the service was closed in 2011. Hertfordshire, which had a valued School Library Service, was closed in March 2012. More recent closures include Bradford (2012), Bristol (2014), Falkirk, and North Yorkshire (2015). The loss of these services will leave some of the primary schools in those regions with no access to library services in schools. Schools Library Services were able to offer those schools without dedicated library spaces an avenue to have resources available for students.

2.6 'Good' School Libraries

School libraries need to meet certain criteria in order for them to impact student achievement. The use of 'effective' or 'successful' in this research indicates school libraries that have the attributes set out in the following guidelines developed by CILIP (2010, p. 7)

"A good school library should

- enrich pupils' reading experiences and develop pupils' skills as independent learners;
- provide resources and information that teachers and pupils need;
- support the teaching and learning process, and extend the school's curriculum;
- have skilled, enthusiastic staff with time allocated for library duties;
- have up-to-date, attractive and suitable resources in a range of media;
- be adequately funded to ensure continuing maintenance and development;
- be planned and designed to be pleasant and stimulating environments;
- be monitored regularly to assess their use;
- be guided by a whole school policy for the library;
- make good use of the expertise and stock of a Schools Library Service, and develop ongoing links with the local public library."

These guidelines are meant to be a way to advocate for school libraries by CILIP, who are the professional librarianship authority in the UK. Though the definitions of what makes a ‘good’ school library demonstrate similar elements across different professional organisations, this list is generic in scope. They are not educationally measurable objectives, do not include any evidence based practice, which could illustrate the academic impact of the library on the students, and do not emphasise the use of a qualified library professional like professional organisations elsewhere. For instance, in policy statements by the American Library Association, International Federations of Library Associations and Institutions and the International Association of School Libraries, there is emphasis on a librarian who is professionally qualified. The IFLA/UNESCO School Library Manifesto (2006) describes the school librarian as the “professionally qualified staff member responsible for planning and managing the school library, supported by as adequate staffing as possible” (p.3). General areas of knowledge that are important if school librarians are to develop and operate effective school library services are: resource, library and information management and teaching. The American Library Association position statement on the role of the school library program (2012) adds that the school librarian “provides leadership in the use of information technologies and instruction for both students and staff in how to use them constructively, ethically and safely” (p.1). Additionally, the school librarian is expected to participate fully in all aspects of the school’s instructional programs “including federally mandated programs and reform efforts” (p.1). In *the Outline of Guidelines for School Libraries which is a section in Empowering Learners: guidelines for school library programs* (2009) the American Association of School Librarians (AASL) also suggests a minimum of “one full-time certified/licensed school librarian supported by qualified support staff sufficient for the school’s instructional programs, services, facilities, size and numbers of teachers and students” (p.1). The International Association of School Librarians (IASL) *Policy Statement on School Libraries* (2003) advocates that “school librarians be qualified teachers who have, in addition, completed professional studies in librarianship” (p. 2). This ensures that librarians have the appropriate skills to manage the library effectively, but also that they have the educational background which will give them an understanding of how to frame librarianship around the vision and strategies of the school and make them collaborative partners in the education process. There is currently no requirement in England for school librarians to have library qualifications, but the research undertaken in North America (Lance et al 1993, 2000) provides evidence that there is a significant positive relationship between having a qualified librarian and student achievement.

2.7 Research on School Libraries

After examining several studies on how school libraries contribute positively to student achievement, the following studies were identified as having relevant support for this study. The Colorado studies by Keith Curry Lance (1993, 2000), The Pennsylvania study, which included the contribution of the school library to IL skills development, Softlink Australia’s annual survey of school libraries, and a

2014 study completed in Jamaica that did not address the school library's role in student achievement, but assessed grade 6 students IL skills.

2.7.1 Research from the United States

There has been considerable school library research conducted in the USA, and more limited research from other countries, which will be discussed below.

In the United States, Keith Curry Lance developed a methodological approach in 1993 (revised in 2000) to examine the effect of school libraries on student academic achievement. Using student performance on standardised tests as a means of measuring student achievement, Lance successfully correlated surveys of school library provision, including library staffing, hours of availability, resource provision, and programmes of activity with overall student performance on standardised tests. (Small and Snyder 2010a). The Lance studies are part of a group of research projects using quantitative methodologies to examine student test scores against a variety of factors which intuition or experience suggest have potential to impact student academic achievement as expressed in test scores (Williams, Coles and Wavell 2002). Lance's Colorado Study (1993) was the first study of its kind linking school library provision with academic achievement in the United States; in contrast to previous research on this subject, Lance's study uses schools, rather than students as the units of analysis, considers service outputs as well as resource inputs, and rules out the effects of selected school and community conditions which might have explained away this relationship. (Lance, Hamilton-Pennell and Welborn 1993) To date, 22 US states and one Canadian province have replicated the first Colorado Study as a model to investigate their own state school libraries and how they impact achievement. In all of the States investigated, evidence affirms that school libraries staffed by certified library media specialists do make a measurable difference on school achievement (Scholastic 2008).

Keith Curry Lance extended the "Colorado" study in Pennsylvania schools by also investigating the library's role in the information literacy of its students (2000). He found that school library staff was "correlated consistently and positively with the level of school library expenditures and the number and variety of available information resources (e.g., books, periodicals, databases)" (p. 42). In addition, the more school library staff were available, the more those staffing levels contributed to the integration of IL in the school. As school library staff hours increased, "weekly hours were available to teach cooperatively with teachers, provide in-service training to teachers, meet with standards and curriculum committees, provide information skills instruction to groups or individuals and manage information technology" (p.42). With increased staffing at the elementary level, there was time to "commit to licensing and promoting up-to-date, high-quality, well-organised databases, which not only allows students to learn how to find information from these types of resources, but also addresses the concerns of some public officials and interest groups about very young children having

completely open access to the Web” (p. 43). It is not surprising that there is a positive correlation between library expenditure and a library’s collection of information resources. One librarian interviewed during the Pennsylvania study said that with an increase in her library budget, she was able to weed out nearly the entire 900 section of her library and replace all the outdated history and geography books, and renew the 300 section of the collection. With an up to date book collection, the librarian was able to convince students and faculty to use book resources first before resorting to the internet for fast, reliable information.

In summary, the body of research that includes twenty-two states and one Canadian province also confirms that incremental increases in the following can result in gains in student learning:

- increased hours of access for both individual student visits and group visits by classes;
- larger collections of print and electronic resources with access at school and from home;
- up-to-date technology with connectivity to databases and automated collections;
- instruction implemented in collaboration with teachers that is integrated with classroom curriculum and allows students to learn and practice such 21st century skills as problem solving, critical thinking, and communication of ideas and information;
- increased student usage of school library services;
- higher total library expenditures;
- leadership activities by the librarian in providing professional development for teachers, serving on key committees, and meeting regularly with the principal.(Kachel 2011, p. 4).

2.7.2 Research from Australia

Similarly in Australia, Softlink, the company that conducted the UK School Library Survey (see Section 2.2, p. 5), completes an Australian School Library Survey annually. This survey is undertaken each year “to allow Softlink to compare and report on significant findings for the education sector, and any changes which may have occurred over the last 12 months” (Softlink International 2011, p. 2). Softlink invited responses from 9,786 schools across Australia. Responses were received from approximately 13% of these schools (Softlink International 2011 p. 5). There is no indication in the report that the 13% of schools who responded are representative of the country as a whole.

Softlink’s position in conducting this research is that Australian school libraries should receive adequate funding, appropriate resources and professional staffing. “The principal findings from Softlink’s survey (2011, p. 2) include:

- Where student numbers are the same, it is shown that primary school libraries receive significantly less funding and staff allocated to the library than secondary schools;

- Four out of five school libraries which responded have experienced a budget decrease, in real terms, compared to the previous year;
- One in six respondent schools have decreased their school library budget by more than 10% in the last 12 months;
- Larger government schools have significantly fewer staff allocated to the school library, compared to the larger Catholic and Independent schools;
- There is a significant positive relationship between a school's National Assessment Program Literacy and Numeracy (NAPLAN) reading literacy score, the school library's budget and staff allocated to the library;
- The difference in funding and literacy outcomes can be quantified. In general, low performing schools allocate 30% less to the school library budget than average schools. Higher performing schools allocate twice as much to the school library budget as average schools.

The final two findings in the Softlink International survey are consistent with the findings in the US: there are positive relationships between well-funded and appropriately staffed school libraries and student achievements.

Softlink's survey was replicated in 2013, and the results remain consistent with the results presented here.

2.7.3 Research from Jamaica

In 2014, a study was completed in a Jamaican primary school by Kerry-Ann Rodney-Wellington, an Assistant Lecturer from the University of the West Indies. The study was to determine whether or not direct instruction of IL skills had an impact on how grade 6 students (children aged 11-12 years) carried out research tasks. Two classes of 33 students were chosen for the study. Both groups were given an IL pre-test, which assessed their general knowledge about where to find information, how to use reference books, how to note-take and summarise information, how books are arranged in a library, and how to write a bibliography. The results of the pre-test showed that the students in both groups lacked basic information management skills. Rodney-Wellington asserts that "this should be viewed in the context of the absence of a school librarian, and the library resources needed for them to be information literate" (2014, p. 88). The next step was for one of the two classes to receive direct IL instruction over a three week period. The lessons were taught by the classroom teacher and the researcher, and covered nine topics which were selected from grade six IL curriculums from several existing school district syllabi. The nine topics included:

- the research process;

- reference resources;
- parts of a book;
- note-taking;
- alphabetising;
- Dewey Decimal Classification Scheme;
- catalogue entry;
- cross-referencing;
- writing citations;

At the end of the three week period, both groups were given a post-test on each of the nine topics above. Not surprisingly, the group that had the three weeks of IL instruction scored significantly higher on all nine topics than the group who did not receive instruction. The findings of this study do show that direct instruction improved the information seeking skills of the students in the experimental group, and supported the view that an IL curriculum should be developed at the primary school level.

The Jamaican study is significant to this research because it closely resembles the experience in England. School libraries are inconsistent throughout the school system, and there is no information literacy framework for schools in Jamaica. The findings from the Jamaican study show any IL skills in the curriculum are geared toward completing tasks required by the subject area and not on developing IL skills. What the article did not clarify was whether or not students were able to transfer IL skills into other areas of the curriculum.

2.8 Professional Library Bodies

There are four prominent professional library organisations that support UK school libraries. These are: the International Federation of Library Associations (IFLA), the Association of Senior Children's and Education Libraries (ASCEL), the Chartered Institute of Information Professionals (CILIP), and the School Library Association (SLA). All four groups advocate for schools to provide libraries, and offer guidance and training to schools who are interested in providing a library service.

IFLA's Libraries for Children and Young Adults section has the major purpose to support the provision of the library service and reading promotion to children and young adults throughout the world. Its main objectives are to promote international cooperation in the fields of library services to children and young adults, and to encourage the exchange of experience, education and training and research in all aspects of this subject. The section's concerns include the provision of library services to all children and young adults in different cultures and traditions in cooperation with appropriate organizations and to adults interacting with children and young adults. The Section works in cooperation with other IFLA Sections and a number of international reading and library associations,

including the International Reading Association (IRA) and the International Board on Books for Young People (IBBY).

CILIP has two special interest groups that support school libraries. Both the Youth Library Group and the School Libraries Group provide support, networking and advocacy for school librarians. CILIP's stance on school libraries is as follows:

School librarians help children and young people navigate the information world, improving their information literacy skills, and as a result, their life chances. They also make a vital contribution to teaching and learning. We believe in the value and importance of the professionally managed school library. We advocate for school libraries and librarians through our campaigns, consultation responses and ongoing public affairs activity (no date).

Although CILIP's statement does support research findings from the United States and Australia mentioned previously, it is merely a recommendation rather than a requirement, and the government's stance on school libraries remains one in which they believe that schools should have the power to use their funding as they wish, whether or not that includes school library provision.

ASCEL is a national membership network of Senior Children's and Education Librarians, who work together to stimulate developments and share initiatives relating to children and young people in public libraries and educational services.

Strategies to develop and sustain services are accomplished through a National Committee and 11 Regional Committees who work with a range of national and local organisations to:

- Promote the value of library services for children;
- Jointly agree policies and strategies to develop and sustain services;
- Promote discussion and exchange of ideas through training and continuing professional development, an annual conference and a members' website;
- Collect and disseminate information to support members' knowledge and skills and to develop library services for children and young people (ASCEL no date).

The ASCEL members in an authority are usually the Head of Services for Children and the Head of the Schools Library Service. Where this post is combined, an authority may have up to three members - the person with strategic responsibility for services to children and young people, the person directly responsible for the children's public library service and the person managing the SLS where it exists. (ASCEL no date).

School Library Association (SLA) is an independent charity that believes that every pupil is entitled to effective school library provision. Some of the services offered by the SLA include:

- Advisory and information services;
- Publications that are practical for librarians working in schools;
- INSET courses;
- Network of branches to provide local support;
- Advocacy for school libraries and Schools Library Services.

SLA also conducted a 2010 school library survey, which was discussed in Section 1.2.

2.9 Other Agencies

Three major reading initiative organisations were examined for this research: Booktrust, The National Literacy Trust and The Reading Agency. These organisations do not necessarily support or advocate for school library provision, but their focus is to increase literacy and promote reading for pleasure, particularly in young children. What is significant about these organisations is that they recognise that there is a need for literacy support programmes in the UK, however, there is no mention that the work that they are doing outside of schools to improve literacy could be accomplished in school by a specialist librarian. The difference to the government and the schools is that these organisations are funded by donors, and not taken out of annual budgets.

Booktrust is the largest reading program in the UK. They are not solely a program for or about school libraries however, they offer reading support, which is evidenced through their book giving programs. They provide gifts of free books and parental guidance to babies and toddlers to foster an early love of books. Primary school Booktrust programmes work with schools and libraries to create positive attitudes about reading. At primary level, they work with local authority public libraries, but there is no mention of school libraries on their website, so it is not known if they support providing school libraries at any level. Their research indicates that the Booktrust programmes offered have increased children's attitude toward reading, however there are no long term studies showing how these programmes impact reading performance in school.

The National Literacy Trust works to improve the literacy of disadvantaged people in the UK. They establish literacy projects in the poorest communities, they campaign to make literacy a priority for politicians and parents and they work with schools.

The Reading Agency, which is supported by the Arts Council England, is the only of the three organisations that works specifically with public libraries to promote reading for pleasure across all age ranges. They also have partnerships with authors, publishers and library organisations (ASCEL for example), plus a number of private sector partnerships.

All three of these agencies work in the UK to promote literacy across a range of different abilities and age groups. They are all aware, through their research, that literacy in the UK is an area of concern by the government, but none of them advocate for schools to be the primary place to promote and foster reading and literacy skills.

2.10 Education and Training of School Librarians

Currently, there is no formal qualification requirement in England for school librarians, so the levels of training that school librarians may have is inconsistent in both primary and secondary schools. As a result, school librarians have a lower status in the UK than librarians in other countries, like the United States, where the ALA stipulates the graduate degree as the entry level for the school library media specialist. Almost all states require that the library media specialist be certificated as a teacher prior to certification as a library media specialist, and most are paid on the same salary scale as teachers (Zimmerman 2002, p. 89). In England, school librarianship is not recognised as an academic profession, which creates a situation where teachers and librarians are not speaking the same language in terms of standards and curriculum. In the USA where many states require that librarians also be teacher certified, those librarians are trained in pedagogy and have an experiential grasp on the curriculum that they can use when they are in collaboration with teachers. It also allows them to be instructional partners who can support the curriculum. “The idea of dually qualified teacher-librarians had some interest for UK librarians, but this died out in the 1980s” (Sacco-Ritchie 2009, p. 30). On the School Librarian Network, when the idea of being dually qualified was discussed, it was not favoured by librarians who were assured that if they had teacher certification as well, they would be used as cover supervisors within the school, rather than dedicated librarians with instructional responsibility. The assumption may be correct, which goes back to the perception of the librarian; if the librarian is perceived as an administrative position only, rather than an academic one, there will always be the view that subject teaching is more valuable than the support the librarian can offer the students.

The skills needed to practise librarianship were disputed from the very beginning of the formation of the Library Association in 1877, which was a non-qualifying association at inception. There was no requirement for a formal qualification and professional views expressed at the time reflect librarians’ perception of the popular opinion, and frequently advocate a higher status, and larger wage-package. (Luthmann 2007 p. 774)

Research conducted in Colorado (Lance, Welborn, & Hamilton-Pennell, 1993) has demonstrated that the size of the library staff and the library collection is a predictor of the academic achievement of students. The data also suggest that the collaboration between teachers and school library media specialists, combined with the presence of large school library collections, were key factors in student academic success.

School librarians also face a lack of specialist evaluation, which is addressed by Hartzell (2002): there is not a specific evaluation instrument with which to evaluate school librarians at any level, unless a school specifically tailors a performance review to the library staff.

Even in Ofsted evaluations, the library is not measured or named specifically; the school library falls under the 'resources' heading, and any resources provided by the school that is separate from academics is evaluated under this category.

Although there is no formal requirement, there are several routes to gain library qualifications in England, although none offer a specific certification for school librarianship.

One route to qualification is by having a bachelor's degree and a postgraduate librarianship qualification. There are currently 15 universities in the UK that have undergraduate and postgraduate programmes in Library and Information Management. None of those universities offers specialised courses specifically geared for school librarianship, however, coursework will provide a grounding in many of the activities that school librarians are required to do, like categorisation and classification of resources, stock management and information retrieval.

Vocational qualifications provide the ability to gain a qualification while on the job. However, according to the CILIP website, the NVQ level qualifications were withdrawn by Pearson's Work Based Learning, and the qualifications were being managed by the Scottish Qualification Authority (SQA). Upon examination of the SQA, it was determined that there is no longer a qualification for Library, Archives and Information Services. The closest qualification is the ICT NVQ, where a course is offered on computer applications in libraries.

Another route to qualifications include Chartership, which is offered through CILIP. Differing levels of qualification through Chartership are offered depending on the degree level of the librarian, and the job role they fulfil as a librarian in their school.

Qualification is a sensitive issue for school librarians in particular. Librarians who post on *School Librarian Network* (2013) have a divided view of obtaining a library qualification. Some librarians believe that experience is the most important aspect of school librarianship, and a degree qualification will not make them achieve more in their job roles. Other librarians feel that degree level qualifications provide a level of professional credibility that gives them specialist knowledge beyond that which they could learn on the job.

The issue may be divisive among school librarians, but lack of qualifications may contribute to how school librarians are perceived in their schools, which will be discussed in the next section.

2.11 Perceptions of School Librarians

One obstacle to school library provision in many English schools is the perception by head teachers that librarians are not academic staff; they are clerical or administrative staff. They may not be aware that “professionally trained media centre specialists and teacher librarians function as intermediaries between society and school, and between teacher and students, through their work of acquiring, managing and distributing information resources and services” (Kapitzke 2003, p. 37).

Senior management teams “are ignorant of the value and function of librarians’ positions, which can be disastrous for the library given there are no national requirements for provision” (Sacco Ritchie 2011, p.97). As a result of the lack of nationally recognised qualification, “librarians who have no CILIP accredited library qualifications suffer from the lowest statuses, the lowest levels of satisfaction and do not feel regarded as professional members of staff” (Sacco Ritchie 2011, p.99).

In spite of extensive discussion about the skills and expertise required by LIS professionals, there is still no uniform agreement on a standard qualification for all librarians (Shaw 2010 p. 556). CILIP guidelines for school librarians relegate all mention of expected qualifications for school librarians to a sample job description in an appendix (Sacco Ritchie 2011, p.91) These CILIP guidelines are actually minimum requirements in the USA and Australia, as a result of the positive effects on student achievement observed when a school invests in good resources and a qualified specialist librarian (Brackenbury and Willett 2011, p. 237).

An additional issue for school librarians is the perception by head teachers that the library is “a cost, rather than an investment” (Chan 2008 p. 9). Many head teachers are unaware of what librarians actually do; “principals understand teachers and teaching, having worked in classrooms themselves, but they are largely unfamiliar with and misunderstand what it takes to run a library” (Hartzell 2002 p. 94). Many school librarians are part of the schools administrative support team, rather than an academic team because they do not hold an educational qualification. Although clerical duties are necessary in libraries, it is unhelpful to assume that the administrative duties are the only facet to librarianship (Shaw 2010). Librarians in schools where they are most valued do take responsibility for educating students as well as completing the clerical parts of the position.

There is no formal observation requirement for librarians so head teachers have to rely on informal observations to decide whether their school library is effective (Everhart 2006). Additionally, there is no formal inspection of a school library from Ofsted, and libraries are mentioned very little in their new framework for inspection. Another problem is that many school libraries employ unqualified librarians, thus devaluing the program even further; if an unqualified person is merely getting books on shelves and nothing more, there will be very little value seen by head teachers. Because head teacher attitude could be considered to be a barrier to effective school library programmes, it is worth

investigating how these attitudes are actually limiting the support for literacy that schools should be focusing on now.

Teachers are also unaware of how much support can be given by professional school librarians, and they tend to view librarians as “support resources rather than as colleagues” (Hartzell 2002 p. 96). There is no evidence to suggest that teachers are trained in any aspect of school libraries during their teacher training, which might be of value to teacher trainees. “Additionally, the low profile of school librarians may be due to the role itself: librarians empower others; contributions are absorbed into a teacher’s lesson or a student’s project and it is difficult to distinguish the librarian’s contribution in the finished work” (Hartzell 2002 p. 95).

The following sections discuss information literacy and its importance as a skills set in the 21st century. Though there has been research published on information literacy and its significance to empower people, there is very little emphasis on teaching and learning these skills beginning in primary schools, where students are assumed to be digitally literate because of their exposure to the internet and internet technology from a young age. One of the barriers to teaching information literacy in schools is the lack of a nationally recognised information literacy framework. Another problem recognised with information literacy is the difficulty in reaching a consensus on the ‘best’ definition, which will be discussed in the next section.

2.12 Defining Information Literacy

The volume of available information in a variety of media makes it more challenging for people to address an information need if they lack the skills to access a wide range of information. Bruce (1997) emphasises that Information literacy is one of the most critical literacies for an educated person in the 21st century. IL skills instruction would be beneficial from the time children first begin school. Research into the information behaviour of children and young people indicates that although many young people today have grown up with, and have access to a wide range of information, they are lacking the skills to acquire, evaluate and analyse that information (Selwyn 2009). Rowlands, et al. (2008) discovered that the information literacy of young people has not improved with full access to technology: in fact, their ease with computers disguises some worrying problems. Although a few information literacy skills are present in the National Curriculum, there is no complete information literacy skills framework, so it is not clear if information literacy instruction is being delivered. There is presently no national standardised form of assessment to determine whether students have actually achieved these skills.

One of the difficulties, according to research, is that definitions of information literacy and what comprises an information literate person are often unclear, or have many interpretations. The

definition used by the American Library Association (2000) is one that is widely accepted, and comes closest to what may be considered an authoritative description:

“To be information literate, a person must be able to recognise when information is needed and have the ability to locate, evaluate and use effectively the information needed. Ultimately, information literate people are those who have learned how to learn. They know how to learn because they know how information is organised, how to find information and how to use information in such a way that others can learn from them”.

SCONUL(2009) regards information literacy as an umbrella term which encompasses such concepts as digital, visual and media literacies, academic literacy, information handling, information skills, data curation and data management.

The Australian and New Zealand Information Literacy Framework (Bundy,ed. 2004) offers a similar definition: ‘A thriving national and global culture, economy and democracy will be best advanced by people able to recognize their need for information and identify, locate, access, evaluate and apply the needed information’ (p.2)

In 2000, the United Nations Educational, Scientific and Cultural Organization (UNESCO), created the Information for all Program, which recognised the importance of information access for equality, development, survival and sustainability. Their position on information literacy is that it:

“Empowers people in all walks of life to seek, evaluate, use and create information effectively to achieve their personal, social, occupational and educational goals. Information-literate people are able to access information about their health, their environment, their education and work, and to make critical decisions about their lives”.

It has been noted that “research suggests that early information literacy instruction, using informational texts and collaborative, teacher-librarian curriculum planning promotes critical thinking and increases the ability to problem-solve: two skills necessary for survival in today’s information age”. (Heider and Heider 2009, p.513) The need to navigate through the constant deluge of information that students encounter every day requires schools to guide students to evaluate and process that information. It may be unreasonable to expect that teachers are going to have time in a very tight curriculum to allow students to practice searching skills and information evaluation skills. Additionally, teachers do not necessarily come into the profession knowing how to teach those skills to students; in some cases, teachers struggle to assist students with that skills base. England’s education system is assessment heavy, and the absence of an assessment for information literacy may create a lack of instruction in this area, making it possible that it is not being taught in schools and it

means that students in English schools are eventually competing in a global market that expects these skills to have been mastered.

Although the definitions are essentially similar in that they emphasise the ability to locate, evaluate, manage and communicate information, it is important to note those definitions which go beyond those basic skills and discuss concepts like transferable knowledge and lifelong learning because those definitions highlight the idea that information literacy empowers adults to make informed, knowledgeable choices about the world around them, beyond the safety of the school environment. Bruce (2003) noted that ‘information literacy is generally seen as pivotal to the pursuit of lifelong learning and central to achieving both personal empowerment and economic development.’ This is the idea that is necessary in a school context rather than the emphasis on learning the skill which can be assessed, rather than learning the skill to be transferred into a real life context.

2.13 Multiple Literacies

Information literacy is also central to multiple literacies, and works together with script literacy (which comprises reading and writing) and media and digital literacy (which are literacies dealing with technology and multimodal abilities). “Multiple literacies such as these implies that there are different literacy genres and a variety of literacy situations, which may be accompanied by a range of literacy practices” (Paul & Wang 2006, p.305). There have been attempts to categorize these multiple literacies into two broad areas:” tool literacies and literacies of representation” (Tyner 1998). Tool literacies may include:

- Computer literacy;
- Network literacy;
- Technology literacy.

These are all the ‘things’ that students can use to access information. Literacies of representation refers to “the analysis of information and the understanding of how meaning is created”(Paul & Wang 2006, p.306). This concept includes entities such as

- Information literacy;
- Visual literacy;
- Media literacy.

The following figure is an interpretation of how tool literacy and literacy of representation work together as a process.

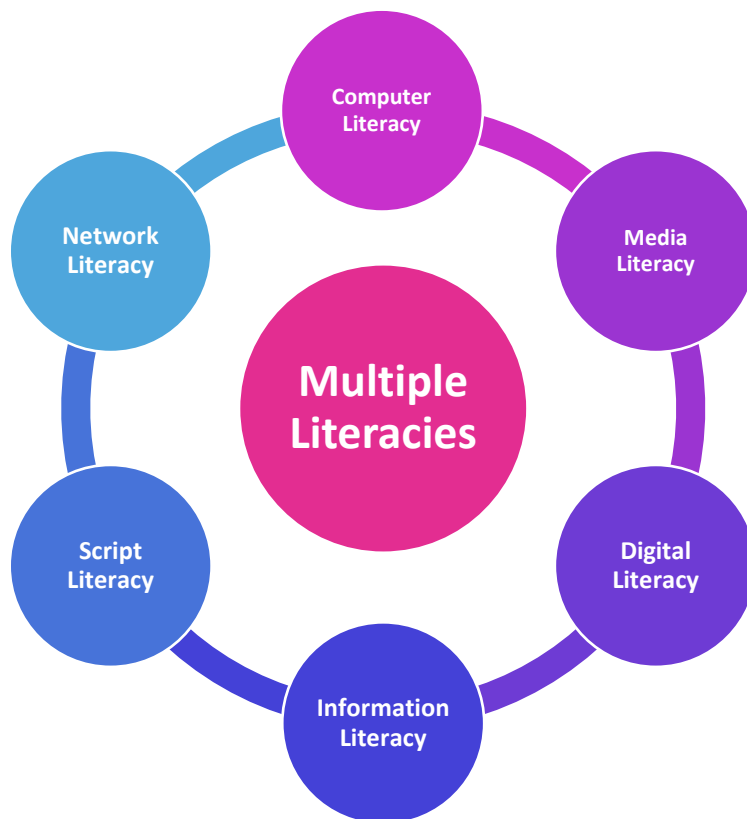


Figure 1 multiple literacies

Multiple literacies require that both tool literacy and literacy of representation work together in order for a person to be considered literate. Schools tend to focus their attentions on script literacy, which is the ability to read and write, as well as on tool literacy; an example of this is the change in the primary national curriculum to omit the ICT component, which was largely about accessing information using the network, and replacing it with Computing, which comprises mainly of students being able to use code and programming. This will be discussed further in Section 5.7.

The challenge for educators is that there is an uncertainty about teaching these literacies, or regarding them as unimportant. Part of that uncertainty may stem from “their own knowledge of and use of digital literacies which may pale against that of the students” (Tierney, Bond & Bresler 2006, p. 360). Teachers may also make the assumption that students are already tool literate because they have grown up with technology, so there is no need to give them specialised instruction on locating sources. The next section raises the issue of what makes information literate primary school students, and why growing up with the internet may not be an indicator of information literacy.

2.14 The Information Literate Primary School Student

The definitions of information literacy described in the previous section are accepted as authoritative to establish what makes a person information literate ; however, the phrasing of these definitions do not always fit with the cognitive development of primary aged students. The School Library Association has developed aims for each of the elements of being information literate: locating, evaluating, using and communicating pitched to meet primary school students 'where they are' in their cognitive development so as a result, the favoured definition for this research is from CILIP:

“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” (CILIP 2004).

Though advocates for information literacy instruction do emphasise the importance of teaching IL skills from an early age, Hepworth and Walton (2009) have suggested that because defining an information need is an abstract concept, very young students would find this part of the information process difficult based on their cognitive development. This should not exclude young primary school children from being exposed to basic information searching skills; initial library instruction can be used as a base to add to as their schooling continues. “A constructivist approach builds knowledge by engaging students in stimulating encounters with information and ideas.” (Kuhlthau, Maniotes and Caspari 2007, p. 14). If a library is present within a school, even young children can be asked to find information about the topic they are studying in class. They may not have the cognitive ability to specifically define an information need, but they will recognise that there are things about the topics that they are studying that they do not know enough about; if they are guided through the information searching process to fill the gap in their knowledge with something that interests them, it becomes the base that can be built upon with further practice. “When research assignments match stages of children’s cognitive development, they are more satisfied with their learning, more confident in their ability to use the library, and more interested in using nonfiction and reference books in seeking information” (Kuhlthau 2010, p.513-14). Shenton and Dixon (2004) propose, by engaging students in information seeking activities that are genuinely meaningful to the students, they will “undertake an actual information search on a favourite topic, using a variety of suitable resources” (p.14).

“The purpose of information literacy is to enable people to create and use new knowledge and hence this component represents the product of IL practice” (Catts and Lau 2008, p. 13). If constructivist theory is applied appropriately in an information literacy context, then students who are taught information literacy skills from an earlier age should result in students being able to address an information need successfully in all subject areas by the time they arrive in their last year of primary school.

There is currently no accepted standard IL framework for primary school students in the UK, and with the changes in the National Curriculum, information literacy skills are no longer addressed in the ICT section of the curriculum. Existing information literacy frameworks outside of the UK will be discussed further in section 2.15.

2.14.1 The Myth of the Digital Native

It is easy to assume that young people are able to use information effectively since they have had the internet their whole lives. However, a growing problem is not that students are unable to find information, but that they are unable to evaluate and process the information they do find. Students require a more complex level of reference support now more than ever, because a search engine that yields entirely too much information for the students to adequately process is nearly as ineffective as receiving a minimal search result (Massis 2011, p. 275). “The skills required to locate information depend on the context in which a person is applying their IL skills. Increasingly, people seek information using internet search engines where there is often no filter on the quality of the information located.” (Catts and Lau 2008, p. 12)

Many students, even younger ones, are reasonably adept at finding information; most have been exposed to books and search engines from an early age (Selwyn 2009). Students born after 1980 are described by Mark Prensky (2001) as “‘digital natives’ due to what he perceived as “an innate confidence in using new technologies such as the internet, video games, mobile telephones and all the other toys and tools of the digital age” (p.1). Also, according to Rowlands, et al. (2008, p.302): “there is no evidence in the serious literature that young people are expert searchers or that the search skills of young people have improved with time.” Students are capable of using internet technology to ‘Google’ the information they may need, however, they may not be knowledgeable enough to find quality information that best fits their needs. “The propensity to rush, rely on point and click, first upon Google answers, along with growing unwillingness to wrestle with nuances or uncertainties (a consequence of laziness) or inability to evaluate information, keeps the young especially stuck on the surface of the information age, too often sacrificing depth for breadth” (Nicholas, et al 2011, p.44). This was observed in many of the schools in which the researcher had experiences in; the tendency for students to use simple search engines to find information, cut and paste the information directly from websites, and the perception that the internet was far faster than books. Teacher attitudes had some influence in how students searched, as well, since they also viewed the internet as time saving, and would likely perform their own searches for information in the same manner.

In a survey of 507 teachers in England, Bartlett and Miller (2011) investigated perception of student competency in locating information online, and evaluating the information’s fitness for purpose. The researchers found that “as many as a quarter of 12-15 year olds did not check their found information for quality when they visited a new website, a third of the students assumed that information found

from a search engine was truthful, and 15 percent of students were influenced more by the attractiveness of the website, rather than the quality of the content” (Bartlett and Miller 2011, p.5). “The ability to find and evaluate information online is described as digital fluency” (p.4). “The architecture and functionality of the internet makes the job of separating the wheat from the chaff even harder. A specific body of skills and knowledge is required to make informed judgments” (p.4). This is where information literacy instruction could be useful; it can be a tool to help students navigate through the information they find and if taught from an earlier age, it is likely that the bad habits they could form in evaluating sources would never form.

2.15 Models of information literacy instruction

Information models can illustrate the ways that people search for information as well as their motivation for searching for the information that will suit their purpose. Two information seeking models that were considered in this research were the Big6 Skills model and Kuhlthau’s ISP model. Both are used in American primary school libraries, and have shown evidence of success in students who are instructed with these models in place. Both models are dependent on the employment of a school librarian, who is responsible for providing the instruction to students, and who also works with teachers to support IL across the curriculum.

The Big6 Skills Model, developed by Eisenberg and Berkowitz (1990) is an American model for information literacy that is part of a library and information skills curriculum, so it is easily adapted for use in a school library media centre by a librarian. Additionally, it is ideal for integrating skills instruction with subject area curriculum. It is adaptable to all subject areas, and “the goal is to develop the full range of skills over a number of years” (p. 15). It is a model that could easily be adapted into the UK education system because it teaches students how to search for and use information in a way that can be transferred across the curriculum in any area that requires problem solving or critical thinking.

The Big6 model provides educators with a model for teaching the research process and including information technology skills in the curriculum. What is striking about this model from an information literacy instruction angle is that it provides a set of skills that students must master in order to be successful in any learning context. This means that the model can be extended to any subject area as well as to any problem solving exercise. This is the goal of information literacy instruction: that the skills learned from an information literacy context are able to be transferred into all curriculum areas, not just research assignments. So, although Big6 was developed for the field of library and information science, it can be applied to any information situation, whether it is an academic pursuit, or just a personal information need or want.

The Big6 Skills model also emphasises repetition of skills to ensure that students can use them across the curriculum. “Some redundancy should be built into the overall library and information skills program. Each of the Big6 Skills should be addressed a number of times from kindergarten through grade 12, in a range of different subject areas” (p.16). This highlights the importance for teachers and librarians to collaborate on instruction in order to embed information literacy skills into the curriculum in every subject area, because the more that students are repeating the use of these skills, they not only gain the practice needed for these actions to become habits, but also they learn that information literacy skills are not just library or research skills; they are skills useful for problem solving. Currently, only informal, anecdotal reports about the Big6 have been produced, but these reports suggest that the steps are used by successful people every day; the Big6 provides the guidelines for teaching these steps to children. Other informal research has shown that the Big6 provides a useful framework for teaching technology skills, and that teaching these skills with information problem solving results in better retention of knowledge (Eisenberg, M., Lowe, C., &Spitzer, K., 2004).

Kuhlthau’s Information Seeking Process model (ISP), was “developed in the 1980s and refined in the 1990s. Since its conceptualisation and development, the model has been used as a model and diagnostic tool for understanding the information search experience of people in a variety of library and information settings”(Kuhlthau, Heinström & Todd 2008, p.1). The ISP “provides insight into how to guide students in the inquiry process that underlies Guided Inquiry, which is a planned, targeted, supervised intervention throughout the inquiry process” (Kuhlthau 2010, p. 4).

Guided inquiry is based on the premise that deep, lasting learning is a process of construction that requires students’ engagement and reflection. Research findings into the ISP reveals that without guidance, students often copy and paste with little real learning. (Kuhlthau 2010). When they are guided, Kuhlthau (2010) found that students are able to construct new knowledge, but they also gain transferable skills.

Without a framework in England, a challenge to IL instruction in school is that teachers themselves may not be widely information literate, because they may not have had access to information instruction. They may know how to use Google for information searching, however, they may not be knowledgeable about advanced searching, using databases or using books to do research. This means that information literacy instruction is inconsistent across schools in England.

Information literacy is not just about research skills. Information literacy skills are about problem solving, critical thinking, and strategizing finding the right information to suit any purpose. This can mean that students can use their information literacy skills to solve mathematical equations as well as to employ the scientific method to complete experiments.

There is currently no information literacy framework targeted for students in English primary or secondary schools, however, one higher education framework was examined for this study because it could be adapted across primary and secondary levels.

The Society of College, National and University Libraries (SCONUL) is an organisation that promotes awareness of the role of academic libraries in supporting research excellence and student achievement and employability. SCONUL's working group on information literacy devised the Seven Pillars model for information literacy in 2000, and it is still currently a recognised framework in higher education. It was updated in 2011 to meet the needs expressed by universities; there were some universities that felt that the seven pillars model did not fit with digital delivery modes, which is how information literacy skills instruction is being delivered.

The Seven Pillars offers a relatively simple model of delivery that could easily be adapted to primary or secondary school levels. It includes skills that students would have reason to use across subjects taught in the national curriculum, and could be embedded into regular teaching topics. In addition, the Seven Pillars model could be part of a school library programme and delivered by a librarian to save teachers' time. The Seven Pillars model is as follows:

Information literate people are able:

- Identify: to identify a personal need for information;
- Scope: to assess current knowledge and identify gaps;
- Plan: to construct strategies for locating information and data;
- Gather: to locate and access the information and data they need;
- Evaluate: to review the research process and compare and evaluate information and data;
- Manage: to organise information professionally and ethically;
- Present: to apply the knowledge gained presenting the results of their research, synthesising new and old information and data to create new knowledge and disseminating it in a variety of ways (SCONUL, 2011).

This list is appropriate for the higher education sector, however, in its existing form, may not be appropriate for the developmental level of primary school students. For example, in the first pillar, proficiency is determined by a person's ability to identify a personal need for information. In the case of a primary school student, they may not have the cognitive ability to realise that they have a personal need for information. A primary school student may, however identify what information is needed to complete a task set by a teacher, and could go through the steps to determine the information and resources that are the most appropriate to fill that need. Additionally, a primary school student may not have the ability to evaluate resources independently to check the suitability for purpose.

2.16 The Primary National Curriculum in England

There is no recognised national information literacy framework in England, and no information literacy frameworks for primary schools. The National Curriculum that was active until 2014 provided some requirements for information literacy skills as part of the Information Communication and Technology coursework, however, from September 2014 that was no longer a required course.

One of the problems with information literacy skills in the National Curriculum is that while the relevant skills may be written into separate subject areas, the instruction may be inconsistent because the skills may be perceived as research or library based only. As noted by Shenton and Dixon (2004) “Schools have not always favoured a method of fostering information skills that involves any kind of wider, curriculum integrated perspective” (p. 14). Additionally, if teachers are not confident in their own skills when using information, they will struggle to encourage their students to employ effective search skills during assignments where they are required. The drawback, according to Lincoln (1987) is that “when the body of information skills is presented within a ‘study skills’ umbrella, for pupils it remains out on a limb and is rarely transferred to the main core of their studies in subject areas” (p. 8). The balance is difficult to achieve; there are librarians around England who are able to teach information literacy skills as a timetabled lessons in secondary school, which is beneficial, but because they are stand-alone lessons, they tend to be less meaningful for the students, who are not able to transfer the knowledge from the library lesson to a particular subject area.

A new National Curriculum was written in 2013, and officially implemented in September 2014. The changes will mean a shift in the core requirements; English, Mathematics, Science and Physical Education will all be statutory courses, while other courses, such as History and Geography are not core programmes. Information literacy skills instruction is also included in the non-statutory notes:

“The skills of information retrieval that are taught, should be applied, for example, in reading history, geography and science textbooks, and in contexts where pupils are genuinely motivated to find out information, for example, reading information leaflets before a gallery or museum visit or reading a theatre programme or review. Teachers should consider making use of any library services and expertise to support this” (National Curriculum 2013, p. 45).

Another change to the National Curriculum is the removal of the Information Communication Technology (ICT) component. It has been replaced with Computing, in which “pupils are taught the principles of information and computation, how digital systems work, and how to put this knowledge to use through programming” (National Curriculum 2013, p.178).

People can be information literate in the absence of Information and Communication Technology (ICT), but the volume and variable quality of digital information and its role in knowledge societies has highlighted the need for all people to achieve information literacy skills. For people to use

information literacy within a knowledge society, access to information and the capacity to use ICT are both prerequisites. Information literacy is however, a distinct capacity and an integral aspect of adult competencies (Catts and Lau 2008, p. 7). Though it is essential that students are able to use the technology in order to access information, it is more important that they can access relevant information from any sources that happen to be available. The point is that information literacy skills should transfer beyond where students find information.

2.17 The School Library's Role

Despite what educators may know about the importance of information literacy, advocacy for primary school libraries is not as strong; the focus tends to be on the secondary level. Primary schools have an excellent opportunity to provide students with an information literacy foundation which those students will carry with them into secondary school if they provided students with a school library, which could promote reading for pleasure, raise literacy levels and guide students' information literacy development.

"Like critical thinking skills; information literacy skills must be taught and practiced in multiple ways and in a variety of settings over time" (Harris 2003, p.215). Gordon (2000) noted that "information skills must emerge from the academic areas in which they are embedded" (p. 13). This appears to be the aim of the National Curriculum; the concepts of information literacy are stated within the strands of different subject areas, but it is not clear how these skills are being taught within those contexts, nor is there any mention of assessing the students' information literacy.

Many educators understand that students will retain new information better when it is embedded in concepts that they have learned previously. This constructivist theory is supported by Kuhlthau, Maniotes and Caspari (2007): "children will best be able to apply skills when they learn them in a constructed fashion; one skill building onto another" (p 14). This is a key concept that classroom teachers tend to follow, but according to Kuhlthau, there is also substantial evidence that students benefit from learning through school libraries. A review of some of the research on the impact of school libraries in student learning indicates the value of engaging students in guided inquiry.

"Guided inquiry offers an integrated unit of inquiry, planned and guided by an instructional team of a school librarian and teachers, allowing students to gain deeper understandings of subject area curriculum content and information literacy concepts. It combines often overlooked outside resources with materials in the school library. The team guides students toward developing skills and abilities necessary for the workplace and daily living in the rapidly changing information environment of the 21st century" (Kuhlthau, Maniotes and Caspari 2007, p.1).

Embedding the information literacy concepts taught in the library into the curriculum so that it becomes more meaningful to students will support their understanding and ability to access

information about different subject areas. Teachers are under great pressure to teach their curricula within reasonable times, so they may be hesitant to engage with the librarian to help develop Guided Inquiry. What they fail to realise is that students who are able to access information effectively could save teachers time and are likely to produce better results.

While guided inquiry is one model of practice for information literacy instruction, it suggests that students should be responsible for researching topics that are of their own interest, which is not realistic in an England primary school context, where the National Curriculum does not leave teachers time to allow students freedom in their topic choices. Gross's (1999) imposed query model, which addresses the notion that students "routinely use library services to answer questions posed by teachers" (p. 501), may be more appropriate in an English setting because it allows students to explore topics that are set by the teachers, rather than searching for information independently, which the time constraints of the National Curriculum do not allow for.

It has been the responsibility of Schools' Library Services (SLSs) to provide resources to establish libraries in schools who want that provision for their students; however, money prevents many schools from providing any kind of library service at all. Additionally, the provision of library resources by SLS means that little attention is paid to school libraries by Ofsted; although they state that libraries are 'key resources' (Ofsted 2012) libraries are not included in the inspection reports.

Financially, school library provision is not feasible for some schools because they allocate little or no budgets to invest in library programmes. Booktrust's 2007 survey of school library spending (Creaser and Travis 2008) recommended spending £10 per pupil per academic year on library books in primary schools, £14 in secondary schools. The research found that 61% of primary schools and 92% of secondary schools reported a total library spend below these figures (School Library Association 2012).

"Librarians are responsible for imparting the enabling skills that are prerequisite to information seeking and knowledge acquisition across the curriculum, while classroom faculty have the responsibility of teaching those skills that are required for subject specific inquiries and research" (Grafstein 2002 p. 200).

It is ultimately the teachers' responsibility to ensure that students are being instructed on how to carry out research, even if teachers are unsure about teaching information literacy skills themselves. Teachers may not be aware that a trained librarian has the capability to work with them to teach students stronger research skills. Librarians need to illustrate how they can play a role in teaching information literacy skills. Information skills instruction provided by the school library is inconsistent from school to school, because the level of library provision differs across the country.

2.18 Pedagogical Theory

As discussed in the Introduction, pedagogical theory is crucial to understanding the teaching and learning of information literacy. Using pedagogical theory also creates a partnership for teachers and librarians, so that they are 'speaking the same language', and brings the realisation that librarians are academic, rather than administrative support. The pedagogical theory that most influenced this research was constructivism; constructivists argue that a "central role of schooling involves engaging students in the knowledge production process. A central dimension of teaching in this context involves engaging students in analysing, interpreting and constructing a wide variety of knowledge emerging from diverse locations" (Kincheloe 2005, p. 3). Although constructivism is not a theory of teaching, Twomey Fosnot (2005) notes that the key in constructivism for teaching is that it allows students to learn skills in meaningful ways, with practice, by building one skill upon another and as a result of the students finding patterns, asking questions and defending their strategies and ideas (p. ix). Information literacy skills should be taught in a way that they can be applied in a variety of subjects, not just for research tasks. If the skills are constructed, not only during a scheduled library period, but during the course of regular lessons, those skills become embedded into the curriculum, and are more likely to be transferable across discipline areas.

Two theorists on thinking and learning were influential for this research. Carol Collier Kuhlthau, who applied constructivist theory in her Information Search Process model, and Benjamin Bloom with his taxonomy of educational objectives, which acknowledges that new knowledge builds on what is already known.

Kuhlthau's research of student information seeking process revealed a series of phases that the learner confronts during the information search process. These phases are: initiation, selection, exploration, formulation, collection and presentation. Each phase "represents the task considered most appropriate to move the process on to the subsequent stage" (Kuhlthau 1993 p. 342). The phases of the process take into account the three realms of human experience: the affective (feelings), the cognitive (thoughts) and the physical (actions) within each stage (Ibid, p.342). Kuhlthau acknowledges that constructing learning is not isolated to a cognitive process, and the feelings and the actions of the students while they are taking on new challenges and creating new knowledge should be considered. Kuhlthau's ISP was outlined in section 2.15.

Bloom's taxonomy of educational objectives was used to create the learning objectives for information literacy framework in Chapter 5, section 5.13. The significance of Bloom's taxonomy is that it is based on the idea that cognitive operations can be ordered into six increasingly complex levels. What makes it a taxonomy is that each subsequent level depends on the students' ability to perform at the levels or level that precedes it (Eisner 2000). This is important for two reasons: First, Bloom's taxonomy follows a constructive approach to education which is the idea that in order to

achieve higher order skills, students must start at the most basic level, and work their way up, until the skill becomes embedded in their cognitive process. Secondly, Bloom's taxonomy, when applied to information literacy skills, follows the researcher's view that beginning to learn information literacy skills from the start of primary school will create information literate students by the end of their primary school years..

2.19 Summary

Although information literacy is recognised as an important aspect of overall literacy, it lacks support and consistent instruction, especially in primary schools. This inconsistency could put students in England at a disadvantage in secondary school and higher education. School library provision may be one way to ensure that students receive information literacy skills instruction, but with inconsistent library provision throughout the country, it is unlikely for all primary school students to have reliable instruction of these skills.

School library provision in primary schools remains inconsistent, and the threat of closure to Schools Library Services in England leaves little reliability for schools if they want to provide their students with library resources. The status of librarians as non-professionals also presents a challenge for the value of school libraries; qualified librarians may be better able to provide evidence that supports the library's impact on student achievement.

It was important to examine the different methodologies used in the published research about school libraries so that an appropriate approach could be used in this study. Extensive reading was conducted in order to learn more about how different methodologies worked, and to create a research design that would differ from the studies carried out previously. Many of the studies, particularly internationally, analysed testing data to determine their libraries' academic value within the school. Studies completed in the UK included more survey and interview data, however, the research relevant to this study did not include the direct observation of students working with information seeking in a library context. The next chapter will discuss the methodology chosen, and how that strategy was best suited to the research.

Chapter 3 Methodology

3.1 Introduction

This research study used qualitative research, and more specifically, ethnographic case studies to analyse the data. Data were collected by observing students and how effectively they were able to locate, evaluate, manage and communicate information from a variety of sources. Students were observed during a research topic assigned by their teacher in the classroom. The study also interviewed students and educators about their experiences and perceptions of information literacy. School documents about test scores, curriculum, student and community demographics and their level of library provision were collected to create an in depth case study about each selected school. In primary schools with library provision, there was an investigation of library policies, such as: hours of library operation, budget, and employment of a dedicated librarian, usage by pupils, and usage by staff. Head teachers were interviewed to find out whether the library has had any impact on overall student achievement, reading skills, learning in general, and why they do or do not employ a dedicated librarian. In primary schools without provision, head teachers were interviewed to determine their attitudes to library provision and how they successfully taught information literacy skills to their students without the support of a librarian. Table 4 illustrates the data that were collected during the study in each school.

3.1.1 Research Questions

Four research questions were addressed:

- Does library provision at primary level contribute to students' information literacy skills development?
- Do students who receive library provision in primary school have higher levels of information literacy skills than students without library provision?
- How do the attitudes and perceptions of head teachers determine the level of school library provision?
- Can good practice in information literacy skills instruction be identified in any of the schools studied?

Knowledge of previous research and theory, which was presented in the literature review in Chapter 2 helped to focus on the problem of interest and select the unit of analysis best suited to answer the research questions. The purpose of this research was to investigate the contribution the primary school library makes in the development of students' information literacy skills. The purpose of the research determined the research methodology chosen. The following sections discuss the choice of qualitative methodology, ethnographic case studies, and the methods used to support this research design, including the reasons for the choice and the philosophical

underpinnings of case studies, other methodologies that were considered, and the methods that were used to collect and analyse data. Information about the research design is also provided in the following sections.

3.2 Philosophical stance

To guide their views and ultimately their work, qualitative researchers often articulate a philosophical stance that helps them make their assumptions more explicit, to the researchers themselves, and to potential readers (Howell Major & Savin-Baden 2013). A philosophical stance suggests a view of reality and knowledge that in turn informs researcher perspectives, approaches, and methods. (Howell Major & Savin-Baden 2013, p.54). The philosophical stance for this research is naturalism, also known as interpretivism, which “seeks to understand social reality in its own terms; ‘as it really is’; provides rich descriptions of people and interaction in natural settings” (Gubrium and Holstien 1997, p.41).

The study involved participant observations in a Year 6 class for the duration of a research based assignment. This is an assignment they would have been required to complete even without the presence of the researcher; the researcher did not manipulate the scene in any way, which is another characteristic of naturalistic enquiry (Lincoln and Guba 1985).

Naturalistic enquiry also elects to allow “the research design to emerge, rather to construct it a priori, because it is inconceivable that enough could be known ahead of time about the many multiple realities to devise the design adequately” (Lincoln and Guba 1985, p. 41). This study did not have a theory constructed from the start; the main purpose was to investigate any contribution the school library makes to information literacy. By using naturalism within a qualitative research strategy, it allowed the data from each school to inform the contribution that school libraries make.

3.3 Ontology

The projected outcome of this study was that there would be an observable difference in how the students used information during a research project based on whether or not they had library provision under the supervision of a librarian. In order to arrive at this outcome, comparisons needed to be made between schools with differing school library provision. In order to determine how the students used information during a class assignment, it was necessary to observe the students during these lessons so that how they used information could be interpreted and analysed. The ontological stance for interpretive research is explained by Lincoln and Guba (1985) as a position that “asserts that there is a reality, but one cannot know it fully” (p. 83). Interpretive ontology suggests that reality as we know it is constructed, interpreted and experienced by people in their interactions with each other and with wider social systems (Tuli 2010). While it is recognised that there is a reality in this research, it is understood that there is a limit to what is knowable about that reality: the students are being studied

while they are in school under the influence of a teacher, who may not have allowed the researcher to observe certain elements of the research lesson. The students or interviewees may not have provided complete information during interviews. These are understood to affect the data collected, and what may be known about information literacy skills instruction in primary schools.

In addition, some of the data collection, like the borrowing statistics of each school with library provision, provided information but was not reliable enough to be interpreted into findings. Borrowing statistics may have look higher than average when compared with other schools, but it did not tell the reader whether or not the students borrowing the books were actually reading the books they are issued. It was not possible to know this information without talking with every student who borrowed books, which was not possible within the scope of this study. Though we can use the statistics to gain some understanding of the overall borrowing habits, it is not possible to know how those statistics contributed to the reading culture of the school.

3.4 Epistemology

Researchers also consider their views of knowledge as well as their views of how knowledge may be uncovered. Epistemology is a branch of philosophy concerned with knowledge and how it may be known (Honderich 1995). Interpretivism is a term given to a contrasting epistemology to positivism. While positivism is concerned with the testing of theories and hypotheses, interpretivism proposes that as much as possible, “the social world should be studied in its ‘natural’ state, undisturbed by the researcher” (Hammersly and Atkinson 2007, p. 7). Interpretivists share the belief of a subjectivist epistemology, which assumes that we cannot separate ourselves from what we know, and the investigator and the object of investigation are linked such that who we are and how we understand the world is a central part of how we understand ourselves, others and the world.

Interpretivists believe that the natural setting should be the primary source of data. Though the researcher aimed to be a participant in the observed class with the students, by asking questions and moving around the room where the students were working, the assignment that they were carrying out was one that would have been assigned whether or not the researcher was present. The researcher was not part of the task development or instruction, so for the purposes of this research, the classroom was the natural setting being observed.

3.5 Qualitative Research Strategy

Methodology is the link between the paradigm related questions and the methods employed to answer those questions. Methodology is defined by O’Donoghue (2006) as “the strategy, plan of action, process or design lying behind the choice and use of particular methods and linking the choice of methods to the desired outcomes” (p.12). The methodology employed for this study relies on

qualitative data, more specifically, case studies, and used qualitative methods to collect and analyse data.

Qualitative research was chosen for this study because it was an opportunity to observe students using information directly to see how they interact with information during the research process. Semi-structured interviews provided first-hand information about the perception of librarians and their role within the school. The observed research task was set by the classroom teacher, and would have been completed whether the researcher was present or not.

Qualitative research is a way of exploring and understanding the meaning individuals or groups ascribe to a social or human problem. The process involves “emerging questions and procedures, data collected in the participant’s setting, data analysis inductively building from particulars to general themes, and the researcher making interpretations of the meaning of the data”(Creswell 2009, p.4). Traditional, or quantitative research, is based on the assumption that there is a single, objective reality that we can observe, know and measure. In contrast, qualitative research assumes that there are multiple realities that the world is not an objective thing out there but a function of personal interaction and perception. “It is a highly subjective phenomenon in need of interpreting rather than measuring” (Merriam 1988, p. 17). Likewise, most investigations that describe and interpret social processes “require that the researcher become intimately familiar with the phenomenon being studied” (Merriam 1988, p. 19).

Other characteristics of qualitative research are as follows:

- Usually emphasises words rather than quantification in the collection of data;
- Predominantly emphasises an inductive approach to the relationship between theory and research, in which the emphasis is placed on the generation of theories;
- Has rejected the practices and norms of the natural scientific model and of positivism in particular in preference for an emphasis on the ways in which individuals interpret their social world; and
- Embodies a view of social reality as a constantly shifting emergent property of individuals’ creation (Bryman 2008, p. 22).

The studies referred to in the literature review relied largely on quantitative data: school library research from the USA looked at the relationship between nationalised test scores and levels of school library provision to determine the academic impact of a school library for the students. A study by Streatfield (2012), did include some qualitative data from interviews of school personnel in addition to test score data, however, there were no direct observations of students during the research.

Unlike the “Colorado” studies carried out in the United States, (Lance et. al 1993, 2000), and the Streatfield (2011) study in the UK, the theory emerged from the data, which is why a qualitative, inductive approach was favoured. This study aimed to compare schools’ library provision and information literacy skills in a case study report, rather than with numerical or technical data. By studying students’ research practices during a normal class session, the researcher was looking for ways in which the presence of a library, and more specifically, the librarian, contributed to the development of information literacy skills in year 6 students.

Qualitative research uses an inductive approach, which works as a ‘bottom up’ approach, beginning with an idea, the field is then observed for patterns that may emerge. A tentative hypothesis is then generated, and from that, some general conclusions and theories can be drawn.

This study of school libraries did not serve to confirm a theory; the purpose was to investigate the ways in which primary school libraries contributed to information literacy skills, and so the outcomes of the analysis were the conclusions drawn about the school library’s role by the observations of primary school students in three schools who were provided with differing levels of library services. The deductive approach was used in school library research in other countries; school library and student achievement was measured quantitatively and the theory that school libraries positively impact student achievement was confirmed as a theory.

3.6 Choice of Ethnographic case studies

Ethnography was chosen for this research because it is an approach that “aims to create an understanding of those being studied” (Howell Major & Savin-Baden, 2013, p. 196). Data collected from each of the schools through observations of students carrying out a research based assignment in their natural school environment, interviews with head teachers and teachers, and school documents was information used to create in depth case study reports of each school. A rich picture emerged of the students’ information literacy skills, and from that picture, the ways that library provision contributed to those skills could be discussed. It was necessary for the researcher to spend time in each school and be part of the school community as much as possible; the idea, as noted by Howell Major and Savin-Baden (2013), was that through participating with the community it was possible to understand the community better.

3.7 Philosophy of Ethnography

David Silverman (2011) states “ethnography, like any other methodology, is not simply an instrument of data collection” (p. 15). Before the advent of ethnographic methodology, ethnologists did not collect data by means of direct observation, instead they used data from governmental sources, and they examined statistics, archives and missions (Silverman 2011). Bronislaw Malinowski (1884-1942) is regarded as being the first to systemise ethnographic methodology, describing the principles

of ethnography as a way to grasp the native's point of view, his relation to life, to realise his vision of his world.

The term ethnography comes from the Greek 'ethnos', which is translated as 'folk'. Ethnography is the study of people, cultures and values. It is an approach that requires intensive fieldwork to gain a detailed and comprehensive view of a social group and its setting (Howell Major & Savin-Baden 2013, p. 196).

Hammersley and Atkinson (2007) describe the data collection in an ethnographic study as involving "the researcher participating, overtly or covertly, in people's lives for an extended period of time" (p. 3). They also define the following features that usually characterise ethnographic work:

- People's actions and accounts are studied in every day contexts, rather than in a context manipulated by the researcher. In the case of this research, the observations will take place in the students' normal place of school work; the classroom, library or computer suite. The researcher takes on an observatory role and does not interfere with the normal working of the class.
- Data are gathered from a range of sources, including documentary evidence, participant observation, and formal or informal interviews. Information about school test scores, Ofsted ratings and library provision are all some of the data that will be collected in addition to the observation of students and school staff member interviews.
- Data collection is largely unstructured: it does not follow a fixed and detailed research design specified at the start. In addition, the categories that are used for interpreting what people say or do are generated out of the process of data analysis. In this research study, the research design has been left unstructured in order to collect any data that might be relevant, no matter how 'insignificant' it may seem. The difference in the latter instance is that categories have been determined, however, the data collected will be analysed to determine which categories they best fit into.
- The focus is usually on a few cases, fairly small scale. Three schools will be selected for study, two to three members of staff interviewed, and the number of students observed will most likely be under 30.
- The analysis of data involves interpretation of the meanings of human actions; what are produced are descriptions, explanations and theories. This study will produce case studies (see Chapter 4), which will be descriptive and used to compare the findings from each school.

Though ethnographic researchers may have a 'foreshadowed problem' in their minds when they begin their research, their orientation is an exploratory one, and the questions and theories they may have had at the start of their research may change as they make observations of their chosen group

(Hammersly and Atkinson 2007, p. 3). In this research, the foreshadowed problem was whether the school library makes a contribution to students' development of information literacy skills, and the data collected from the observations and the interviews were analysed to address this problem.

3.8 Case study reporting

The decision to use a combination of ethnography with case studies was based on Creswell's (1998) suggestion that "designates case study as a unique research approach when he juxtaposed it with biography, ethnography, phenomenology and grounded theory." Data were collected using participant observation and semi structured interviews; two tenets of ethnographic research. The data was then used to compile an individual case study about each school involved in the study. "While ethnography is a distinctive approach, it can be linked with either the case study or grounded theory approaches. A case study can be approached ethnographically" (Robson 2011, p.146). Ethnography was the approach used, but a case study reporting mode was used to present the data collected.

Case study reporting is an element of the naturalist paradigm: "the case study reporting mode (over the scientific or technical report) is more adapted to a description of the multiple realities encountered at any given site" (Lincoln and Guba, 1985, p. 42). This is because of the following attributes:

- It is adaptable to demonstrating the researcher's investigation of the site and consequent biases that may result.
- It provides the basis for both individual 'naturalistic generalisations' and transferability to other sites.
- It is suited to demonstrating the variety mutually shaping influences present.
- It can picture the value positions of researcher, substantive theory, methodological paradigm and local contextual value. (p. 42)

Another reason for using case study reporting mode was that a case study tends to be bounded, which means that it is focused and intensive as well as narrow in scope. It also means the case has clear boundaries or limiters. In this research, there are several binding factors: the observations were only long enough for a research project to be completed, only three schools were chosen for study, and therefore, the numbers of interviews conducted were limited. This kind of binding differs from ethnography, which involves "an immersion in the particular culture of the society being studied so that life in the community could be described in detail" (Robson 2011, p. 142). The participants in an ethnographic study are studied for long periods of time, two or more years. This is not realistic for many real world studies (Robson 2011), hence this research used a combination of ethnographic techniques, such as participant observation, along with case studies, which were able to be bound by time restraints.

The foreshadowed theoretical proposition determined for this research was that the primary school library played a role in the development of information literacy. This foreshadowed proposition meant that an analytic strategy identified by Yin (2009) was determined to be effective for this research: the development of a descriptive framework for organising the case study report.

With a developed framework, the case study reports were analysed by using thematic analysis, which, according to Bryman (2008), is not an approach to analysis that has “an identifiable heritage or that has been outlined in terms of a distinctive cluster of techniques”. The reason for using this type of analysis is that it allowed the researcher to search for themes in the observations of students, and again in the interviews with head teachers, class teachers and librarians from each school. While thematic analysis lacks a clearly specified series of procedures, Ryan and Bernard (2003) do suggest searching for the following themes when using this type of analysis:

- Repetitions: topics that occur over and over;
- Transitions: the ways in which topics shift in transcripts and other materials;
- Similarities and differences: exploring how interviewees may discuss a topic in a different way.

In this type of analysis, the focus is on “what is said rather than how it is said” (Bryman 2008, p. 553). In accordance with the recommendations discussed by Ryan and Bernard above, in this research, the following themes were the focus for observations:

- Understanding the information task;
- Use of sources;
- Finding and evaluating information;
- Managing and using information;
- The library’s role.

Case study is not often recognised as a research design in its own right, one that can be distinguished from other approaches to a research problem. Some of the confusion stems from the fact “that various sources equate case study research with fieldwork, ethnography, participant observation, qualitative research, phenomenology, and hypothesis generation” (Merriam 1988, p. 5).

Case studies are useful for educational research because they allow the researcher to examine a specific phenomenon, such as a program, an event, an institution or a social group.

“A case study is an examination of a specific phenomenon” (Merriam 1988, p. 9). In this research, the case study was used to examine the role of the school library in the research process, and whether or not provision of a library contributed to the way that students carry out research assignments. As Yin (2009) observes, case study is a design that is suited to situations where it is impossible to

separate the phenomenon's variables from their context. The schools were each examined as a whole; the study was not reliant solely on observation and interviews, some of the data collected and analysed came from financial reports and book borrowing statistics because they illustrated wider pictures of each school, and the way the value of the library could contribute to academic attainment. Merriam (1988, pp. 11-12) outlines the four ways that educational case studies can provide meaning for a particular social phenomenon:

Case study features	Meaning
Particularistic	The case study focuses on a particular situation, event, or phenomenon;
Descriptive	The end product of the case study is a thick, rich description of the phenomenon under study;
Heuristic	The case study illuminates the reader's understanding of the phenomenon under study. A case study can bring about the discovery of new meaning, or confirm what is already known;
Inductive	For the most part, case studies rely on inductive reasoning. Case studies discover new relationships, concepts and understanding, rather than verify predetermined hypotheses.

Table 1 Case study features, according to Merriam (1988, p. 11-12)

Unlike experimental research, case study does not claim any specific methods for data collection or analysis (Merriam 1988). Any methods can be employed in a case study from interviews to questionnaires. In this study, observation of students and interviewing were the two main methods in gathering data. This design was chosen because insight, discovery and interpretation was desired over hypotheses testing.

3.9 Other methodology considered

A mixed methods approach was considered for this research, because it was initially thought that a quantitative aspect would strengthen the results of the study. The priority would have been on the initial qualitative phase, with the quantitative phase playing a secondary role to expand on the initial results (Creswell & Plano Clark, 2011). In order to generalise across other schools in England, it was originally intended that an assessment piece would have been developed that could have been used to assess the information literacy skills of year 6 students in every school. As a result, a two phased approach was considered, which would have involved a first phase of qualitative data collection and analysis in the form of student observations and staff interviews to create case studies of each of the three participating schools, followed by a second phase of quantitative data collection and analysis in the form of an information literacy assessment instrument that will be tested during the second phase and expand the results of the first qualitative phase.

The following sections discuss the reasons why the quantitative phase of this study was neither necessary nor reliable for this study.

Mixed methods research presents a choice in the worldview in which the research sits, but Tashakkori and Teddlie (2010) suggest that at least 13 different authors embrace pragmatism as the worldview or research paradigm for mixed methods research. Tashakkori and Teddlie (2010) also formally linked pragmatism and mixed methods research, arguing the following points:

- Both qualitative and quantitative research methods may be used in a single study
- The research questions should be of primary importance – more important than either the method or the philosophical stance that underlies the method.
- The forced choice between post positivism and constructivism should be abandoned.
- The use of concepts such as “truth” and “reality” should also be abandoned.
- A practical and applied research philosophy should guide methodological choices.

Another option in mixed methods research is to use multiple paradigms, which is acceptable as long as the researcher is “explicit in their use” (Creswell & Plano Clark 2011, p. 45).

An assessment design was considered because it may have been a way to possibly measure the information literacy of students. However, the assessment tool was discounted for this particular research because without a framework of information literacy, a stand-alone assessment is not educationally sound. The overall aims for assessing information literacy are to increase student learning, to provide accountability, and/or to strengthen instructional programmes” (Oakleaf and Kaske 2009). An assessment used as a test for the purpose of this research does not support this statement by Oakleaf and Kaske. There are too many factors that could have influenced the outcomes of a test that made an assessment a less reliable form of measurement. Filer and Pollard (2000) acknowledge this, and state that:

“Research over many years has shown that in assessing pupils’ academic skills teachers inevitably include a measure of other attributes and dispositions. Pupil’s behaviour during a test, teacher knowledge of a child or its responses to a previous test, teacher interpretations of test material and pupil responses, the influence of other pupils are just some of the many contextual factors affecting scores or outcomes” (p. 79).

The researcher did not want to manipulate the scene, or change the dynamic of the classroom because it was felt that it would decrease the honesty of students’ responses during the observation period. If the researcher had given them an assessment, it could have resulted in mistrust from the students, which may have led to a lack of rapport within the class. Prior teaching experience led the researcher to believe that the students would feel more comfortable with a relaxed dialogue during the

completion of their assignment, rather than with being assessed on information they may or may not have been comfortable with. The following section will discuss assessment behaviour in more detail.

Two types of assessment were considered for this research. The first was a knowledge based Information Literacy test, “which measures one’s IL abilities with a list of questions to answer, more often than not in the form of multiple choice questions, with a standard list of correct answers for markers to check against” (Chang, et al, 2012, p. 21). This type of test was appealing because it was general in nature, and it was objective: the answers are not open to interpretation by the raters. The problem with using this assessment in a case study design was that tests “put students in hypothetical situations that students may have been taught to answer and hence do not always examine their actual IL practices which may be a better reflection of their skills” (Chang et al, 2012, p. 21). Additionally, from an educational stance, giving students an assessment for which they have not been prepared, may ‘set them up to fail.’ The researcher’s knowledge and experience with good teaching practice informed the decision to abandon an assessment because a high rate of test ‘failure’ may have led to students being less open to dialogue during the observation sessions, but could also lead to problems with teachers or the head teacher. If they perceived that their students were failing in information literacy, it may have led them to decline from further study, or to feel somehow judged by the researcher. The goal of the observations and interviews was to make every effort for the participants to feel that the researcher was viewing the school as objectively as possible.

The second type of assessment that was favoured at the beginning of the research design was a performance assessment test. This assessment “increases the relevance of IL instruction and uses authentic assessment” (Chang et al, 2012, p. 21). In the original design, a rubric would have been developed based on an existing information literacy instructional framework, measuring students’ observable performance indicators, such as use of keywords, while they were working on a project. Callison (2000) uses a description to define rubrics: “Full model rubrics are formatted on a grid or table. They include criteria or target indicators down the left – hand side of the grid, and list levels of performance across the top” (p. 34). Rubric assessments are beneficial to students because they “allow students to understand the expectations of their instructors” (Oakleaf, 2009, p. 969). They also “provide direct feedback to students about what they have learned and what they have yet to learn” (Oakleaf, 2009, p. 969). Although this type of rubric does provide an authentic way of assessing information behaviour while it is happening, it is not likely to be accessible for all librarians or teachers who want to use it because rubrics are typically developed specifically for an individual class or assignment. Also, as Oakleaf stated, rubrics are designed to feedback to students about their performance, and they would not have been given feedback at the end of the observation because they had not been presented with the information literacy skills criteria from the start of the project. Additionally, rubrics are subjective, so an assessor could potentially interpret a behaviour in a way that ‘fits’ the performance indicator to gain a more favourable result; two people could rate a student

differently. Generally, as is the case for the Knowledge Test discussed above, rubrics are provided at the beginning of an assessed task, and would be based on material students had been learning in their previous lessons. A rubric presented with no prior teaching and with no intention of feedback was not an educationally sound decision. The researcher did not want to widen the gap between teachers and librarians by ignoring good teaching practice in favour of results.

Based on the reasons discussed, it was decided that although a performance test and a rubric style assessment would be excellent tools for use by an existing teacher or librarian to measure information literacy instruction during established information literacy lessons, using these types of assessments during the observations with students was abandoned in favour of employing a research design that would allow the researcher to collect data, but also build rapport within the school, with both students and member of school staff. The following section details the research design that was implemented after consideration of alternative methods.

3.10 Research design

3.10.1 Pilot Study

School A was initially chosen for carrying out the pilot study, however, because it was challenging to gain access to schools, School A eventually became part of the final study as well. This did not detract from it also being a pilot, and there were changes to the research methods based on the observations and interviews held in the initial session.

The pilot study assisted in the development of the case study design; the initial studies allowed for relevant modifications to be made. It also assisted in the refinement of data collection and analysis with respect to both the content of the data and the procedure to be followed (Yin 1989, p. 80-81). Though the pilot was similar in design to the ultimate data collection plan, it was broader, less focused (Yin 1989, p. 81). This was to allow the subjects in the study to inform the design with the activities they completed and inquiries that they posed during the pilot.

The initial design, which was to observe students during a research activity assigned by the class teacher, and the interviews with head teachers and teachers, remained consistent in each of the three schools in the study. However, once the first session in the pilot school was completed and analysed, changes needed to be considered in order to collect the best and most relevant data, because the observer's time in the class was limited. In order to collect relevant data in an hour long session, the researcher determined that focusing the observations on key areas of information literacy skills was necessary. An observation framework was developed as a result of the analysis of the first session, which was helpful in the data collection to focus attention on the most prominent themes. Additionally, the framework was designed so that each would be treated the same, and the data collected were consistent across all three schools. During the analysis, the key areas that were identified were: the students; ability to identify the task they were undertaking, and their ability to locate, evaluate, manage and communicate the information needed for the project they were assigned. The key areas that were revealed after the first analysis, were determined to be the criteria that would then make up the observation framework. Student observation data was documented in journal form and it was discovered that good practice was to analyse each transcript using initial coding (discussed in Section 3.16) after each class session.

The first semi-structured interview held in the pilot school was with the head teacher. There were interview questions written prior to the interview, however, the interview was lengthy, and strayed away from the interview questions several times during the course of the interview. This was a result of an existing relationship with the head teacher in this school, and although it provided relevant data, it was recognised by the researcher that interview questions needed to be more concise, and also fit within a shorter time frame so that head teachers would not feel pressured to spend hours responding

to questions. It was also acknowledged that the same rapport would not exist between researcher and respondent, so interview questions were crafted to guide the conversation comfortably, allowing for some free dialogue, but also so that the researcher could target areas of importance and collect relevant information. The following sections will detail the observation and interview frameworks that were created as a result of the pilot study.

3.10.2 Observation framework

A framework for observation was created in order to use the time in each of the observation sessions efficiently, and to maintain consistency in all three schools. From each of those labels, patterns emerged from all three schools that offered a description for each of the categories.

In addition to descriptions of each activity being developed from patterns in each of the observations and interviews, the framework was established through the theoretical propositions of the research, which was to discover whether or not a school library and librarian contributed to the IL skills of year 6 students. The characteristics of information literacy (define, locate and evaluate, apply and acknowledge) were also used to create categories for analysis. The observation framework is as follows:

Label 1: Task definition	Description: class teacher gave the students their assignment prior to the start of the research session, students identified what they needed to do to complete the assignment.
Label 2: Finding and Evaluation	Description: Students were advised which resources to use to find the information for their assignment, students looked at the information and decided which information was best suited to the assignment.
Label 3: Application and Acknowledgement	Description: Students planned how they would present the information in a final project, and the researcher observed whether or not the students cited the information they used.

Table 2 Observation categories

This framework was developed in order to maintain consistency in all three schools. A cross case analysis was possible because the actions observed followed the same structure.

3.10.3 Interview framework

The interview framework followed the same procedure, however, in the case of the interviews, there was no theoretical proposition to work with. The descriptions developed for the interviews were based on the response data collected by each interviewee. The interview questions were semi structured, however, they remained similar in each school, again, to maintain cross case comparison as closely as possible. The themes identified from the analysis are described in table 3:

Label 1: Perception of the library	Description: The view of library provision as an academic resource for the whole school.
Label 2: information literacy instruction	Description: How the teaching of information literacy is managed in each school, and the importance given to students knowing these skills.
Label 3: The presence of a librarian	Description: How the presence of a library professional is viewed by members of staff.
Label 4: Use of resources	Description: The availability of sources in different formats for students to use, and what teachers favour using with students to complete information literacy tasks.

Table 3 Interview categories

3.11 Sample

Cohen et al (2011) discussed the problems faced by researchers when deciding the sampling strategy to be used for a study. The five key factors to consider in sampling are:

- The sample size;
- The representativeness and parameters of the sample;
- Access to the sample;
- The sampling strategy to be used;
- The kind of research that is being undertaken. (p.230).

Furthermore, the researcher considered the importance of whether or not the sample represents the whole population in question, if it is to be a valid sample. In this case, the researcher knew that a small sample size of three schools was not representative of the entire population, however, it was more important that the study itself be generalizable across other possible samples in future research.

The schools selected for the study further identified the boundaries of the case study, the time frame of the research project set by the teacher, the number of times the researcher was given access to the school. Miles and Huberman (1994) emphasize that sampling is important for later analysis. The choice of schools, the interviews, and the length of time in the school all place limits on the conclusions that can be drawn.

Schools for the main study were selected using criterion sampling; each case met with some criteria for participation, such as the level of library provision, the employment of a librarian and the subscription to Education Library Services. This criteria was established by the researcher so that comparative data could be analysed to find out what type of library provision supported information literacy.

Students were observed in situ in three different schools which were chosen, based on their library provision, using criterion sampling, which is described by Miles and Huberman as “all those who meet some stated criteria for membership of the group or class under study” (Miles and Huberman 1994 p. 28). The research from the USA (Lance et al, 1993, 2000) found that qualified staffing and a variety of resources have a positive impact on student achievement. Streatfield, Shaper and Rae-Scott (2010) also found that subscriptions and regular use of Schools Library Services (SLSs) also have positive relationships in supporting reading in schools. The findings from those studies, in addition to the definitions of a good school library discussed in the literature review assisted in creating the criteria for school selection.

Every effort was made to find schools that had similar demographic populations and sizes in common. This decision was based on 6 and Bellamy’s (2012) explanation that problems occur when cases are compared across “significant geographical, historical or cultural gulfs, because it is difficult to find reliable ways of establishing whether we are really looking at relevantly similar phenomena” (p. 119). While this is the ideal, the reality was that the schools that responded with interest to the study were the ones that were ultimately chosen to participate; it was difficult to recruit schools, and also challenging to maintain communication with them once they had agreed to participate.

3.12 Ethical Considerations

The principle of informed consent entails the implication that even when people know they are being asked to participate in research, they should be fully informed about the research process (Bryman, 2008). As the Social Research Association (SRA) Ethical Guidelines suggests:

“Inquiries involving human subjects should be based as far as practicable on the freely given informed consent of subjects. In voluntary studies, subjects should not be under the impression that they are required to participate. They should be aware of their entitlement to refuse at any stage for whatever reason and to withdraw data just supplied”

Homan (1991, p.73) has observed that implementing the principle of informed consent may not be completely possible and describes two major points:

- It may not be possible to present prospective participants with absolutely all the information that might be required for them to make an informed decision about their participation.
- In ethnographic research, the researcher is likely to come into contact with a wide population of people, and ensuring that all have the opportunity to consent is not practical, because it may be disruptive to do so.

Researchers prefer to obtain the informed consent of participants by getting them to sign informed consent forms (Bryman 2008). Loughborough University requires the submission of a research proposal to be approved by the Ethical Approvals (Human Participants) Sub – Committee. As part of this application, student researchers are required to obtain written consent from all participants in the research. In this research project, written consent was obtained from all the students’ parents, because the students are under 16 years old, the students themselves, and from any adult who agreed to be recorded in an interview.

Gaining access to the schools recruited for the study was more challenging than the researcher had anticipated. It was not the case that schools were reluctant to participate because of any ethical or moral issues, but rather that the time frame of April-July desired by the researcher was a difficult time for schools to accommodate a visitor. 13-17 May 2013- was the scheduled time for the year 6 SAT exams, meaning that from the return from the Easter holiday in April, until that week, teachers were not beginning new research tasks, they were revising with the students in preparation for those exams. Another consideration when gaining access to the schools for the study was that of perception; it was important that any school recruited was aware that they would not be cast in a negative light because of their lack of library provision.

An application to the committee was submitted in November, 2012 as required by the Loughborough University policy regarding the work with human subjects, and the application was accepted. Prior to any data collection, the researcher spoke to the students in each year 6 class to explain the procedures of the study, and distributed informed consent forms for both the students and the parents (See Appendices 1-4). The students were all required to sign if they gave their consent, but parental consent forms were only required if they did NOT want their child to participate in the study. Only one parent in one of the three schools did not grant permission for their child to participate, so the majority were allowed to be observed and asked about their work.

3.13 Data Collection

The table below outlines the data to be collected in each of the three schools, where the information was found, and how the data helps to create a thick description of each school:

School Data to be Used	Where Found	What it supports
Ofsted ratings	Ofsted website, head teacher interview	Ofsted ratings were used to determine how well the chosen school did in comparison, and also to find out information about whether or not they were credited as having a school library
Level of library provision	interview	The library provision in each of the schools is necessary to determine what information literacy skills are developed by the library, and how those skills are instructed
Subscription/ Use of School Library Services	interview	The use of school library services will answer questions about the resources available to students, as well as if the service contributes to information literacy in the school.
Student information behaviour	observation	The differences or similarities of student information behaviour will indicate their levels of information literacy.
Head teacher perception on libraries	Interview, library provision	The support of the head teacher of the library is a significant factor in the level of library service provided to students.
Teacher perception on libraries	Interview, use of the library	This helps to understand if teachers would feel supported by a librarian, or if a relevant stock would make a difference to their teaching.
Student use of resources	Interview, observation	Observing what kinds of resources students choose when doing research will give an indication of how they were taught to complete information searching tasks.

Table 4 Collected data

3.13.1 Observation

The primary method of data collection during this research was through participant observation, which is defined by Lofland and Lofland (1995) as “the process in which an investigator establishes and sustains a many sided and relatively long – term relationship with a human association in its natural setting for the purpose of developing a scientific understanding of that association” (p. 18). Classic participant observation includes looking, listening and asking (Lofland and Lofland 1995). In this research, the researcher adopted a participant – as – observer role in the classroom, which is described in Gold’s (1958) classification of participant observer roles as being a functioning member of the social setting, and the participants are aware of the researcher’s status as a researcher. The purpose of the observation was to take written field notes on the activities of the students who are completing a research task as part of a class assignment. The researcher asked the students questions, and talked with them about their topics during each session as they were working.

Observations of students were conducted in three schools to discover how year 6 students find and use information. The decision to use observation as the primary method for data collection was because it is a strategy that has not been employed in the studies that have been used as examples of successful school library studies. Additionally, observation offers an opportunity to watch students use information skills in a normal classroom setting which means that the results are not manipulated in any way. Observation of students was chosen as a method because it is rooted in naturalism, which is “a model of research which seeks to minimise presupposition in order to witness subjects’ worlds in their own terms” (Gubrium & Holstein 1997, p.34). Gubrium and Holstein also emphasise the importance of “studying the social world in its ‘natural’ state, undisturbed by the researcher, because better results come from studying people in their everyday contexts” (1997, p. 34).

“Field notes are the traditional means for recording observational and interview data” (Hammersley and Atkinson 2007, p. 141). In each school session, all the observations with students were recorded in handwritten notes during the observation. It is recognised that “field notes are selective” (Hammersley and Atkinson, 2007, p. 142), however, the researcher tried to capture as much in writing as possible during the observation session. The researcher made notes during the actual observation; this eliminated the possibility of forgetting crucial information from the time of the observation to the time of typing up the notes. Making notes during the observation was also assistive for the analysis of the data: field notes would be typed up immediately following each observation, so the coding of each observation was completed shortly after the observation was finished.

Although observation research was overt, meaning that the students knew why they were being studied, note taking had to be managed carefully. It was noticed during the study in School A, that

students were more apprehensive about answering questions while the researcher was carrying a notebook, but were more open when the notebook was left on a desk near the researcher. This meant several trips back and forth during conversations with students, but possibly resulted in more open dialogue with students.

Other school library studies relied on document data to assess the library's role in student achievement, but did not observe students to determine how they used their library, or how the presence of a library was interconnected with teaching and learning in the school overall.

3.13.2 Interviews

Semi – structured interviews are one of the main types of interview in qualitative research (Bryman 2008), and the one best suited to this research because Bryman (2008) describes the semi – structured interview as flexible, where the interviewer has a list of questions or specific topics to be covered, but the interviewee “has a great deal of leeway in how to reply” (p. 438). The questions may not follow exactly in the order at which the guide suggests, and the interviewee is encouraged to go ‘off topic’. In general, the questions asked of each respondent will be similar, because according to Fowler (2013), questions should be worded so that every respondent is answering the same question. The questions needed to be similar to make sure that consistency was maintained in each school, limiting bias and also keeping the study generalizable across different school settings. Semi – structured interviews in this research will ensure that questions to the head teacher and class teacher in each school will follow a certain theme, in order to gauge perceptions and attitudes about libraries and information literacy instruction. In addition, in multiple – case study research, it is likely to find that some structure is in order to ensure cross case comparability (Bryman 2008, p. 440).

In the interviews with head teachers and teachers, themes included

- Their perceptions of the school librarian's role;
- The vision for the library (if applicable); how does the library support the school's overall mission?
- The level of involvement with School Library Services;
- The extent to which information literacy instruction is given by teachers;
- Partnerships between the school and the public library.

Additionally, the researcher conducted unstructured interviews with some of the children in each of the observed classes during their work on the assignment, which gave some insights into the ways in which they were carrying out their research assignments. They were also asked about their library during that time, so that the researcher could gain some insight on how the students used their library.

Although formal, semi-structured interviews with members of staff were conducted during the observations of students in each of the schools chosen, unstructured interviews were conducted with staff from Schools Library Services in two local authorities during the first year for the purposes of recruiting schools and to gain a deeper understanding of the information literacy landscape in two counties in England. These interviews gave the researcher insight into how information literacy instruction is currently taught in some of the subscribing schools, but also provided extensive information about what Schools Library Services can offer to schools if they choose to subscribe. Schools Library Services are particularly valuable to schools that are not providing any kind of library service to their pupils because they can offer fiction books to encourage reading for pleasure, as well as non-fiction books to support learning within the curriculum.

Two expert interviews were also conducted prior to the student observation in schools, and the interview schedules can be found in Appendices 8 and 9. The first interview was conducted with Andrew Shenton, who is a former lecturer from Northumbria University's School of Computing, Engineering and Information Science. He gained a PhD in 2002 after an investigation of the information seeking behaviour of children and young people. He has now had over 100 papers published in Italy, Canada, the USA and Britain. He is currently an independent consultant, and continues to research the information behaviour of young people. Dr Shenton responded to an announcement in CILIP's School Library Group newsletter, which welcomed school librarians to discuss their experiences and knowledge with the researcher. Dr Shenton offered his expertise and granted the researcher an interview, which took place in December 2012.

Another valuable interview was conducted with Geoff Dubber, who is a former primary and secondary school teacher and head teacher. Although most of Mr Dubber's background is in teaching, he also created and managed several school libraries during his career. He now works as a consultant for librarians and teachers to assist them in using the library as an academic support, and has written several manuals for the School Library Association about how to set up and manage school libraries. He also encourages the teaching of information literacy. His information literacy checklist was the foundation for the school observations completed in this research study.

Both of these expert interviews were transcribed to be analysed along with the data collected from schools.

Informal interviews were also conducted with school librarians in order to gain a sense of the state of school libraries from the librarians' perspective. Annike Dase is the former library manager of the Nottingham Trent College and The Elms libraries. This is an independent school ages 3-18, and she was originally hired as a teacher of German, but upon arrival at the school, was asked to set up and manage a primary school library because of her library qualifications. She was responsible for the creation of a primary school library, and also wrote an information literacy curriculum, which the

school is still currently following. In addition, she was responsible for the refurbishment of the secondary school library. Although this interview was informal, and the school was not considered for the study because of its independent status, one of the comments made in this interview by Ms Dase was that there was a marked difference in the information literacy skills of the students who attended both the primary and secondary schools, compared with those students who did not enter until secondary school. Their confidence in research, and their ability to use a variety of sources at the secondary level was a result of primary library instruction from the time they began primary school.

An informal telephone interview was conducted with Anne Laws, who was a volunteer primary school librarian in North Yorkshire. She was responsible for setting up reading services for the parent community through the primary school library, which was thought to have an impact on the literacy scores on standardised testing. In addition, she also attempted to integrate information literacy instruction into the service, but she found this challenging since she was only in the school for a limited number of hours as a volunteer.

During the first year of research, contact was made with Sally Duncan, Assistant Director of the School Library Association. This initial contact was intended to provide some assistance in the recruitment of schools in the study. In addition, Ms Duncan was interested in the project and hoped that the results could be shared to further their school library advocacy work.

3.13.3 School Information

Other data collected was to do with each individual school. In the two schools which had libraries (Schools A and C), information about opening times for students, the presence of a professional librarian and the resources available to students was important to document because in studies from the United States, research illustrated that those elements of library provision had an impact on academic achievement, so looking into the same data was used to determine if the findings for this study were similar. The financial reports from each school were also important so that it could be determined that all schools were working with roughly around the same budget, and also to look at how much of that budget was allocated for educational resources.

Borrowing statistics were considered in the two schools that provided libraries (Schools A and C), however, these statistics were not included in depth in the Findings because student borrowing does not give an indication of how much students are actually reading. So, although it was important to look at the borrowing records for both schools, the data is not a reliable measure of how much students are actively reading.

Ofsted reports were considered in order to compare the three schools, and to assess whether or not the schools were performing in the same way. In addition, the ranking was analysed to find out if the schools with library provision performed better than the school without provision.

The opening hours of the library were important based on the other studies into school libraries in other countries which did confirm, as part of their findings that opening hours had a positive impact on student achievement, which was discussed in Section 2.7.1.

3.13.2 Field Notes

During the study, all the observations with students were recorded as handwritten field notes during the observation. “Field notes are the traditional means in ethnography for recording observational and interview data” (Hammersley and Atkinson 2007, p. 141). It is recognised that “field notes are selective” (Hammersley and Atkinson, 2007, p. 142), however, the researcher tried to capture as much in writing as possible during the observation session. The researcher made notes during the actual participant observation; this eliminated the possibility of forgetting crucial information from the time of the observation to the time of typing up the notes. Making notes during the observation was also assistive for the analysis of the data: field notes would be typed up immediately following each observation, so the coding of each observation was completed shortly after the observation was finished.

The field notes from School A were broader and more lengthy, as a result of trying to record every comment and every conversation that took place. The notes are more emotionally charged than in the second two school observations. O’Reilly (2012) states that this behaviour is expected at the start of a study, but as the study progresses, notes become “more precise, more reflexive and more active as time goes on” (p. 102).

It was also noted during the first classroom observation, that both the students and the classroom teacher were uncomfortable as notes were written while in conversation, or while observing the class. Sherper-Hughes (2000) did highlight this discomfort and said that participants “do not usually want to be constantly reminded that we are researching them, and may even be wary when they see us writing” (p. 119). The teacher in School A did in fact state that it made her “a bit nervous seeing you writing notes while I’m teaching”, and so the decision was made to leave the notebook in an accessible place, but not carry it during the observations. There were plenty of opportunities to jot notes down during the observation periods, and as a result, the students and the teacher were visibly more comfortable during conversations, and it allowed them to give responses more freely. This also meant that the field notes needed to be more selective, and allowed the analysis to begin before any notes were taken; to avoid writing while respondents were talking, the researcher needed to decide which talking points were worth remembering to note later.

Scheper-Hughes (2000) emphasised the importance of being selective so that dialogue could be more open and the observer could participate more fully with the respondents. Both the interview and the observation frameworks, discussed in sections 3.10.1 and 3.10.2, allowed the researcher to be selective and focused during the class periods, and therefore could maximise data collected, while minimising the time taking notes instead of engaging in dialogue.

Handwritten field notes were also a preferred data collection method because of the ethical concerns related to the audio recording and photographing of minor children. To use recording materials may have made access to some schools more difficult, and photographic evidence, in particular, was not needed in order to collect relevant data.

Another compelling argument for handwriting field notes was given by Madden (2010) who said that “handwritten notes convey the personhood, the embodiment of the ethnographer, and as such, they are magical and illuminating for what they can tell us about the ethnographer as much as what they say about the participants being observed” (p. 121).

3.13.3 Interview recording and transcription

All interviews with members of school staff were recorded to ensure that the researcher had accurate statements from each of the interviewees when transcribing. Recordings were listened to once through, and then transcribed. Interviews were not transcribed verbatim because there was discussion during these interviews that was not relevant to the research. The time to transcribe was approximately 30 minutes for five minutes of interview, which was another reason that the interviews were not transcribed word for word. Transcription took far longer than the researcher anticipated, particularly in the Andrew Shenton interview (Section 4.9), where transcription time was approximately 12 hours because the interview was over three hours long. As a result of that lengthy transcription process, it is beneficial to make certain that interviews are kept as close to the time scheduled, without sacrificing the data collection

3.14 Data Analysis

Each school case study was treated individually, which is recommended by Yin (2009) The case study reports involve comparative design, which is defined as “a research design that entails the comparison of two or more cases in order to illuminate existing theory or generate theoretical insights as a result of contrasting findings uncovered through the comparison” (Bryman 2008, p. 692). It embodies the logic of comparison in that it implies that we can understand social phenomena better when they are compared in relation to two or more meaningfully contrasting cases or situations (Bryman 2008, p. 58).

The transcripts of each school session were coded using open coding, which is essentially interpreting and teasing out the theoretical possibilities in the data. In addition, focused coding was used to link the categories developed through the process of open coding.

As Mertens (2005) explains: during this phase, “a model of the phenomena is built including the conditions under which it occurs (or does not occur), the context in which it occurs, the action and the interactional strategies that describe the phenomena, and the consequences of these actions. The data continues to be questioned, and the questions now focus on relationships between the categories” (p.424).

Data analysis began with the very first observation session in School A. It was upon review of the sessions’ transcript immediately after the observation that a pattern was established which led to the creation of an observation framework. The observation framework addressed the following:

- It helped to discover patterns for each of the elements listed in the framework;
- It created theoretical replication, which “produces contrary results, but for predictable reasons” (Yin 1989, p. 54);
- It ensured that the case study design could be replicated across multiple schools in the future;
- It helped to maintain researcher objectivity; focusing on the same factors for each school ensured that each school was analysed neutrally.

3.15 Coding

The essence of coding is the process of sorting through the data into various categories that organise it, and make it meaningful from the vantage point of one or more frameworks or sets of ideas (Lofland 2006, p.201).

The first step in coding the data for this research study was to use initial coding, which is also referred to as open coding. Initial coding is where the collected data is condensed and organised into categories that “make sense in terms of relevant interests, commitments, literatures, and or perspectives” (Strauss and Corbin 1990, p. 61-74). Initial coding begins by inspecting the interview transcriptions or field notes line by line and determining where each item fits in with the research.

Initial coding for this research began with a careful read of all transcribed field notes. Notes were written alongside items that seemed relevant, some of which would fit into the observation and interview frameworks, but other notes included marks for the tone in which things were stated. This was important, because a defensive tone from a teacher when asked about school libraries is relevant to the question about whether or not teachers perceive libraries as academic support services.

After the initial coding was complete, focused coding could take place. Focused coding is “less open-ended than line by line coding, and is considerably more selective and more conceptual” (Charmaz

2001, p. 344). It builds on the initial coding by beginning after the former is well underway and has accumulated, it uses a selected number of the expanding or more analytically interesting initial codes to knit together larger chunks of data, and it uses these expanding materials as the basis for asking more focused and analytic questions (Lofland 2006, p. 201).

Once the focused coding began, it was easier to recognise where the initially coded items fit appropriately into the framework. Additionally, while in the process of elaborating on the initial codes, the less descriptive or analytic data were easily omitted from the useful data.

The collected data was analysed using thematic analysis, which unlike critical discourse analysis and grounded theory, does not have an “identifiable heritage” (Bryman 2012 p. 578). Thematic analysis is a search for themes that emerge as being important to the description of the phenomenon (Daly, Kellehear & Gliksmann, 1997). The process involves the identification of themes through “careful reading and re-reading of the data” (Rice & Ezzy, 1999 p. 258). The coding process involved recognising an ‘important’ moment and ‘seeing it as something’. While computerised analysis software was available, the researcher chose to manually code the transcriptions with highlighters using the observation framework, as illustrated in Section 3.10.1, because it was preferable to the researcher to read and code the transcription manually; being able to think about how something was said in an interview, for example, was as important to the researcher as what was said.

The interview framework in Section 3.10.2 was also a tool that assisted coding the head teacher and teacher interviews. Although the interviews were semi-structured so that a natural flow of discussion was possible, care was taken to ensure that the questions to all staff members in each school were similar to maintain consistency across the three schools in the study.

The coding process began when all of the observations and interviews had been transcribed. Using the frameworks described in sections 3.10.1 and 3.10.2, the relevant elements were colour coded with highlighters on the transcript, and those quotes or events were described in further detail in the Findings Chapter. A sample of a colour coded transcript is included in Appendix 10.

3.16 Trustworthiness

Qualitative researchers must incorporate measures to deal with trustworthiness in naturalistic research (Shenton 2004). Guba (1984) suggests four criteria that should be considered during a qualitative study to ensure trustworthiness:

- Credibility;
- Transferability;
- Dependability;

- Confirmability.

3.16.1 Credibility

According to Shenton (1984), one of the key criteria for researchers is internal validity; “in which they seek to ensure that their study measures or tests what is actually intended” (p. 64). The following ideas may promote confidence in the researcher that the phenomena are being accurately recorded:

3.16.1.1 The adoption of well-established research methods

Shenton (1984), discusses the importance of deriving the methods for collecting the data from those methods that have been successfully employed in other studies. In this study, observations and interviews were chosen to be the main methods to collect data, both of which are recognised methods in ethnographic research. In addition, the creation of frameworks for both the observation sessions and the interviews ensured that data was collected in the same manner across the three schools selected for the study.

3.16.1.2 Early familiarity with the culture being studied before data collection begins

The researcher was familiar with the organisational culture of schools prior to the observations and interviews. This familiarity made it possible to build a rapport with both the teachers and the students. Furthermore, the researcher was able to spend entire class sessions with students and teachers over a period of time. According to Lincoln and Guba (1986), one of the ways in which a naturalistic researcher can meet the criteria of trustworthiness, is through prolonged engagement in an environment. Prolonged engagement is defined by Lincoln and Guba as spending enough time in the environment to learn the ‘culture’ of the organisation, as well as to build rapport with the respondents (Lincoln and Guba). It also requires enough time to take into account any distortions that might occur during the data collection.

3.16.1.3 Random sampling

Although this study used criterion sampling to choose the schools for the study, the observation sessions operated under random sampling when it came to talking with students about their work. There are multiple voices of different students present within each of the case studies, because the researcher did not give favour to speaking to certain students, but not others. The fact that students and their parents had the right to refuse to participate in the study was another tactic to ensure reliability; allowing them to refuse ensured that everyone included in the study was a willing participant, and offered responses freely. The students were encouraged to answer questions honestly, and assured that there were no ‘right’ or ‘wrong’ answers.

3.16.1.4 Thick descriptions of the phenomena under scrutiny

Care was taken to ensure that each school was approached in a similar manner, and also that the data collected from each was consistent. The case studies of each school illustrates a rich picture, not only of the observation sessions with students and interviews with staff members, but there was also information given about demographics, socio-economics, location, size and library provision, so that the reader was able to 'see' the school in more holistic way, and to provide a deep description of the operations taking place in the school.

3.16.2 Transferability

Transferability is a challenge to qualitative researchers because "the findings of a qualitative project are specific to small number of particular environments and individuals, it is impossible to demonstrate that the findings and conclusions are applicable to other situations and populations" (Shenton 1984). Gross (1999), contrasts this by suggesting that the findings can provide a baseline understanding that can be carried across to other environments. Gross's stance fits within this research study, because a positive finding on the impact of library provision may be applied to other schools who have similar library provision in place.

Since the results of the study were not able to be generalizable across every school in England, it was important that the research design be transferable to any school. The research design was created so that it could be applied to other schools in England in the following ways:

- Observation framework: The framework targets specific areas of investigation, and could be modified dependent on what the observer was aiming to study. An observation framework also assists a researcher who may have time limits in their observation sessions;
- Interview framework: the structure of the interviews was kept generic, so that another researcher would be able to adapt the questions to suit their study;
- School data information: collecting data about each school is important to understand the culture under study. This study chose schools that were fairly similar in terms of reading scores, demographics and socio-economics, but another researcher could choose to study a different demographic, for example, by looking at league tables to determine suitable subjects;
- Case study reporting: case study reporting assists a researcher who may not be allowed extended time in any school. It allows the data collection to be concise and also gives the researcher the ability to focus on each school individually. Case studies maintains consistency across all the schools studied, so that they are treated the same.

3.16.3 Dependability

While transferability may be a challenge for this research, the dependability of the design is strong. Dependability is the idea that if the work of the study was repeated, similar results would be obtained. The research design is able to be used to study other schools, the observation and interview frameworks, as described in the previous section, can both be carried across to other school environments to investigate how the school library contributes to an academic situation or environment. It is a flexible enough design, so another researcher could employ the same techniques to achieve similar outcomes.

3.16.4 Confirmability

Steps must be taken to ensure that the work's findings are "a result of the experiences and ideas of the informants, rather than the characteristics and preferences of the researcher" (Shenton, 1984 p. 72). This was a motivation for the creation of the observation and interview frameworks; frameworks made certain that the researcher was treating each school the same, and the data collected was consistent. Any bias that could have been present was made transparent by the researcher in Section 3.11 when the sampling was presented.

In addition, the decision to use case study reporting made it essential that same data was collected from each school. Case studies allowed the researcher to suspend any bias that may have existed, because they were each reports of exactly what was directly observed, and the school information collected was the same in each school. Frameworks allowed the researcher to target the best data to be collected, because ethnographic studies often provide a deluge of data that can be difficult to manage in a short time.

3.17 Summary

This chapter detailed the methodology chosen for the thesis, as well as the research methods that were used to collect data. The data analysis was discussed, as well as the trustworthiness of the research. The next chapter contains the application of the chosen methodology in each of the schools, and the full case studies from each school. The significant themes found in all three schools are included, as well as the documents analysed in this study.

Chapter 4 Findings

4.1 Introduction

This chapter will provide detailed descriptions for each of the three schools in the study, including information about each school, and the interviews and observations that were conducted over the time allotted for the study. The year six students in each of the three schools were observed during a research task provided by the class teacher. Included in the following sections will be the reports of those observations and the schools where they were conducted.

Definitions of information literacy (see Chapter 2, Section 2.12) emphasise the ability to identify what information is needed, locate the information, evaluate the information for purpose, apply it to the situation and acknowledge the sources of information. A framework for the observations was created (see Chapter 3, Section 3.101) and analysis of the data collected revealed that patterns of those information literacy attributes occurred naturally in the observed sessions. The definitions of information literacy have been adapted slightly in the data analysis to suit the age of the participants, so the observations sections will address Task Definition, Finding and Evaluating, Application and Acknowledgment. The choice to combine the facets was because of their relationship to each other; students often evaluated the information for purpose as they found it, so it was logical to keep those together. How they applied and acknowledged the information they found was also a logical link, and those sections are not as detailed particularly because none of the observed schools required their students to provide citations or references for any of the information that they found.

4.2 Schools selected for the study

A great deal of time was spent from December 2012 recruiting primary schools for the main part of the study, which was initially scheduled to begin in April 2013. School library services in two counties were initially the key contacts to obtain information about suitable schools for the research.

The first primary school which agreed to allow the observations was originally going to serve as the pilot study school, because it was the school where the researcher was employed for five hours per week, and also the school that the researcher's children were in attendance. When the researcher was challenged with finding schools which would allow the observations to take place, it was decided that the pilot school was a match with the participation criteria that was established prior to the school search. In addition, it was an ideal school for the study because the researcher had already established a rapport with the students in the Year 6 class, and those students were able to talk freely to the researcher when they were asked questions during the observations. Five observations in this school were completed from January until February 2013.

School Library Services also provided the names of six schools that they recommended to contact. Of those six schools, two confirmed that they would be happy to take part in the study. Of those two,

only one committed to the observations, and allowed the researcher access, but the head teacher did not want to participate until after the year 6 SATs exam, which was scheduled for May 2013. The success of the first school observations in only five, hour long sessions once per week, assured that the months of June and July would be sufficient time to collect data. The head teacher and the year 6 teacher did express his interest in the project immediately, and they were both interested in the project, and they agreed to allow the researcher to observe 4 class sessions that would be relevant to the study.

Two more primary schools were recruited in the spring 2013 to begin in September 2013.

The first was recommended by a contact who is employed as a teaching assistant in the school. The researcher met with the deputy head teacher, who was interested in the project and was willing to host the researcher for as long as necessary as long as the head teacher approved. However, at the beginning of the school term in September, 2013, the deputy head teacher sent an email informing the researcher that they were unwilling to participate in the research, due to long term illness of a year 6 teacher, the addition of a new year 6 teacher and a lower than expected SATs result. The third primary school scheduled to participate starting in September was recommended by the Director of the Schools Library Association, because the school library employs a qualified librarian for 30 hours per week. The head teacher confirmed that they would willingly participate in the research, the librarian was interested in the project, and the study was conducted there in November 2013.

Table 5 below illustrates a brief description of the schools that participated in the study:

	Number of Students on Roll	Library Provision	Schools Library Service Subscription	Location
School A	205	Designated library area in the school, small library budget. No dedicated librarian, library is managed by a teacher who also has a role as the literacy coordinator.	yes	suburban
School B	76	Bookshelves in corridor, classroom libraries, Head teacher is Education library services liaison.	yes	rural
School C	501	Designated library space, qualified librarian employed 30 hours per week	no	suburban

Table 5 Descriptions of selected schools

It was important that each school in the study was similar in terms of demographic and socio-economic situation of the students, because if inner city or schools that needed improvement were included, there were too many factors that could influence the students' abilities to find and use information that were not academic related. In areas with high levels of poverty, for example, it could be plausible that students lacked information literacy skills because of their home situation, rather than because they had not been taught the skills. In addition, students in schools with an Ofsted rating below 2 (Good), could be lacking in information literacy skills due to inadequate teaching practices, rather than because they lack school library services.

Each school had a population that was similar in demographics, in that they were largely populated with Caucasian British children, with very few English as a second language (ESL) students, and the number of special needs students was also similar. These attributes were considered, again, because the outcomes of the study may not have been comparable if there were a higher proportions of these students in one school and not the others. A large proportion of ESL students, for example might have resulted in a lower than National test score on the Reading section of the league tables.. School test data was taken into account, and all three schools were slightly above the National Average for reading according to the test data. Ofsted ratings in all three schools were 2 (Good) or higher during the time of the study (in 2015, all three schools were at Outstanding level), Some school spending

data were considered, for example, the total incomes and per pupil spending, and how much each school spent on non-IT learning resources, which is where the library spending is found. Investigating school spending ensured that higher levels of information literacy skills were not achieved because one of the schools had a higher income to spend on resource materials, or extra, high- cost databases for research purposes.

Gender was not a consideration for this study, because there was no requirement to measure whether a particular gender was more information literate than another for the purposes of this particular study. According to the school league tables on GOV.uk, each of the schools had a reasonably equal population of girls and boys.

Publishing specific data for each school compromises the anonymity of the schools, and providing citations for statistics would reveal the schools' identities, so there is brief mention in each of the school profiles in Sections 4.4, 4.5 and 4.6, but every effort was made to keep the school identities anonymous, as was guaranteed at the start of each observation and interview. Information on school incomes, expenditures and demographics were found in primary school league tables on the GOV.uk website.

4.3 Procedures for data collection

The procedure for observation was dependent on the class session, which was set by the class teacher. In each school, the researcher attended the beginning of the lesson to find out what the topic for the day was, and recorded in writing any introductory materials, questions or directions for that session. The researcher then accompanied the students and the teacher to the place where they were working on their assignment, and walked to each student group as they worked, recording in writing any questions, responses to questions or general observations about what the students were doing during the research period.

Time in each of the class sessions was limited, which made the observation framework useful, it assisted in keeping the observations focused more concisely during the sessions. This did not mean that any relevant findings that may have emerged outside of the framework were not considered, it was only a tool to assist the researcher's efficiency, and to ensure that the same elements were examined across the three schools in the study.

Interview guides were prepared in advance, and distributed to the interviewees allowing time for them to review the questions. An interview framework was illustrated in Chapter 3, Section 3.10.2. Using an interview guide ensured that similar questions are asked in each of the schools. Guides also provided teachers and staff members a bit more time to respond carefully and not feel 'on the spot' during the interview. Interviews were recorded so that the interviewer could focus the attention on the respondents and ask questions in response to their answers. The setting for interviews was dependent

on available space in the school; school interviews took place in school offices or in vacant classrooms. In the case of School A, the teacher was not able to set aside any time for an interview, so the interview questions were asked in the classroom over a few class sessions during breaks in the observations. The expert interviews conducted during the second year, took place in public venues to accommodate the researcher, who travelled to meet with respondents.

The researcher also examined the league tables for each school to obtain information about population, demographic, test scores, financial records and OFSTED inspections. This was to determine the similarities of each school, and to record any differences that may impact the findings. For example, a school in a low income area, where the students were at a socio economic disadvantage, may have had different outcomes on their information searching as a result of poverty, rather than the lack of a library.

In School C, where the findings indicated that the students were more information literate than in the other two schools in the study, the sample size was three classes of around 30 each. The researcher had the opportunity to observe all three classes, and was able to determine that their successful process for research was because of the instruction they had been given from the librarian, and not due to outside influences, such as parents, or computer use at home. The confidence and ability of students demonstrated in their research tasks in all three classes was consistent enough to correlate with the lessons they had been given from the librarian from their entrance into school at age 4.

Field notes were handwritten during each of the class sessions. Following each observation, the written field notes were organised by word processing. As the notes were transferred from handwritten form, responses from students, directions from the class teacher, and questions from students during the observation were coded and placed into the categories identified for the case study framework. It was noted in the first observation session in School A that students were shy about answering questions if the researcher was carrying a notebook, so the notebook was kept close by so that responses could be written in between talking with students. Interviews were recorded where possible so that the researcher could focus attention on the respondent without taking notes as the interview was happening. Following the interviews, the recordings were transcribed using transcription software. To make the analysis of interview data more efficient, relevant responses were highlighted as the transcription is carried out, and were reviewed after the completed transcription so that those responses could be transferred to the case study report.

It was not important to create identifiers in the transcription of each schools' observations. The study was not focused on the impact of gender, and all of the students were part of a year 6 class, so the students are simply identified as 'student' when quoted, and teachers as 'class teacher' or 'head teacher'. Other quoted interviewees who wished to remain anonymous are referred to by their specific job title.

4.4 School A

4.4.1 Introduction

School A was originally going to be used as a pilot for the research design. Difficulty in gaining access to a third school, however, resulted in the decision to use the pilot school study as a school in the main study. It is acknowledged that the researcher is known in the school as both a former part time employee (five hours per week in the library) and as a parent of children in lower year groups in the school, but observations of students and interviews with staff in School A were consistent across all three schools in the study. Additionally, students' responses in this school were more detailed than in the other schools as a result of an established rapport, and therefore, the data collected was relevant and useful to this study.

Students were observed searching the internet for information on topics identified by the teacher, and the researcher observed skills such as key wording to locate the information, evaluation of the websites they chose, what they did with the information once they found it and how they used the information in a final product. The researcher recorded these observations in written field notes, which were taken throughout the observation session.

4.4.2 School Profile

The school was chosen for the pilot study because the researcher was employed for five hours per week as the part time librarian, and also has children who attend the school. Bias is an obvious limitation for using this school in the main study, but the ease of entry into the school, and the researcher's acceptance into the year 6 class were positive considerations for using this school.

At the time of the observations, the school had a total enrolment of 205 students. It was an oversubscribed school, so the average class size was around 30 students and there is one class per year group. Most pupils are White British and very few speak English as an additional language. A below average proportion has special educational needs and/or disabilities. The head teacher took up her post in 2010, and there are 10 members of teaching staff and 11 teaching assistants. The school opted for the Creative Curriculum in 2010, which follows the Primary National Curriculum in terms of the skills and subject taught, however, the creative curriculum uses thematic units to combine subjects to make topics more meaningful for students, so subjects are taught together under one theme, rather than as separate entities. An Ofsted inspection in June 2011 resulted in a 'good' rating (2) on the inspection scale.

4.4.3 School Library Provision

The library is centrally located in the school; it is actually a main thoroughfare, so students pass through at some point every day. At the time of the observations, the library was open early in the

morning on Tuesdays-Fridays from 8:30-8:45 and on those same days at lunchtimes from 12:30-1:00. Prior to the employment of the researcher, the library was managed by a classroom teacher and teaching assistant and open for 20 minutes at the beginning of each school day. The researcher worked as a parent volunteer from October 2011, and the head teacher decided to offer a 5 hour a week employment contract in April 2012, with the researcher working with the literacy co-ordinator to assist with stock management and creating more opening hours for the students. There is a library management system in place, but only the teacher who was managing the library was trained to use it, and it is not networked, so students do not have access to it outside of the library. Computers are located in a separate ICT suite on the opposite side of the building to the library, so there is a physical separation between online resources and books. Year 6 student library assistants have always been involved in the general management of the library, but they were not provided with any pupil librarian training, so their knowledge of the library was limited, particularly their knowledge of the order of the sections of the books, which left the library disorganised. Additionally, there had previously been no budget for the library, so the stock was out-dated and much of it was in poor condition.

In 2012, a library refurbishment was completed: the old stock was weeded and discarded, attractive, purpose built, library furniture was fitted, and a £1200 budget was provided to select and acquire some new stock. When asked why she made the decision to change the library, the head teacher responded that she wanted the space to promote reading for pleasure, because “I think it’s my job to make it easier for the staff and the school to try and hook them into reading. If students can read they can learn, and if they can learn and gain knowledge they can become anything.” She indicated that the library was not ‘finished’ yet; her vision was that she wanted it “full of more books, with kids in there, reading every day, every break time, lunch time before and after school. I want it used.” The head teacher has a positive view of reading for pleasure, and wants to encourage a reading culture in the school, however, she does not consider the academic impact that the library could potentially have if it were used to support the curriculum “I was not thinking of standards or SATs when I was thinking of the library, I was thinking enjoyment and experience, but then I do believe that enjoyment and experience leads to better standards.”

In March 2013, the head teacher met with the governing body for an annual review of the school budget, and it was decided that the money spent employing the researcher as the librarian would be better spent elsewhere, and the post was terminated. From then, a parent volunteer ran the administrative tasks, while the Literacy Co-ordinator took over the management of the resources.

4.4.4 Use of School Library Service

The school does pay a membership subscription to School Library Service; however, there is resistance to borrow books from the service because so much stock has been lost in the years without any full time management, so the subscription provides a way for the school to purchase books at a discount from the School Library Services bookshop. The librarian explained to the head teacher that borrowing from SLS was a good way to start when building a new collection, because books can be borrowed long term, topic boxes can be used for subject area teaching, and fiction loans can also move termly to keep the collection refreshed. Despite this, ownership of the books was important to the head teacher, she stated that “SLS would charge us the £1200 budget to loan us books, when we could spend that money on books that we own.” Additionally, the branch public library allowed teachers to take as many books as they wanted on their own personal tickets for free, which the head teacher also stated to maintain her point about not using the lending service by the SLS: “we don’t need to pay our money to them when we can go down to that library on a teacher’s personal library card and get as many books as we want.”

4.4.5 Use of ICT

The ease of using the ICT suite also has been seen as a better alternative to updating the non-fiction collection. During an interview with the class teacher, she stated that “I would much rather have money be spent in updating the computer labs or getting a bank of iPads rather than updating the non-fiction books.”

The school library’s non-fiction collection is the biggest gap in the library service, the recent change in the curriculum and lack of funding to update all library stock has meant that the non-fiction books do not support all of the themes that are taught in each year group. This has led to a lack of use by teaching staff, and means that students may not be able to extend their studies in the library beyond the classroom. However, the class teacher also said that “it’s time, isn’t it? There’s always something to do at primary school, so I don’t always have an hour a week to set aside to come to the library”. Also, the fact that the school library’s non-fiction resources are limited and not current with the curriculum presents another justification for staff not using the library: “it’s easier to get in the computer and know we are going to find the information we’re looking for in a short space of time. There is a wide range of information available via the internet, but if we go to the school library to find information about tomorrow’s topic, for example, there may only be a few books with a few bits of information.”

4.4.6 Use of the Public Library

The branch public library is in close proximity to the school and serves the local high school, which is situated on the same site as the primary school. The Library Development Officer (LDO) does offer services to the primary school, and teachers from each year group book in for a session with the Library Development Officer at least once during the school year. The service is free and can be tailored to meet the needs of the class. The year 6 class took advantage of the public library service during one of the observations, however, the public library visit was not used to enhance the research the students were doing in class. The planned activity was a library skills induction, in which the students learned about where to find the books using the Dewey Decimal system. While the library visit was kept fun and informative for the students, there was a missed opportunity for the students to be able to complete some of the research from class by using the resources in the library. This is a typical challenge for the Library Development Officer who oversaw the session and stated that “you need something from the teacher so that the children don’t see the library as something completely separate from their learning, because while it’s fun and a nice thing to do, they need to see it as part of their learning and only part of that is reading for pleasure.” The class teacher did suggest at one point during the session that students look for some books that might have information for their topics, however, at that time in the session, some students were browsing recreational books while others were completing a craft activity, so did not engage with the teacher’s suggestion.

4.4.7 Perceptions of School Libraries/Librarians

It is the view of the researcher that information literacy skills should be taught incrementally over time, these skills should be embedded into the curriculum. If a school employs a school librarian, then it is reasonable to expect that the librarian would collaborate with teachers to develop an information literacy curriculum for the library that can also be adapted across every subject in the curriculum. This is dependent on the head teacher’s vision for the library, and the class teacher’s support of the librarian. In this school, the library was seen only as a resource for enjoyment and pleasure, not as a support for academics. The class teacher was asked during a class session if she thought that a librarian who was specialised in information literacy would be a good support for the research lessons she was giving. Her response, “don’t you think I’m doing it right?” and “there’s nothing they do at primary level that I cannot show them how to do, they aren’t doing research at a high enough level for it to be a problem.” In the published literature (see Hartzell, 2002), one of the barriers for school librarians is that teachers may feel less inclined to collaborate with a librarian, perhaps because a librarian’s status is perceived as lower than a teacher. The teacher’s comments may reflect this. Additionally, other reports have discussed that teachers are not sure themselves what is involved with the teaching of information literacy, so the comments by both the teacher and the head teacher show

that information literacy may be perceived as library based skills; those skills are viewed as separate to the rest of the curriculum.

As stated in the literature review, research from the USA indicates that it is the librarian, not necessarily the library space itself that impacts students' academic achievement. When the head teacher was asked what kind of impact she expected the refurbished library to have, she wondered "if that (the space) has more impact than a person. You know the money that you'd spend on a person, is that money that should be spent on resources?" The head teacher was clear that having the library space by itself would encourage students to read for pleasure more often, but viewed the library as not necessary to support the curriculum. Geoff Dubber, a school library consultant, discussed this pattern in an interview, "there are three 'P's' in primary school libraries: Provision, Practice and Promotion. What you find is that most schools go for provision." This seems illustrated by the vision of the head teacher in this school, the provision is there, but the actual practice of the library is not present, which maintains it as an underused academic resource.

4.4.8 Information Literacy Skills Instruction

The researcher's employment at this school has provided opportunities to witness the ways in which students are being taught information literacy in year groups other than year 6. For example, in Year 2, the students (aged 6-7), have lessons teaching them the difference between fiction and non-fiction books, as well as the parts of a non-fiction book. As a culminating activity, the students produced a non-fiction book on The Great Fire of London, for which they also did some research to find facts. This basic information literacy instruction was done as part of the whole topic on the Great Fire of London, so was a good example of embedding information literacy into the curriculum. Other year groups did similar activities, and they all had sessions in the public library at least once a school year which gave them the opportunity to use the class mark (Dewey Decimal) system and subject index to access non-fiction books. Again, the school library was not mentioned as a resource for this kind of instruction. The researcher, while employed as a librarian in the school, made an effort to schedule each year group to have a fortnightly lesson in the library to make use of the books and to have some information literacy instruction, however, with the small amount of time provided for each class, the students only had enough time to change their reading books.

The observations in the year 6 class did not reveal any specialised instruction on information literacy or research skills; students were left to use Google on their own, with only some discussions about possible keywords prior to their internet search. The limited time spent with the class meant that there may have been other lessons where these kinds of skills may have been taught, but the researcher was not present during these times. At the beginning of the first observed lesson, students were given a briefing on how to search for information on the internet. The class teacher asked how they should go about finding information from the computer, and the students responded that they should "look on

different sites to compare, to see if the information is true” and “search with Google”. The class teacher then asked what sites they could use besides Google, and “Bing and Wikipedia” were given as the alternatives. The class teacher discussed effective key words, and how to find the most useful information: “If you were only to type in Antarctica, do you think it will be easy or hard to find information?” One student responded that it “would be hard because it will give too much information, so it needs to be narrowed down”

In a discussion about beginning information literacy skills instruction from the start of primary school, the head teacher was asked her view on whether or not information literacy instruction should begin at primary level. Her response was that it was not necessary: “My natural response is to say I’m not sure they should, when I was a student myself, I did not have any idea what the Dewey Decimal System was until I was in early high school. Even then, I did not use those skills at Secondary level until I was in Sixth form college, then I properly used the library.” Additionally, the head teacher did not think that independent learning was useful at primary school age “because how much independent research will they be required to do? And if it is independent research, it’s based on a topic, so they’ll go and put into Google, which is what kids do at Key Stage 2. They might go to the library and look through a few books, but the majority of them will use the internet.”

The problem associated with the belief that students do not need to be instructed on how to do research at an early age was discussed by the Library Development Officer, who was interviewed because she was employed by the public library near the school, and worked with many of the classes when they came in during lesson times. She stated that she understood that students “have to be internet savvy these days”, but that when she works with the year 7 classes, and asks them which site they are most likely to use first when they are looking for information for a homework assignment, “they always answer Wikipedia, always. Even though we subscribe to online information websites, they use Wikipedia without fail.” She goes on to say that one of the problems with the reliance on Wikipedia is that students cannot differentiate what information is true, and which is not; they lack the skill to be able to tell the difference.

The other issue with the head teacher’s view that students do not need to be information literate at primary level is considered in the Pennsylvania study referred to in Chapter 2, Section 2.1.2, which mentions the potential discomfort of letting children have complete access to the open web (Lance, Rodney and Hamilton-Pennell 2000). Despite being supervised by the teacher in the ICT suite, the children are engaged in independent research; they have not been provided with any website or database guidance other than a brief overview at the beginning of the first session, which only provided them with popular search engines. Although filtering software was implemented in School A, there was still the possibility for students to accidentally open an inappropriate webpage. This is always going to be a possibility, however, if the students are directed toward websites that are

appropriate for the topic, or databases that are subscribed to and evaluated by staff for relevance, and the students are taught to use these, they are then engaged in guided research. Guided research will provide students with the tools to do their research more efficiently, instead of wasting time bouncing from site to site, but it also provides an element of safety to their searching: if they know exactly where to go to find the information on the web, it is the researcher's view that they would be less likely to stumble upon inappropriate content.

4.4.9 Entering the Field

The researcher was known to the students because of the role of librarian held at the school, and the consent forms were distributed and an explanation of the research was given to the whole class a few weeks prior to the start of the data collection. In the first session, the students were willing to answer questions when asked, but few students initiated contact. At the start of the second session, however, the researcher arrived in the class early and the students gathered around to ask questions about the research, and about the different places the researcher had lived prior to living in the UK. It was informal discussion, but from that session on, students actively approached the researcher to show findings or ask questions about the task. They seemed less aware of the presence of someone else, and less interested in the observation; they accepted the researcher as an insider.

4.4.10 Observations

The researcher was present for five lessons over a period from 10th January until 7th February, in which the students were completing small scale research projects to find information about different aspects of the Polar Region, including: general facts about each region (week one); animals specific to each region (week two); facts about snow and ice (week four) and explorers (week five). Students had a weekly slot booked in the ICT suite, so they spent one hour per week engaged in some task that requires them to look up information. Students only used the ICT suite to complete this research; there was no time planned for the class to visit the school library, however, the class did make one visit to the public library (week three), which will be discussed further in this section. In every observed lesson, the internet was the only source available for the students' research.

4.4.11 Task Definition

Information problem solving begins with an understanding of the problem at hand from an information point of view. In order to solve an information problem, students need to determine the range and nature of tasks to be accomplished (Eisenberg & Berkowitz 1990, p. 5). In each of the observed lessons, the class teacher gave a short presentation on the topic that was to be researched, and how that was to be presented at the end of the lesson. Additionally, the class teacher put the lesson's topic on the whiteboard, with some notes for the students to write down. These notes

included keywords to help them narrow down their topics so they could search the internet more effectively. The teacher also encouraged the students to supply keywords that they thought would be important. Only in the first observed lesson did the class teacher discuss searching on the internet. Another point she addressed in the first lesson was on safety, for example, what to do if they should find themselves on an inappropriate website that was opened by accident. “We have to turn off the monitor and come tell you” responded one student. The computers are equipped with filtering software, and are also closely monitored by the teacher in charge of IT in the building, of which the teacher reminded the students before they went to the computer suite.

4.4.12 Finding and Evaluating Information

In each of the observed lessons, students worked in pairs to find the required information for their topic. In every lesson, Google was the search engine they began their searches with. Although the students were limited in their choice of search engines, they did not always choose the first ‘hit’ that Google supplied, they scrolled through the list to assess which website would best suit their purpose. There were not many students who actively used sites like Wikipedia; in the first observed lesson, one pair of students was observed using Wikipedia, but quickly moved on to a different website. When asked why they decided to find a different site, they responded “Wikipedia had good information, but it was written in long paragraphs, and we only need small bits of information. The website we chose gives facts in short sentences.” In the first lesson, it was noted that students used websites that contained specific information for their topics. The most used websites were BBC Nature, Espresso for Primary, and Antarctica fact file. The researcher went to each group and asked how many websites they used to find their information; each group used at least three websites, with a majority using four. The first lesson topic was very general, so the students had freedom to search for information about the Polar Regions that interested them. It appeared, based on the first observation, that they were skilled at finding what they were looking for, and they used the internet effectively.

Students in the next observed lessons appeared to have more difficulty in finding information. The topics became more specific, for example, in the second lesson, pairs of students were given an animal from each Pole, and they needed to find facts about each animal. They had fifteen minutes per animal, and they could search for any aspect of their animal that they were interested in. Student keywords tended to be a whole phrase, for example, “what does a Leopard Seal eat?” rather than single keywords. When a pair of students was asked how they found this project compared to the first one, they stated that “this week was harder, because we had less time, and could not find the information we wanted very quickly.”

The class teacher was asked why books in the school library were not used to find information. Her two responses were: “There’s always something to do in primary school, so I don’t have an hour a week to set aside to come to the library. If it is not part of the lesson, I don’t have the time.”

In the third observed lesson, students were given a broad topic: find facts on ice and snow. The class teacher provided some questions for the students to guide them which included:

- Why does it snow?
- Why does water turn to ice?
- How are icicles formed?
- Weather facts
 - Deepest snow records
 - Biggest iceberg
 - Biggest snowflake.

Although the teacher also gave the students a few ideas for types of websites (“Guinness book of world records website, websites that might have funny or unusual facts”), she did not give specific websites for them to look at.

When the students arrived in the lab, the teacher gave the students an additional warning:

“When I typed ‘facts about ice’ into a search engine, some inappropriate sites came up; ice is a nickname for an illegal drug, so be sensible. It will be obvious which sites are not appropriate, so if those sites come up, either switch off your monitor and come tell me, or leave the site yourselves.”

If there was a possibility of students going into an inappropriate site, it may have been beneficial for the class teacher to provide the students with some reliable sources to get them started. This will be discussed further in Chapter 6.

In the last observed lesson, students were once again given a general topic. This time, they were researching explorers, and they were given an opportunity in class to name all the explorers they could think of. Additionally, they watched a short clip on Espresso Primary about explorers to give them some background information. This was the only session in which a book resource was actually used, initiated by a student. The researcher was aware that a student was using the Guinness Book of World Records prior to using the internet to look at information. When asked for the reason, she stated that she was “using the book to find some information about people who had set records for getting in and around the Poles, and then I can put those names into Google to find out more information about them.” Another student achieved results in a similar way; he searched Wikipedia for a list of explorer names, chose the ones he wanted more information about and plugged the names into Google. A third student also used the Guinness Book to find information about Felicity Aston (the first female to ski across the Antarctic). The information from the book was used to do a Google search. The student did her research this way because “I wanted to find a recent explorer who did something no one else did”

Although the students used Google as their starting point for research, they did not always choose the first website on the results list. They scrolled down the list to find websites that they determined would be the most useful. They did not have criteria for the websites they chose, however, they chose based solely on the title of the result.

Another strategy that students employed with guidance was checking the validity of information found on one website with another website. During the first session, a student remarked that “it says here that there are 1.5 million people in the Arctic, but how can that be right? It’s mostly animals, isn’t it?” The researcher asked how the student could find out if that was correct. The student said “I could look again at Google, or choose a different website to check that fact.”

4.4.13 Application and Acknowledgement

Students were expected to take notes on the information they found during each of the sessions observed. It was noted that the students were particularly challenged by making notes that were brief and concise. During the first observed lesson, one student did comment that “I’m not very good at taking notes, so I’m not sure how much information I should include about these animals.”

Additionally, the teacher reminded the students several times during the first session not to copy long passages from the sites they were using.

Observing students during the subsequent lessons did confirm that note taking was a particular challenge. Students either copied longer passages of texts directly from the website they used, or they wrote one word bullet points that lost meaning once they got back to the classroom for the next part of the lesson.

After the research portion of each of the lessons, each pair of students was expected to create a piece of work to show the research they had completed. In the first session, students created fact files of the information they had gathered. Before they began their final projects, each pair shared with the class two facts that they had found during their research. All of the facts they had collected were then transferred onto poster paper decorated and coloured, and were displayed in the library.

There was no explanation or expectation for the students to provide citations for where they found their information. None of the end products required a report of any kind, but they were not required to discuss or keep record of where they found their information. The class teacher mentioned, during one of the sessions, that it “was not necessary for students at this level to acknowledge sources, they would have opportunities to do that once they go to high school.” None of the students questioned had ever had to cite the sources that they used for any of the projects they had completed in primary school, although one student did confirm that “we have been told about plagiarism”, but she could not remember in which year it was discussed.

4.4.14 Summary of School A

There is a clear desire by the head teacher of this school to create an environment for pleasure reading in School A. This is evident by her refurbishment of the library space and the investment in age appropriate stock. There is, however, a disconnect between the library as a place for leisure and the library as a place to support the curriculum, which limits the impact the school library can have on attainment. Student attitude toward the library was favourable from comments provided by students, but the students' comments reflect only the pleasure reading aspect of the library. At the end of the first lesson observation, the researcher spoke to three of the year 6 students about their use of the library. They were asked if they used the library much before the refurbishment and employment of a librarian: One student responded "No – the library was only open for a few minutes in the morning, so we had maybe 5 minutes a day. And the books weren't very good; there was nothing I wanted to read." Another student said "We only went to the library if we went with a class to read or something, but not to borrow books." A third student stated that "before, I only used to go once a month, but now I go in once a week at least because the books are better now and it's open more."

The termination of the librarian post after one year indicates that the position was not valued, because what was desired was for someone to keep the library tidy, not manage it as an academic resource. Observations with students gave the impression that the students were able to determine what information they needed to find, and they were confident in their abilities to find and evaluate the information that suit the purpose of the task. The students were challenged by taking appropriate notes on their information, and at no point was it discussed that they should acknowledge where their information came from. This will be discussed further in Chapter 6.

4.5 School B

4.5.1 Introduction

The school was chosen based on the advice of SLS in the county where the school is located. Initially, the school was willing to participate, they did not invite the researcher to begin research until their SATs period was over, and so only five lessons over the course of four weeks were observed. In addition, the school introduced the study and distributed all the consent forms prior to the researcher's arrival, which meant that the researcher did not have a chance to talk with the students until the very first observation. This required more effort from the researcher in the first session to make the students feel comfortable. A short presentation and a chance for the students to ask questions was permitted by the teacher at the beginning of the first observation, and while it did not immediately result in a comfortable rapport, it did make the atmosphere more welcoming.

The researcher was in attendance for five, one hour lessons over the course of four weeks, in which the students were given the task to create a holiday in Morocco for a family of four. The project

required that the family spend time at two locations in Morocco: a city and a beach, and have one excursion in either of the two locations. The students were given a budget for their holiday, and at the end of the project, students presented their holidays to a group of teachers at the school who then chose the best holiday.

4.5.2 School Profile

This school was chosen on the advice of the School Library Services (SLS), and the head teacher showed a willingness to participate when he was contacted by email. Additionally, the school does not have any centralised library provision; however, they rely heavily on the SLS, particularly for the resources that support the curriculum. The lack of centralised library provision was one criterion in the school selection process.

This is a small, rural community school with a population of 76 students. The low population of students means that there are two year groups in one class; the class observed in this study only had seven year 6 students. This combined year group scheme means that the curriculum is taught over two years to avoid repetition. The majority of pupils are White British, and there are no speakers of other languages. The school has one student with a Special Needs statement, and no students qualify for the free lunch programme. Although the school is in an affluent area, the catchment for the school is in a 25 mile radius, meaning that some of the students may come from areas of deprivation. The head teacher has been in his post since 2008 and there are five teachers and 3 teaching assistants in the school. An Ofsted inspection in March 2010 resulted in an outstanding rating (1) on the inspection scale.

4.5.3 School Library Provision

The size of the school does not provide the physical space for a centralised library. Instead, there is a large bookshelf in the entrance corridor, which is managed by the head teacher. There is a variety of non-fiction books based around the subject areas taught, as well as books from the school reading scheme. There is a small selection of fiction, and all are available for students to borrow. There is no library management system, students borrow and bring the books back when they are finished. The head teacher has never had concerns about whether or not students would return books.

The year 5/6 classroom had two sections of bookcases that held age appropriate fiction that the children could borrow. Additionally, there were bookshelves on wheels which were ‘hidden’ behind displayed bookshelves so that when the current year 5 class becomes the year 6 class, the teacher had a reading book stock that would be ‘new’ to those rising year 6 students. The teacher also encouraged her students to be involved in the process of selecting books for the collection, “especially if they are struggling to find things that interest them. I don’t want them to think ‘there’s nothing here I want to

read', I want them to get excited and see lots of books they can get inspired by." There is no specific budget provided for buying reading books, but teachers can request books, and according to the class teacher, these requests are generally granted. The head teacher was also asked if there was a specific budget for book buying, and he responded that there was a "budget set aside for reading schemes, which is part of the literacy budget, but then we have other parts of the budget which are set to other subject areas and that also feeds into the purchase of books."

4.5.4 Use of School Library Service

This school relies on their local SLS, particularly for topic boxes that support or introduce subject area topics. They buy a subscription, and each teacher is given vouchers so that they can borrow a topic box every term (3 boxes per year). The teacher explained that her topic box can contain "about 30 books (related to the topic) usually, and DVDs, they do try to do multimedia, or you can get a class set of books. We can also borrow RE artefacts." She also stated that "Library services are invaluable to us, we could not imagine being without them to teach what we do...we love it when our box arrives!"

Physical space is a reason that they use SLS so regularly; as the teacher said "we have not got the storage, and I teach this Morocco topic every other year...where would I keep all the stuff? Because after this, we've got the next topic, 3 topics a year, we just don't have the storage to own all the resources we need."

The head teacher elaborated on the kind of subscription to SLS that the school holds. There is one subscription for the topic boxes, which every class teacher buys into. There is an additional subscription that allows the school to have a set of fiction books that the school can borrow on a long term basis. As part of that subscription, they also have a member of the SLS come into the school and audit the books, taking out all the borrowed SLS books and switching them for more updated ones.

4.5.5 Use of ICT

Again, the size of the school is too small to have a separate ICT suite, so they have a bank of laptops that can be used in the classroom. They have Kindles for use by the older children, which are used for guided reading. The head teacher wants to invest in iPads, next; when asked how they would be used, he stated that he was not sure yet, "but I want to try and organise some training with Apple, so that I can get the teachers out and they can see how to use iPads with the children."

The school also maintains a subscription to Espresso Primary, which is an "online resource that supplements library books. I know many schools have opted out of using it, but we haven't, we've made really good use of it, and will continue to do so." Espresso is used by teachers as a directed tool, so they can target certain topics or lessons with specific supplemental resources or games. This is a further supplement to having physical books.

4.5.6 Use of the Public Library

The size of the catchment (about 25 miles, according to the head teacher) means that not all children live near a public library. The class teacher mentioned a mobile library; however, this service runs during the day when the children are at school. There are children who get involved in their nearest public libraries in order to participate in the summer reading challenge, which the head teacher supported by making a celebration day at the beginning of the school year, but again, because not all the children are able to access their public library, not all children are able to participate. The school does not have a local public library nearby that they can visit. The teacher expressed her disappointment that they did not have the opportunity to go to the public library to have some sessions on reading or research which she said she would find beneficial for the children. She stated that “it would be great to have a liaison from the public library, even if it was just to go once a year for a lesson on how to use the library. Very few of these children visit a library ever.”

4.5.7 Perceptions of the School Library/Librarian

When the class teacher was asked if the support of a school librarian would be appreciated, she responded that:

‘We’ve never had anyone do it for us, so it’s not as if I can compare and say that what they do, I do anyway, and could do equally as well. However, I might find that they do something in a way I hadn’t thought of doing, but works quite well with the children, because that’s their speciality, isn’t it? It would be interesting if that was offered, for somebody to come in and teach a session on research skills and how to do it, it would be interesting to compare.’

The teacher stated that she would “Love to have a library. It would be fantastic to be able to teach lessons in there, and go find books on the topics we’re doing.”

The head teacher was asked if they ever took advantage of their local SLS librarians, who would come in and do training with the teachers, but he said they did not use the opportunity, because the teachers had been using the topic boxes for so long, they did not feel like they needed further training.

4.5.8 Information Literacy Skills Instruction

Information literacy is taught as it is needed in this school, for example, according to the class teacher, they might have a short lesson on key wording search terms prior to a research based lesson although she did remark that “once they are there (using the computer), and they are excited about doing it, they do forget to do the things we’ve told them, so they don’t always put in relevant things.”

In terms of research, the students are exposed to a variety of sources, because of their regular use of school library services. This means that for every topic, they may use physical artefacts as well as books and the internet to learn about a topic.

The teacher mentioned that assigning independent research to students, where they get to research any topic of their choosing, is difficult for some children. She said that they “spend forever deciding what to do, and flit from topic to topic”, so they do not give themselves enough time to research the topic properly.

4.5.9 Entering the Field

Although School B was willing to host the researcher to observe the students, they would not allow access until after their year 6 standardised tests (SATs) were fully completed. The consent forms were distributed by the head teacher and class teacher, and they also provided the students with the explanation of the research study and what it would entail. A challenge was the combined year 5/year 6 group; there were only seven year 6 students in total. Consent was only obtained from the year 6 students, so the responses that the year 5 students offered during the observations could not be recorded.

4.5.10 Observations

The researcher observed five sessions in June and July 2013. Each session lasted approximately one hour, and all sessions were observed in the same classroom. Prior to the first observation, students had done some research on the country of Morocco, using the resources provided by School Library Services.

4.5.11 Task Definition

Students had been given the task prior to this session, so the teacher asked them what they could remember about this research challenge. Students volunteered and provided the teacher with a brief overview of the research task. The teacher then asked where they would be able to find their information for their assignment. Students gave a range of responses: computers, travel books, travel brochures. The teacher followed up by asking what kind of information they were going to be looking for in the resources they mentioned. “Hotels, flights and places to visit” was the response from one student. The students were also asked what kinds of information they may find if they use the internet. Their answers: ‘flights, places to go and more information about hotels’ gave an indication that they might find different information over the internet than they were likely to find using the travel brochures.

The teacher explained the differences between a travel guide and a travel brochure: “a travel guide is typically for the whole country and gives information about places to see and travel, while brochures usually give specific information about flights, hotels and excursions.”

Students were asked to explain what they should have by the end of the research challenge: “we should have a holiday to present” the teacher then asked to whom they would be presenting: ‘to the teachers, who will pick one of our holidays to take.’

Students were provided with a planning sheet to take notes on so they had all their information in one place. The students were paired up, and stickers were given to the year 6 students so that the researcher could identify them. The students reiterated the aims of the assignment when they were able to talk with their partner; it was clear from the full class introduction and the observed discussions in partner groups that the students had identified the information needed for their research challenge.

The student pairs were given a laptop, and a number of travel brochures specifically for Morocco were provided. The brochures were all from different travel agencies and most had detailed information about accommodation, flights and other amenities available.

4.5.12 Finding and Evaluating

The first session was focused on planning the holiday, so students needed to get some basic information in this session, flights and accommodations. They were given the choice of laptops or travel brochures, and most of the students began with the internet. Google was the page that opened once the students were logged into the school’s intranet, so it is set as the default search page. Only one pair of students used Google to begin with, two pairs went directly to either airline or travel agent websites, and one pair used the internet and a travel brochure simultaneously. In this session, students encountered difficulty with the forms that were required to get flight prices. They were not given any instruction on frequently used travel terminology such as flexible dates, self-catering, half-board and all inclusive. One student even asked for the definition of ‘destination’. Their confusion over the meanings of these terms meant they had difficulty getting the information they needed; they needed to ask for guidance before they could proceed. Students also seemed confused about the dates that they were given to go on the holiday; many of them were trying to book the entire six week summer holiday, instead of using the two week range they were given as part of the assignment (13th July – 29th August). Using the six week period meant that flights and hotels were difficult to find, and cost more than their allowed budget. The pair that used the holiday brochure was more successful in finding information, and they found what they needed more quickly than the students using the internet. The researcher asked the pair if the book was more helpful than the website:

Student: “Yes, we found that a family could stay here for £663.”

Researcher: “Wow, that’s a good price, does that include the flights?”

Student: “We aren’t sure, it does not say, so we’re going to check the hotel website to see. Also, we’re going to look for another hotel, because they have to have a week in a city and week at the beach.”

The challenge for all the students in the location of information in this first session was that hotel websites were not very clear about pricing, while the brochures were difficult because the children were not clear on how to navigate the layout; they were unsure about what was included in the price listed in the brochures.

Students thought it was important that the hotel website included photos for them to look at; they thought it might indicate a problem if there were none available. Another student wanted to phone the hotel to see if he could get a better deal over the phone.

One pair cheered during this first session because they “found a flight and hotel for £1479, the kids go free and it’s a 4 star hotel.” They used one of the brochures and an eyewitness guide to help them in their search.

By the end of the first session, only one pair of students had found flights and hotel within their budget, and was working toward finding some excursions for the family. The other pairs were stuck for several reasons. One pair would not use the printed books at all, so were trying to rely solely on the internet for their information. By the end of the first session, they had nothing filled in on their planning sheet. Another pair was set on a particular hotel because they liked the photos and the amenities, but it was well over the budget they were given. They did not want to look any further, which meant that they were having a difficult time fulfilling the requirements of the assignment.

At the end of the first session, the class teacher asked the students how they found the activity, and none of them thought it went particularly well. Students gave responses such as:

“We found a hotel, but the website was dodgy! It asked on the form how many adults and how many children, but when we clicked submit, it said no kids were allowed!”

“It did not go very well, we looked at airlines, and we liked a hotel, but it was too expensive.”

“We found it difficult to find flights, so that’s all we did today”

Class Teacher: “Was this harder than you thought?”

Students: “YES!”

Class Teacher: “what did you think about the holiday brochures?”

Student: “They were useful for finding hotels that were nice.”

Class Teacher: “Next time, we will look at the brochures first to find the hotels, they might be a bit more useful. You’ve found the internet quite tricky, so the holiday brochures might be better than the internet.”

During the second observed session, the class teacher spent time talking students through the brochures so that they had an opportunity to learn how to use them to find what they were looking for.

The teacher showed them the table of contents, and warned them to be careful because the brochures contained information about countries other than Morocco, and they needed to make sure they were looking at the right pages. The teacher then gave the students ten minutes to look through their brochures to figure out how they would go about booking their holiday by using the brochure only. The students worked together to navigate through the information in the brochures. They were challenged to look further than just flights and hotel; they did not take the catering options into account, nor did they think about having money set aside for travel expenses or for the excursion that was part of the requirement. Another difficulty for them to overcome was that they focused more on what the hotel looked like in the photos, rather than on the value for money.

Observation during this ten minute exercise revealed that students had some difficulty working out the prices in the brochure, particularly on the dates they wished to book their holiday. Again, they did not understand the terminology and they were not provided with any instruction about the brochures, unless they asked specific questions. Additionally, though they seemed to find better accommodations in the brochures, they were unsure about how the pricing structures worked, and they were not given any instruction on how to read them up to this point. The teacher finally stopped them a few moments into their task, and explained the grid at the bottom of each page of the holiday brochure. This was the grid that listed the prices for all the dates that the accommodation was available. This was the point at which the students finally realised that the prices listed in the grid were all inclusive; the total price included both the hotel AND the flights, which they had not understood when they were using the brochures on their own. Once they understood how the brochures worked, the teacher again set them to work independently to find the information they needed for their holiday.

While the students were working through this task, the teacher remarked that the students “were not very comfortable using books, if they are given the choice, they will use the internet every time because they perceive it as being easier.”

Another challenge for the students was their lack of knowledge of travel terminology; a whole class discussion with the teacher revealed that they could not work out the flight times because they did not understand the abbreviations the holiday airline companies used.

Most of the hour in the second observed session was devoted to teaching the students how to use the travel brochures. The teacher commented that she still thought that most of the students would choose to use the internet over the brochures when they were allowed to choose during the next session.

With some instruction of how to read the holiday brochures, the third observed session had minimal input from the teacher, and the students were able to work independently for the entire session. At the beginning of the lesson, the teacher gave the students a choice between the internet or holiday brochures (or both). In this session, students had to make the final decision about their holiday, so that the next session could be spent creating their presentations.

Every pair of students had a laptop and four (out of five) groups chose to use a laptop and a brochure. One student pair had planned their holiday; they intended to spend their time booking a car hire and looking for an excursion for their family. Another pair had also found their holiday, they spent time double checking the website for prices and looking for a few additional photographs.

There were two pairs of students who were further behind the rest; one pair were still looking for their holiday and they had divided up the jobs, one student looked at the brochure while the other was looking on the internet. The student looking at the brochure was still struggling to understand some of the terminology and was having some trouble understanding how the pricing structure worked. The websites proved challenging for them because they had trouble filling out the forms. The second pair had no information on their planning sheet, and were only using the internet to gather their information, which seemed to cause them difficulty, but they were unwilling to use the holiday brochures because they said the “way the prices were listed was confusing.” Although they were confused by the brochures, the internet was not yielding good results; they were frustrated because a few of the websites they found required login information in order to gain access, and also, use of the internet meant that they were consistently finding prices that were over budget because they were trying to find flights and hotels separately.

The difficulties that students seemed to be encountering had to do with the following:

- Flexible dates;
- Accessing websites that require a password;
- Fitting all the requirements of the holiday into the budget;
- Finding two hotels that fit into the price limit.

One pair of students was far ahead of the rest. They found all the necessary flights and hotels in both locations, found excursions in both locations, and managed to come in well under the budget.

Researcher: You finished much faster than the rest; did you find this assignment easy to do?

Student: Yes, it was hard at the beginning, because we did not understand how the websites and stuff worked, but once we figured out how to do the prices, it was quite easy. The websites were difficult, because they quoted different prices than the brochures, which was confusing, and it meant that we kept going over budget.

Researcher: So which did you use in the end, the brochures or the websites?

Student: We used the brochures; once we figured them out, they gave us all the information we needed to know.

Researcher: Will they have to pay for meals?

Student: No, both hotels include everything, food and drink.

Researcher: What about the excursions?

Student: One is to a historical building, where the entry is free, and the other is to a big market, where there is no entrance fee, but they can spend money on souvenirs if they want. We have £944 leftover for them to spend.

Researcher: Wow, you have money left? That's really good!

Student: Yeah, and the hotel offers different activities and stuff that you have to pay extra for, so this way, they can use some of that leftover money to do things at the hotel if they want to.

Researcher: Have you enjoyed this assignment?

Student: Yes...it was really interesting, and I've never booked a holiday before.

After speaking to this pair that was highly successful in finding the information they needed, the pair that had no information at all was approached:

Researcher: How are things going for you?

Student: Terrible!

Researcher: Can you tell me what's terrible about it?

Student: There are no holidays to Morocco!

Researcher: (laughs) Perhaps it's not really terrible, it's just not giving you what you want! What do you think you should do now?

Student: I'm not sure! (he and his partner carried on looking at the website they were on for a few more minutes, even though there was nothing there to meet their requirements).

This pair also had difficulty when they tried entering departure airports into the airline search function; when flights to Morocco did not come up, it frustrated them because they did not realise that even though the holiday company website they had chosen did fly to Morocco, this company clearly did not fly from London Stansted on the dates they wanted to go. They were prompted to try a different airport to see if the results were any different. Although they did try this, and they also found some hotels in the locations that they wanted, they still did not understand that the prices listed were per person, so it was taking them over their budget.

At the end of the lesson, the teacher stated that “though they seemed to struggle with the assignment, some of the writing about Morocco in other lessons showed that they had learned some things about the country as a result of their research.”

During the interview with the class teacher, she was asked if she thought her students were effective at finding information. She responded that:

“Sometimes, but it depends what they are researching. I think this assignment has challenged them because they’re not used to finding out about holidays, but if it was something they were interested in, something more familiar, they would find that much easier.”

The teacher also stated that lower down in the school, students are able to do research to write short reports, for example, when they learn how to do non-chronological reports, they are required to find information about an animal and they do that research independently.

The teacher observed that with some topics, the students are very good at finding information, but others clearly push them out of their comfort zone. According to the class teacher, the students are given instruction on how to find and evaluate information

4.5.13 Application and Acknowledgment

Students had a planning sheet so that they could keep track of each of the required aspects of the assignment. This eliminated the need for them to take notes; they only needed to fill out each field as they found the information they needed. At the end of the information gathering, the students were required to create a power point or other visual aid to present to a panel of teachers. Students who had found all of their information worked on their presentations. Creating the presentations was not a difficult task for the students; once they found the information, they only needed to use the planning map to plug in their information, and make their slides look attractive. In this case, the application of the information they found was straightforward and did not require students to interpret the information they found.

This was not a 'typical' research assignment, as the students were not using sources for the purpose of providing evidence for a research paper or project. As a result, students did not acknowledge where they acquired their sources of information in the final project. During an interview with the class teacher, the question of whether or not students were required to cite their sources in research assignments was posed:

Class Teacher:" It used to be that if I gave them a task, say, go home this weekend and find out some information about animals that live in the desert, they would come in with pages and pages printed off from the internet. I would ask them 'have you read it?' because I knew they hadn't. So, I will not accept anything like that anymore. It cannot be straight off the internet, it's got to be onto a Word document in their own words. I can tell if they've done it or not, but they are much better now. Note taking is a skill that we have to teach."

The teacher did state that she intended to assign a summer research project to her class, and after a discussion during her interview about using citation, she commented that she would add a citation element into this assignment, to prepare them for doing research assignments and also to encourage the use of a variety of information sources.

4.5.14 Summary

School B presented a unique challenge in terms of information literacy. The assignment they were given was not an activity they had ever completed before, and so their struggle with finding the information required may have been a result of an unfamiliarity with the details of the task. Their desire to be reliant on the internet, however, was clear during this assignment; their reluctance to use the holiday brochures when they presented some difficulty was also easily observed. The students required a good deal of support to accomplish their information seeking task, but again, was this result of their lack of information literacy skills, or simply a lack of familiarity with this particular information landscape?

This school also presented a challenge to the researcher in terms of rapport with the students. The lack of opportunity for the researcher to introduce the study to the students and distribute consent forms proved to be a limitation because the students were reluctant to initiate discussion until session three. Additionally, the mixed age classroom presented difficulty when the year 5 students, who were not asked for permission to participate in the study responded to questions or engaged with the researcher.

4.6 School C

4.6.1 Introduction

This school was recommended by the Director of the School Library Association; the school provides a centralised school library, and employs a postgraduate degree qualified librarian for 30 hours per week. These were also criteria for the selection of schools.

4.6.2 School Profile

The school is a large primary school with a total enrolment of 500 students. Most pupils are white British and very few speak English as a second language. A below average proportion have been identified as special educational needs and /or disabilities. The senior management is undergoing a transition this school year, the former head teacher is retired, but working a few hours a week to induct a new head teacher, who declined an interview because of her new status in the school. The school is located in a suburban area; most of the student population come from working class backgrounds, with small pockets of deprivation. There are 29 members of teaching staff and 25 teaching assistants. An Ofsted inspection in December 2012 resulted in a 'good' rating (2) on the inspection scale.

4.6.3 School Library Provision

There is a centralised library in the school, which is in an open area that children frequently walk through because it is a main thoroughfare for the ground floor section of the school. Additionally, the staff room and reception area are in close proximity, so many members of staff also walk through the library on a regular basis. The library is open every school day from 9:00 until 3:30. There is a qualified librarian employed for 30 hours per week, and a parent volunteer who comes in one day a week to assist in administrative tasks. There is a networked library management system, and there is also a bank of desktop computers for the children to use when they are in the library. There was a library budget of £3000 until 2013, when the budget dropped to £800.

The librarian has been in post since 2005. She was initially employed as a teaching assistant working 5 hours in the library, and 5 hours putting up displays in the school. This changed when senior management asked her to help with the teaching of research skills, based on the program '2020 Vision', which is a program that asks what skills will children at primary age need by the time they are 18 so their careers and their lives can be successful. The librarian was given further hours to teach an information literacy curriculum, but she was still not given any additional time to run the library. Eventually, she asked to work 30 hours per week so that she could accomplish both. She was responsible for writing the information literacy curriculum for her school, and she was able to teach sessions to each grade level for a number of years; the current year 6 class that was observed has had

information literacy skills instruction from the librarian since they began school. A new head teacher was appointed in 2013, and she is working with the former head teacher, who is working on a consultancy basis while he phases out of the school into retirement. The retiring head teacher appointed the librarian; the new head teacher does not provide the same level of support for the librarian that he did, and the librarian feels less supported now than she did in the past.

4.6.4 Use of School Library Service

The school used to have a 100 book subscription from the School Library Service, which usefully filled gaps in the provision. As the librarian improved the stock, the gaps were filled, so the need for book loans decreased, but also, the SLS stopped its book loan provision (and it is currently scheduled for closure). The librarian also stated that “any courses they offered no longer assisted me in my own CPD, so I have not used that element of their provision for at least 4 years.” There is another SLS based nearby, however, the cost of basic provision is high in relation to the school library’s need, as their stock is fit for purpose.

4.6.5 Use of ICT

There is no dedicated ICT suite in the school. The students can use the computers in the library, and teachers have access to laptops that they can utilise in the classroom. There are not enough computers in the library for each student in a class to have one, and the working space in the library is limited, so the librarian does not often host research sessions there. She often goes to classrooms when she is needed so that the students can use computers and have room to work as well. Additionally, the librarian moving to a classroom saves time because the students do not need any transition time, nor do they require time to turn on computers.

4.6.6 Use of the Public Library

The school encourages the use of the local public library; the librarian keeps all public library events on the school library website. The librarian also promotes the public library’s summer reading project, and provides celebratory and engaging events when school resumes in the autumn.

4.6.7 Perceptions of the School Library/Librarian

The librarian was employed by a head teacher, who was supportive of the library and valued having a librarian on staff, but he has retired, and a new senior management team is in place. The librarian feels less supported by the new senior management, “every new head teacher has their own approach and agenda and I feel less valued than I used to.” The new senior management, along with a few teachers, made the decision to stop the information literacy sessions that the librarian was providing, because they felt that “I was duplicating some of the techniques they were being shown, so they felt it was

taking up valuable time. “Also, the librarian was told that she had “modelled research skills so well that the teachers knew what to do and therefore they could do it instead.”

Her role in the school now is to teach the students about e-safety, which is being put into place by many primary schools to teach students about being safe in the online environment. The librarian did comment that though she feels a “sense of relief to only be teaching one lesson on e-safety, information literacy is still important for them to learn, so time will tell if the students become less competent.”

Overall, the librarian does feel valued by the members of teaching staff at the school. When teachers are looking for resources, she can find things much more quickly than the teachers can because she knows the collection so well. In addition, the information literacy lessons in the library were a chance for the librarian and the class teacher to embed information literacy concepts into the topics the students were studying in class “if a teacher gets involved, they make connections with the topics during the term.”

During an interview with the Deputy Head teacher, she was asked by the researcher if she felt that the librarian’s role in helping with information literacy was helpful to teachers. She responded that information literacy is not “something we have to teach within our curriculum, but it is a life skill, and it aids and supports the students and quickens them up in research when we are doing projects like the one you observed.”

The Deputy Head teacher also discussed the students’ ability to check the information they find from the internet, something that they learned from the librarian’s lessons. She said that this was helpful not only from a safety aspect, but also because the “children are now very astute at knowing that though they have found some good information, they still need to check to make sure that the information is correct by using another source.”

4.6.8 Information Literacy Skills Instruction

The librarian wrote and implemented an information literacy curriculum for the current year 6 class, and held sessions on information literacy based in the library with the librarian. She had a timetabled lesson once a fortnight with the year three class and the year five class, with information literacy as the theme. She describes the lessons as follows:

“What I tried to do was make sure I knew what the topic was for the term and think about the age of the children and what wanted to teach them. I formulated a lesson plan over three lessons, because that’s what I had; three, thirty five minute lessons over one term. They would be stepping stones, so that they could gradually increase in difficulty to the point where in year five they were evaluating and comparing different websites and trying to see what the website was trying to tell them, whether

the text difficulty was right, how the layout was and how easy or difficult it was to navigate. They reached the point in year five where they could make evaluative judgements about website content.”

Although the librarian did not do any specific staff training to teach them how to teach information literacy skills, she did feel that she modelled instruction well enough for teachers to take back to the classroom to reinforce the concepts she thought were important. “I am hoping that the teachers in year three, four and five who have witnessed what I was doing will have taken things back to the classroom and phrased them in a certain way because of how I’ve modelled it for them.”

As discussed in Section 4.5.7, the librarian is no longer teaching the information literacy sessions to the students. Instead she will be teaching some sessions on e-safety, which does “include being a digital citizen, and being able to say where they got information”, so there will be an element of some information literacy skills still included in these sessions.

4.6.9 Entering the Field

The researcher visited the school a few weeks prior to the observations to meet with the class teachers and the students. The consent forms were distributed to the students and the research process was explained to the students. They were encouraged to ask questions about the project if they had any. During the subsequent observations, however, rapport was difficult to establish in such a short time. The researcher was only present over three days for about an hour each day. Although the students who were questioned responded, their answers were brief and they did not initiate discussion with the researcher.

4.6.10 Observations

The researcher was present over three days, for an hour literacy lesson while the students did research on rivers with a partner. Their task was to find information about all the parts of a river, diagram a photo of a river, and explain each part with some detail. They were also studying rivers during their geography lesson in the afternoon, so though the emphasis during the observations was on the writing aspect, the students did have some background provided to them in another lesson. The students were instructed to find out about the parts of a river using websites that the teachers provided for them, books that were stored in the classroom, or by searching the internet independently. The researcher observed three different year six classes, who were separated into ability groups: high, average and low ability. The choice to focus more attention on the lower ability group was because of the interest in investigating whether the lower ability group in this school with a full library service performed any differently to the students in the other schools who were of ‘average’ level.

4.6.11 Task Definition

Students were required to write an explanatory text about rivers and their parts by the end of the three day topic. On day one, the students watched a documentary about rivers and their parts, and the students were instructed to take notes on the film as they watched. Once the documentary was over, students were directed to a power point presentation, which would give them further information that they could document into their notes. In all three ability levels, students set to work immediately following the instructions, and there were no questions or confusions about what they were supposed to accomplish in the three day topic lesson.

4.6.12 Finding and Evaluating

The first group to be observed was the average ability group. As they began to search for their river information, the class teacher reported that these students are “amazing at research, you can give them any topic, and they can go with it independently.” The teacher was asked if he thought that the librarian played any role in their ability to do independent research and he responded that “she does – what they learn with her is the validity of the websites, there’s a lot of trash out there on the internet, so she helps them make decisions about whether the website is good or not.” The researcher asks if that works, and the teacher said “for the most part, yes. I mean, they are kids, so sometimes they rush, but they do tend to be careful and consider the sources they use online.”

The researcher walked around the room, and observed that one pair of students had finished watching the informative PowerPoint presentation they were directed to, and were now searching the internet.

Researcher: Have you moved on to the internet now?

Student: Yes – we finished, so we used Google to help us find this website (Fun river facts for kids).

Researcher: How did you find that website using Google?

Student: We used rivers in the search, then scrolled down until we found this one, and the name told us it might be a good choice. We can also use Woodlands Junior.

Researcher: What is Woodlands Junior?

The pair demonstrated the website by logging into Woodlands Junior, which is run by a primary school in Kent and provides subscription resources for all Key Stage 2 students across the country. They went straight into the Geography page, and found the resources and information about rivers – virtually all the information they needed for their assignment.

When the students were using the web, they used Google, and they scrolled down the list of hits to find appropriate websites. Note – taking was excellent; the students used bullet-pointed key words. By

the end of the session, the students had found all the information they needed, and had them written into notes, ready for the next step in their assignment.

The researcher moved into the lower ability group class as they begun the research assignment. They watched the same video and took notes, the main difference with this class was that the teacher stopped the video periodically to ask clarifying questions. As with the last observation, the students in this class also had excellent note – taking skills. When the video was over, the class teacher asked “what the problem was with using the video exclusively to find information about the topic.”

Student responses:

It’s not very interesting

It did not give us all the information

Class teacher: What other ways could we do this research to get more information?

Students:

Websites

Books

Interview someone

Ring an expert

Class teacher: how might we organise our research?

Student: We could get into groups and each group would choose one part of a river. Then one person in the group becomes an ‘expert’ and can go to the other groups to give them the information.

Class teacher: Excellent, that’s called an ‘envoi.’

Class teacher: you will be collecting information from the video we watched, a power point, some books and the internet. Why is it not effective to get information from one source?

Student responses:

The source may not be true, so you need to check to make sure what you find is right.

Things change over time, and one source may not have updated its information.

Class teacher: Good. We will carry on with this tomorrow.

Each observed session lasted approximately 30 minutes.

On the second day of observations, the researcher was asked to observe the higher ability group while the lower group finished a spelling lesson. At the start of the lesson, the video was not working, so the students began the research right away. This class, like the others, were in pairs using the laptops. They were given two websites to begin with.

About half the pairs used recommended websites to start finding information. The other half used the power point presentation that was shown to the students in the other groups yesterday.

The researcher asked one pair why they decided to use the power point first:

Student: the power point has most of the information we need, the websites help to fill in anything we might be missing.

Student: plus the power point was written by our teachers, so we know the information is probably right.

The class worked independently for the whole session, and did not require any guidance from the teacher. Like the other two observed sessions, this group confidently and efficiently took notes. Students were engaged with the task, and did not have difficulty finding information from any of the sources they used. This group worked quickly; they were ready to create their story maps and begin writing in less than half an hour.

This group also had an extra diagramming requirement in addition to their writing, but even with the extra, they will be finished with the assignment by the end of the lesson.

The researcher then went over to the lower ability group again, as they were just starting the activity for today.

The class teacher instructed them to use their notes from yesterday, laptops and books. Each small group was given a section of the river to research, and they will work in envoi style. Books relevant to the topic were distributed to each group. There were more than enough books for each group to have a small stack relevant to their section of the river.

Class teacher (addressing a small group): Where is the best place to search for information in a book?

Student: The index, and the table of contents. (The student then looked in the index, found what he was looking for, and took note of what he found).

The books were the first resources used by every small group in the class. They took notes as they found things in the books, then moved onto the Power point presentation to gather more information. Each group stuck to the resources provided by the teacher (books, PowerPoint, recommended websites), rather than search for their own sources of information.

One group did use Wikipedia after they had used a book source and the Power point presentation.

Researcher: What made you decide to use Wikipedia?

Student: We found this fact on Wikipedia that we did not find in the book, and it was a really good fact.

Researcher: What will you do now that you've found it?

Student: we are going to see if the power point has any more information we might not have, and check to make sure the fact we just found is right.

Researcher: What do you mean?

Student: Well, we just need to look at another website to see if this is right; Wikipedia does not always have correct information.

Since the other two ability groups were close to finishing their assignments, the researcher was going back on the third day to continue the observation with the lower ability group.

Today the students will organise their notes into paragraphs. The teacher modelled the diagram that the children should use for their final explanations. The students offered explanations for some of the key river vocabulary words: meander, tributary.

Each group of students presented their information from yesterday to the other students in the other groups.

While groups presented their information to their groups, the researcher had an opportunity to speak to the student groups about where they found their information, and where the most useful information was found.

Researcher: Where did you get most of your information?

Student: Books and the internet were the most useful.

Researcher to another group: Where did you find the most useful information?

Student: Books.

Researcher: What was most useful about the books?

Student: Because you know that the info that you find in the books is true, and you cannot always trust the internet to give true information.

Student: The books were really good, but we found some things on the websites we were given, too, so they were the most helpful.

This was the first group in any of the three schools observed that used book resources alongside the internet for their research. The student belief that books have higher reliability is something that they were taught during their library lessons with the librarian, and they also learned how to evaluate the websites they use.

While observing note – taking again during this exercise, it was noticed that note – taking was efficient, and students took brief, but useful notes for their research.

The group completed all the research and note-taking by the end of the sessions, so they were ready to do their small presentations in tomorrow’s class.

4.6.13 Application and Acknowledgment

The ability for students to effectively take notes resulted in their ability to write their final papers more quickly. The higher and average ability groups were able to transform their notes into an appropriate written structure, while the lower ability group was able to write a presentation for their river section and present that to the other groups in their class. They did not copy any passages directly from any source, nor did they cut and paste any of the information that they found into any of their writing. They used the notes to guide their writing, and wrote their explanatory essay in their own words.

The reading and writing skills were the main skills that were being addressed during this lesson, not necessarily how they went about doing the research. The teachers were assessing their abilities to read for information, understand what they had read, and apply report writing skills to their final task.

Citation of sources is something that the librarian does cover in the spring and summer with the year 6 class, so that she can start preparing them for high school work closer to the end of their school year. She covers the subject of citation lightly, because she does feel that “they are still a bit young to manage that,” but they are exposed to the idea that they should give credit to the sources they use.

Acknowledgement of sources was not suggested in any of the three ability groups that were observed.

4.6.14 Summary

The librarian in the school has been an integral part of the whole school vision for many years, and up until a new senior management team, has felt valued within the school. She has been able to write and implement an information literacy curriculum that she has felt has helped her students to find and

evaluate information. Additionally, she has created a reading culture throughout the whole school, and the enthusiasm of primary school students using the library was witnessed during the visit. Teachers feel that the librarian supports the curriculum and their teaching, and the skills the librarian has modelled for teachers during her information literacy skills lessons have been adopted by many members of the teaching staff.

The year 6 classes observed demonstrated an ability to research easily, effectively and independently. Even the group labelled as low ability did not need a great deal of support during the independent research portions of the lessons, and they did not need guidance on where to find information. Additionally, they were able to use a variety of sources to find their information, and take useful notes that they could use later.

4.7 Reading culture

The most significant finding was the link between a whole school reading culture and information literacy development. In the school where there was a dedicated school librarian who provided information literacy instruction, stocked books relevant to the curriculum and also promoted reading for pleasure, not only was reading embedded into the whole school curriculum on a daily basis, but students performed better at their research assignment.

The definition of reading culture (which will be discussed further in Chapter 6, Section 5.2) emerged from a comparative analysis of the data from each school case study, which clarified that a reading culture can be defined as: the way reading is taught, the instructional materials used to teach reading skills, the encouragement of the students to read and how each student's individual reading needs are met. This definition of reading culture also extends to reading for information; in schools with strong reading culture, students are given opportunities to read to find information as well as to read for pleasure. It was also noted that the facets that foster a strong reading culture are: a shared reading mission by the whole school, the leadership of the head teacher and governors, and the reading resources provided by the school.

4.8 Borrowing statistics

Borrowing statistics were considered in Schools A and C, because they both used computer based library management programmes to issue and return books. Although borrowing statistics are used by librarians as one way to evaluate the effectiveness of their library services, these statistics are not evidence of reading progress in students. For example, in School A, the lack of a staffed librarian meant that many of the students took books out of the library, however, there were a number of books that were never returned, and never omitted from the catalogue. Although it was important to examine these records, they were not a reliable measure of how much students were reading.

4.9 Financial Considerations

In the first school observed, the head teacher was adamant that she would never have money in her budget to hire a professional librarian. During a review of each of the study schools' league tables on the Department for Education website, it was discovered that the two schools that did not employ librarians actually had a higher per pupil income than School C, which did employ a librarian. While the percentage of their outgoings was similar, the school that employed a qualified librarian 30 hours a week did in fact have a lower per pupil income than school A, whose head teacher said she would never be able to afford a school librarian.

4.10 Expert interviews

As introduced in the Methodology, section 3.10.2, two expert interviews were conducted with Geoff Dubber and Dr Andrew Shenton. They were able to give first-hand accounts of working in school libraries, and spoke about the challenges of managing school libraries, and the role of the school librarian. They also gave valuable information about the state of information literacy and how schools neglect teaching in that area.

Mr Dubber has been in education since 1970. He had had some interest in libraries already, but went into humanities teaching in North Gloucestershire in a 1500 strong comprehensive school. And, within 4 or 5 terms, he was given charge of the library. He was interested in the teaching and learning aspect of school libraries, so he took on the challenge of managing the library, and remained involved with school libraries for 40 years. Mr Dubber comes into libraries through education, not through library qualification, and that is why his emphasis is in the teaching and learning bit, rather than the pure library.

When Dr Shenton began his higher education, he felt he had to choose either education or librarianship. He chose a BA in librarianship and specialised in literature for children, and became a teacher and taught in a first school for 6 years. When the IT manager at his school retired, and they needed somebody to fill his job, he moved into IT instead of into school libraries. Dr Shenton began to realise that with a degree in librarianship, he should be expected to know more about the kinds of things the students wanted to find out about. He observed students spending a whole class period doing research, and he wanted to know more about the kinds of mental processes that the children went through to find information. That was the origin of his PhD at Northumbria.

Three themes were identified in both of the interviews:

- Librarians: the role of, collegiality with teachers and the perception;
- Information literacy: lack of consistency, why these skills should be taught, information behaviour in young people;

- The role of the school library: value, perception and evaluation.

4.10.1 Librarians

Both respondents agreed that a librarian who can manage the school library and teach information literacy was important. They also had views on why the status of school librarians was so low in schools. Mr Dubber expressed the frustration that many school librarians both in primary and secondary sector do not look at the Ofsted website at all. They do not look at the Department of Education website at all, so they do not have the remotest idea what is going on, and they expect somebody somewhere to tell them but of course nobody does. He believes that librarians, as information managers for the school, should be providing that documentation to the people in the school, rather than waiting for them to come to you. Mr Dubber also expressed that collaboration between teachers and librarians is difficult because they “do not speak the same language”; teachers do not understand what librarians do beyond checking out books, and librarians are not knowledgeable about the curriculum or the learning objectives, which makes it difficult for teachers to see librarians as an academic resource.

Dr Shenton made an interesting observation about why librarians are perceived as having a lower status in a school: he stated that to an outside observer, librarianship basically involves organising information in such a way:

“When you go into a library, that's what you see people doing, they are putting books on shelves, and they are sourcing things out but it's not the librarian who is doing that, it's the library assistant. There's this tendency to assume that everybody who works in a library is a librarian. When you go into a library and you see people at work, very often you see them putting books away, putting books on shelves, so the myth persists that that is what librarians do. I think it's dangerous because a lot of the real skills of librarians lie so far behind that it's not what people see, you know, they do not see the fact that it's about classifying information cataloguing indexing it on a high level sometimes. Perhaps it's what's going on in the head, rather than the outward manifestation of what people see.”

4.10.2 Information literacy

The lack of information literacy instruction at primary level leaves students unprepared for information seeking assignments in high school. Mr Dubber addresses this issue, and states that:

“The capability of a child in year 6, and what they're expected to do in the autumn/winter term of year 7 is like going from primary to a PhD in a matter of seconds. The targets are just way beyond the abilities of the students. What they are expected to find out, the projects that they are given in year 7/8 is absolutely phenomenal compared to what they get in year 6 SATs”.

Mr Dubber also discussed that not only were the students lacking information literacy skills, they also lacked the basics of the Dewey Decimal system and that many primaries do not even offer that for

students to be able to find information easily. He states that “we owe it to our students that when they leave year 6, they can use a range of resources, they have visited a public library and they can use the Dewey system.” Dr Shenton, in contrast, believed that knowing the Dewey system was valuable only if we expected students to go on and use libraries, but with our students, the only experience with libraries that they have is school library. Dr Shenton thought that perhaps if they go on to higher education then maybe they will use a different kind of library in a few years’ time, but then there are some higher education libraries that do not use Dewey. Rather than concern about students’ knowledge of the classification system, Dr Shenton was more concerned about work that has been carried out in relation to youth information behaviour. He addresses the issue that there is far too much emphasis placed on young people and their use of electronic materials and not enough in other areas.

4.10.3 School library

Dr Shenton was asked his view on why having a school library does not appear to be a priority, especially when there is evidence from other countries to support that libraries do improve academic achievement. His thought was that “generally books and libraries aren't getting the kind of priority we'd like because as we intimated earlier, they aren't statutory”. Despite a lot of lobbying from various groups, the bottom line is that “if something's not statutory, it's not important”. Libraries are “very expensive and I know from talking to several head teachers that one of the problems is that you can spend hundreds of pounds on books but when you look at what that equates to volumes on shelves it's very little and that's worrying”. He also thought that “perhaps senior managers seem to think of libraries in stereotypical terms the quiet area or the librarian is the custodian of the books or the paper materials but not too much beyond paper. And then, you do get libraries hijacked for other purposes the sin bin, sick bay, that sort of thing. So all of these give the impression that school libraries aren't actually that important”.

Mr Dubber offered a view that head teachers offer when considering library provision: “There are three ‘Ps’ in primary schools libraries: Provision, Practice and Promotion. What you find is that most schools go for provision. I’ve seen loads of new heads who come in, look at the library and say ‘what a load of rubbish!’ They fling everything away, get new carpets, get some beanbag chairs and a load of new books, then scratch their heads and say ‘now what do we do with it?’ What you should start with is the practice. You justify the school library in terms of raising attainment for the school. If the library is there, how is it raising attainment? How is it contributing to the children and their literacy levels?”

This phrase is addressed again in the Discussion, Chapter 6, because it brings up a good point about the perception of what function the library serves in a school, and how head teachers ultimately decide

what level of library service to provide. Additionally he discusses the importance of librarians being able to evidence their value to a school, “the person who runs the school library should be able to justify the school library in terms of SATs results. If they cannot, then why have they got a library?”

Both interviews provided insight into the ways school libraries and librarians fit into a school model. Their backgrounds with teaching, as well as with first-hand experience with a library enabled them both to see the value that is offered by school libraries that are run as academic resources, rather than just a room for books. They are both prolific writers in the area of information literacy, and the interviews highlighted the importance of student information literacy development.

The interview with Dr Shenton was scheduled prior to the data collection in schools. It was valuable to have some understanding of an expert’s view of school libraries before attending the school sessions, because his insights were considered when formulating the questions for head teachers and teachers. Mr Dubber’s interview was after all the data collection, and what his expertise contributed was the support of the findings that were already coming to light; that qualification of librarians is valuable, that provision of space is not often enough and that information literacy is only effective if it is taught and assessed consistently.

4.11 Summary of findings

The observations of the three schools led to the following findings:

Finding 1: A whole school reading culture contributed to the information literacy development of year 6 students, because students were encouraged to read both for pleasure and to find information that supported the curriculum;

Finding 2: Senior management promotion and value of the library as an academic support, rather than a 'luxury' service positively contributed to the reading culture because they recognised the importance of having a well-resourced library, as well as a dedicated manager to promote reading.

Finding 3: A qualified librarian dedicated to the library positively contributed to information literacy because she was able to promote reading for pleasure and provide resources that would support the curriculum;

Finding 4: Students who had library stock related to the curriculum used book resources as well as the internet to search for information, which was not the case in the schools who did not have relevant book resources.

Finding 5: Students who practiced research skills under the instruction of the librarian had more confidence in using both book resources and the internet when searching for information.

Finding 6: Information literacy instruction among the three schools was inconsistent, which is generalizable across primary schools in England because there is no recognised framework for information literacy in England.

Considering schools A, B and C, all had very different approaches to teaching students the research process, and those approaches were dependent on the instructor's knowledge of how to conduct research.

These findings will be discussed in further detail in Chapter 5. In addition, examples of 'good practice' for effective school library provision based on the observations will be explained, and the wider impact of inconsistent information literacy skills will be detailed.

Chapter 5 Discussion of Findings

5.1 Introduction

This chapter will discuss, in further detail, the case studies presented in Chapter 5. The themes presented in this chapter emerged through the interviews with school personnel and experts, the conversations with students, and the interactions of the students with the resources during the observations.

The findings from the observations in School C indicate that students who had been given information literacy skills instruction with a professional librarian from Reception (aged 4) to year 6 (aged 11), were more efficient at carrying out research tasks than those who were not given the same instruction. This led to an unexpected finding, which linked a school wide reading culture, to higher information literacy abilities in School C. When a qualified librarian contributed knowledge and teaching of information literacy as well as promoting reading for pleasure, the students read equally for pleasure and information, so their ability to locate, evaluate and use information was greater than in the schools where there was little reading culture. Evidence of this can be found in the Findings Chapter 4, Section 4.6.

A model to demonstrate the relationship between the factors that create reading culture and influence information literacy was developed based on the comparison of the observations of the children in the three schools, and can be found below. The model was developed with the intention that it could be applied to other schools.

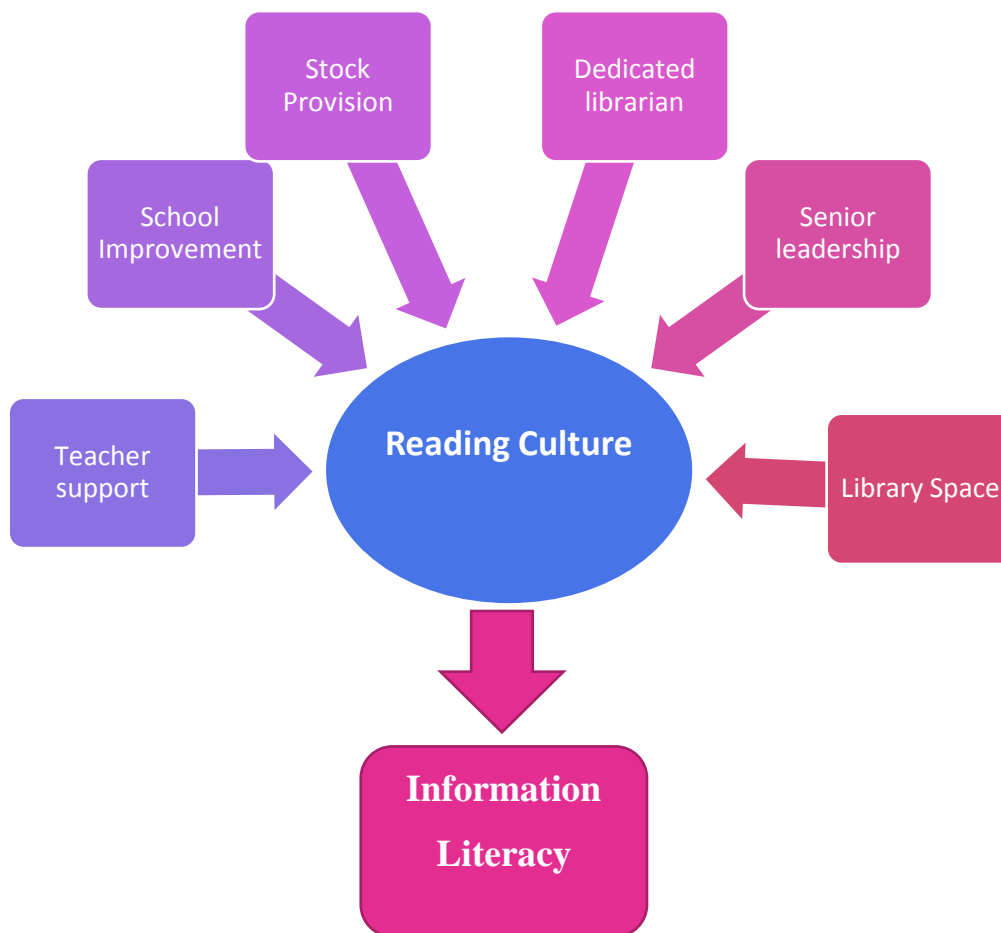


Figure 2 Reading Culture and Information Literacy

Although the link between reading culture and information literacy ability was an unexpected finding, because reading culture was not identified as a potential finding from the start of the research, several patterns emerged during the observations about the provision of school libraries and the instruction of information literacy. In the school which had a school library with a qualified librarian in post, school leadership, school library staffing, stock provision, the schools improvement plan all contributed positively to student confidence, reading culture and information literacy skills. Figure 2 is a model that illustrates the key contributions that work together to create a whole school reading culture. In this study, a strong reading culture was shown to lead to improved information literacy, which is also indicated in Figure 2, and discussed in the following section.

5.2 Reading Culture

What was revealed in a comparison of all three case study schools was that there is a link between a strong reading culture and the information literacy skills of year 6 students. After spending time in School, the researcher determined that a whole school reading culture is present when there is a library space and a dedicated librarian managing the library service. The library was a focal point for the students in the school, and they were allowed access throughout the day. While the researcher was visiting the library between class observations, the library was never empty, and the librarian's

assistance was requested frequently for help choosing books, or to discuss a reading competition she carries out with the year 5 students in the school. A year 3 class was observed using the library with a teacher, and although they were there to exchange library books, and not as part of a lesson, the students were engaged in the library, again, discussing the books they had read as they returned books. Two students asked for help choosing a new book based on books they had read previously, and the librarian was able to direct them to fiction she thought they would enjoy. Students in school C, where a whole school reading culture was practiced were also better at finding and using information than in the other two schools observed in the study.

School C, which employed a professional librarian, fostered a reading culture within the school, which provided a mix of reading for pleasure as well as reading for information. Reading of both print and online sources was actively encouraged, and students had opportunities to use both media for pleasure reading as well as to search for information. Additionally, students reading for information were guided by the librarian and the teaching staff by the provision of books and websites that students could use for more efficient searching. This meant that the students had reliable sources of information for the topics they were studying, and instruction had been given about why those sources were reliable, for example, the students had been taught that books were more likely to be fact checked and edited so the information would be up to date and correct. The students were knowledgeable about what websites were subscribed to by the school, and they had been instructed about how to evaluate websites by the librarian.

The National Literacy Trust report, "Developing your whole-school reading culture" (no date) focuses a two year development plan on reading for pleasure only, it does not talk about how reading for information can be another strategy in building a whole school reading culture. This focus on reading for pleasure is argued by Heeks (see Chapter 2, section 2.17), who asserts that when a school library is present, it must support the curriculum to advance learning. This adds support to the practice of embedding reading for information in the daily lives of students. Based on the observations in School C, where a whole school reading culture was present, reading culture existed because reading for information furthered the school's efforts to make reading a daily, sustainable activity in the school day. Additionally, embedding reading for information in with class topic work meant that teachers did not have to designate reading time, which was observed in Schools A and B as 'forced' reading time, rather than for pleasure or to find facts.

Based on the observations in school C, the following were identified contributions to a whole school reading culture:

- Access to the library: students in school C had access to the library every weekday during school hours, but Schools A and B did not;

- A qualified librarian: the librarian was dedicated to the library, and could promote reading for pleasure as well as help the students with information searching. She was also available during the hours that school was open;
- Stock provision: the non-fiction stock in School C was reflective of the curriculum and the fiction was based on student suggestions, popularity, and librarian knowledge;
- School improvement: the librarian was part of the school improvement team, and set targets for whole school literacy goals.

These elements that contributed to reading culture also extend to reading for information; in School C, which had a strong reading culture, students are given opportunities to read in order to find information as well as to read for pleasure. It was noted that the following attributes also fostered a strong reading culture:

- A reading mission shared by the whole school;
- The leadership of the head teacher and governors.

School A was the first school to be observed in the study. As described in Chapter 4, the library was newly refurbished, new fiction books were purchased, and reading for pleasure was emphasised by the head teacher. Although there was effort made to encourage a love of reading in the children, and that was the vision of the library by the head teacher and the literacy coordinator, the perception of these two people was that the library was a ‘luxury’ and a ‘guilty pleasure’ did not foster a reading culture in the school. Although the students were given time at the beginning of their literacy lessons to read a book of their own choosing, they did not use books to find information, and there was no intention to stock books that would underpin the curriculum. In avoiding books that are relevant to the curriculum, it meant that reading was not embedded into the everyday class activities. Reading for pleasure was emphasised, reading for instructional purpose was not. Additionally, the separation of the computer suite from the library also gave a physical disconnect between the internet and books, which meant that the internet was the only source the children were provided when they were looking for information. The school library, which was refurbished in an effort to inspire the students to read more, had limited hours of operation, so the children were not able to access the library regularly. Additionally, the Year 6 teacher discussed the lack of time during the week because of the difficulty of covering all the topics needed in the year, so there was little time set aside during lessons to allow the children to explore the library on a regular basis. This meant that reading was not really part of their school day; reading tended to be scheduled at certain times of the day, and the students did not read during break or lunchtimes. Students were also required to maintain reading logs, and their ‘homework’ was to read every night and record this. The teacher of the observed class issued a consequence if a parent had not signed their reading logs. Although this school’s vision was to

promote the pleasure of reading, the practice of reading was scheduled and forced, neither of which fosters a love of reading for pleasure. In addition, they were not encouraged to use the library to search for information from books; if they were, it would mean that they are reading as part of a normal class session, so reading would not have to be scheduled as an 'extra', but rather it would follow the natural course of the day, expand their knowledge about the topic, and support their literacy without 'wasting' precious time.

This was sharply contrasted by School C, where the reading culture could be 'felt' as well as observed. The library was open and operational for 6 hours of the school day, and there were students observed in the library throughout the day. Additionally, students were observed interacting with the librarian frequently when they were searching for books; they either asked questions about available books, or spoke to the librarian about books they had read and enjoyed. There was a yearlong, year 5 reading competition taking place under the sponsorship of the librarian, so some of the students visited the library to report progress. The year 5 students who were observed talking with the librarian about the reading competition were clearly enthusiastic about the event, and reported their progress with excitement.

Students were allowed in the library during break and lunch times, and the library was crowded at these times. Many of the students were observed returning or searching for a new book, but there were students who used those times to engage in silent reading. They kept records of what they read, however, they were not required to read as homework; their parents signed their reading logs in an effort to encourage parents to talk about the books their children had chosen. This practice was due to the librarian and her effort to keep the students engaged and excited about reading for pleasure.

The focus on reading continued in the classes that were observed during the research. Every teacher spoke to the librarian about their topics throughout the school year, and the librarian ensured that she purchased stock to support each topic. Some of the books were used in the classroom to support research assignments, some of the books remained in the library so that students were able to access them for extension activities or to foster their interest in particular topics. Students were provided with reading materials to search for the information they needed for the assignment, and they were actively encouraged to use the books as well as the internet to find their information. The parts of the book were reviewed by the teachers prior to the students using them, and they were guided to use the table of contents and index to help them find their information.

School B presented a challenging aspect of reading culture, because although they did encourage reading for pleasure as well as for information, they did not have the physical space to provide a library and they did not have a school librarian. The reading culture in School B was quite similar to that of School A. Although they did not have the space for a library, they were heavy users of Schools library Services, both to underpin curriculum topics, but also to make sure they had a wide variety of

age appropriate fiction books for students to choose. In addition, the head teacher created a literacy budget specifically so that teachers could provide fiction books for pleasure in classroom libraries. The head teacher did state that they did not take advantage of School Library Service in services where teachers could learn about how to teach information literacy, but it was because he felt that teachers did a good job in teaching those skills using the resources provided.

5.3 School Leadership

There is no evidence to suggest that senior school leaders are provided with instruction on how to use their school libraries and how a school librarian can support the whole school curriculum (Kaplan, 2007). Unless they choose to learn more about the contribution of school librarians by reviewing the research on libraries and academic achievement, much of the perception by school staff may be outdated (Hartzell 2002); this was also evidenced in the interview with the head teacher in school A in particular, who perceived librarians as purely administrative, responsible for keeping the library tidy and checking out books, rather than an academic support of the curriculum.

The employing head teacher in School C and the school librarian held a shared vision for what the school library should provide for the students and teachers in terms of academic and curricular support. Additionally, the head teacher was an advocate for information literacy and the librarian was able to collaborate with him to develop an information literacy curriculum tailored to the school, and to meet the skill levels of the students from every year of primary school. This shared vision is significant because it is one of the things that is lacking in many head teacher and librarian relationships where the librarian is seen as administrative only. This was the case in School A, where the head teacher's vision for the library did not match the librarian's vision. The head teacher did not view the library as an academic resource, did not see the point in having books to support the curriculum when the computer was faster and provided results instantly. Based on the interview reported in Chapter 5, the head teacher also did not feel it necessary for the librarian's role to include teaching information literacy because that was the job of the class room teacher. Her vision of the library was to encourage more reading for pleasure, and the librarian's role within that was administrative; the librarian's main role was to maintain the organisation of stock. This was also reflected in the job description of this post; the title of the post was library assistant, and there was no scope for the position to teach students how to use the library, or even to order stock based on the curriculum. The post was overseen by the Literacy coordinator, who had no formal training in library management and was a full time teacher with other leadership responsibilities. She was not dedicated in the library during the day, so the library had limited opening hours, with only student library assistants to attend to the library during lunch hours.

The governing body of a school also plays a role in the status of the school librarian and the kind of library provision that a school has. According to the head teacher in School A, it was the board of

governors who terminated the library assistant post, stating that the small amount of money spent employing the researcher five hours a month could be better spent elsewhere.

Head teachers' perception on the instruction of information literacy determines the consistency at which these skills are taught. School C provided an example of what information literacy instruction can be when the head teacher values that as part of the overall vision of the school. As reported in Chapter 4, the head teacher who employed the librarian in School C thought it was important that students have an information literacy curriculum based on the 2020 Vision report (2006), which was published by the Teaching and Learning Review Group. This report established how the education system "might enable learning and teaching to meet pupils' needs most effectively." The group's focus was on personalising learning so that students can transfer independent learning skills from school into the world. One of the areas in which this group focused was on technology and the importance of students understanding how to use technology, but also having the ability to locate and critically evaluate information (p. 10). The head teacher based this report on his decision to employ the librarian, and she was charged with the task to write and co-teach an information literacy curriculum. The students who were observed in year 6 had been using that curriculum since they began school in reception (aged 4), and carried on through the whole of primary school, with the librarian instructing them in regular lessons throughout the school year.

The senior management support in School C was sharply contrasted by School A's head teacher, who did not think that it was necessary for students to learn information literacy skills at their age, because they were not skills that students would need to use until they were in their later high school years. This statement is contrasted by Rowlands, et al (see Chapter 1, section 1.1), who believes that by the time students are old enough for independent research, bad habits are already ingrained. Based on the interviews with the members of senior management in all three schools, the overall impression was that there was a lack of knowledge about what information literacy skills are, and why they are important. This research study focused on students doing a research assignment, and based on the interviews with senior management, they all discussed information literacy as skills that are used only for research, rather than to strengthen critical thinking skills, problem solving, and literacy skills. One of the problems associated with information literacy is that the existing frameworks developed in England, e.g., SCONUL's Seven Pillars Model (2011) are written for university level, and the definitions of information literacy discussed in the literature review are at a higher level than primary school students' academic abilities. If there were a simplified definition of information literacy that addressed the specific information needs of primary school students, it might be more appealing to head teachers to incorporate those into the school's curriculum.

Expectations of the librarian's role varied in the schools that were observed. In School A, the librarian was purely administrative. The library was not perceived as an academic resource, so the librarian was

in place to maintain the space and catalogue stock. Even when the researcher was employed as the librarian, there was no expectation to choose stock, write policies or work with students; all of those duties were in the remit of the Literacy coordinator, who was the official manager of the library. In School C, the librarian was fully in charge of the library, from choosing stock, to writing library policies, to teaching information literacy skills to students.

5.4 School Library Staff

Of the three schools observed in this study, only one of the three had library staff who were qualified and whose only role was to manage the library. In School A, when the librarian post was terminated, the role was taken over by a teaching assistant who kept the library tidy when she had time during the week. She was not responsible for promotion of the library resources or stock management.

The CILIP Primary School Library Guidelines (2002) recommends that the library be staffed by a full time, professional librarian. Alternatively, they offer that the library can be staffed by a professional librarian shared by a group of schools, or a teacher who is line managed by the Head teacher. Only two schools in the study had someone to manage the library; the school without library provision had library resources managed by the head teacher, and used the services provided by Schools Library Services.

References to the role of the school librarian were detailed in the Literature Review by IFLA/UNESCO, the ALA, AASL and IASL (See Chapter 2, section 2.6, p. 32).

A 2011 study in Colorado (Lance & Hofschire 2011) found that states that gained librarians consistently demonstrated greater reading score increases over time than states that lost librarians. Additionally, their study found a correlation between reading scores and endorsed (qualified) librarians. Their analysis of advanced reading scores indicated that schools that either maintained or gained a librarian over time had more students who scored ‘advanced’ in reading and had improved their performance since 2005, than schools that either lost their librarians, or did not have one in either year (Lance & Hofschire 2011).

In School A, it was clear that although a library space was provided, there was no one to manage the stock, or guide students with what to read, and no encouragement of reading for information in the context of the topics they were studying. The Literacy Coordinator mentioned several times during the library refurbishment that the target of having an attractive library space and updated books was that every child in the school “have a love of reading.” This presents a problem: a “love of reading” is not a measurable outcome and it was not going to be assessed in any way by the school; learning objectives and measurable outcomes are discussed in further detail in Section 5.13.

School Library Association (SLA) (2006) recommends that a professional librarian be employed to manage the school library. This goes back to the perception of the librarian, which was discussed in the literature review (Chapter 2, section 2.11), as well as in the Findings chapter. The challenge is that because librarians are not teacher trained, they are not often regarded by teaching staff as having the same status. In addition, because librarians are not teacher trained, they do not ‘speak the same language’ as teaching staff; librarians are not trained in the theories of learning behaviour or how the National Curriculum measures learning. This causes a communication gap between teachers and librarians, because teachers believe that they are solely responsible for teaching the kinds of skills that require information literacy instruction. Professional librarians are versed in information literacy skills, but because they lack teaching credentials, they do not have the status to be able to teach those skills to students.

Lance (2003) found that two factors consistently increased student academic achievement: librarians who collaborated in the planning of lessons with teachers, and librarians who were directly involved in teaching information literacy concepts to students. In School A, the librarian did not collaborate with teaching staff to plan lessons or instruct information literacy sessions. In School C, the librarian was central to the teachers’ planning process; they went to her to gather resources for their topics, and she would instruct students not only on information literacy skills, but she was able to provide other skills based lessons for the students as well. At the end of every school year, the librarian went to every teacher in the school to determine what resources were needed for which topics. It meant that when school began in September, every topic covered for each grade level had book resources to underpin students’ learning.

Teachers were also present during the IL lessons that the librarian provided to each class, so every teacher was familiar with the librarian’s IL curriculum, and were able to follow up library lessons in the classroom. This led to a consistency of IL teaching in the school, so that all students were getting the same information, the same encouragement to use a variety of sources, and had consistent guidance when they were using internet sources. In addition, the lessons with the librarian influenced the teachers IL skills, so they were able to show students which kinds of websites would yield the best results. One of the teachers in the observed lessons also encouraged students to use the book resources, but also discussed the use of experts when doing a research project, giving the students more understanding of where reliable information can be found.

5.5 Stock Provision

Stock provision and management are key to creating a reading culture in school. When stock is chosen to underpin the curriculum, it embeds reading into every aspect of the students’ school life, which can then be transferred into promoting reading for pleasure. Additionally, having a dedicated school librarian means that stock can be regularly evaluated to determine the popularity of resources

being borrowed. A librarian who evaluates the stock becomes knowledgeable about his/her students reading choices so that he or she has the ability to make links from popular authors to similar authors that the students may enjoy.

Based on the observations of the students, the resources available to the students in school influenced their perception of how the library functions and also, how the students undertook research. In School C, the students observed had a variety of resources to choose from when they were undertaking their information search. The books that were provided were acquired specifically as a result of the librarian being aware of the topics covered. Each year, she met with each year group's teachers to obtain all the topics covered during the year, and she would order her book stock so that each topic had a range of non-fiction books that underpinned that topic. Although the librarian did not have a budget that could include databases for students to search, the school did subscribe to two online resources that also broadly supported the topics covered in the school that were based on the suggestions of the National Curriculum. This gave the students in School C three different options for their information searches, and since they had access to these options from the time they started doing library work in Reception (aged 4), the observed students in year 6 (aged 11) were knowledgeable about the different resources they could use to search for their information.

School A was provided with the option of searching the internet only. The teacher mentioned that the internet was a much faster way to obtain the information the students needed, and books may take too long if the information they need was not in the book, but if there have never been books to underpin the curriculum, then this perception is not surprising. Prior to 2012, the stock in the library was old and outdated, so teachers were not accustomed to using the library for academic purposes. In 2011 when the researcher volunteered to do some work in the library, one of the tasks initiated was to create bibliographies for each teacher relevant to each topic, so that they could use book resources in their classes to support the curriculum. However, the book stock had never been updated when the new creative curriculum began, and because there was no one to maintain the library stock, the library management catalogue was not up to date either; many books were missing from the system. Given the limitations of the library based on the stock provision, it is understandable that the classroom teacher felt that book sources would not be as easy as using the internet.

In addition, the head teacher's view was that it was far easier to get the information they needed from the internet, rather than spending money on books that may never get used. The focus in the library in School A was about reading for pleasure, so it was a perception that the only stock they needed to have available were reading books.

This is significant because there is a divide between reading for pleasure and reading for information, when both combined creates a reading culture described in Section 5.2. If the vision of a school is to create students who read, it is not enough to only incorporate reading for pleasure, while ignoring

reading for information. The perception is that students do not have to read books for information because the internet provides them with everything they need.

This goes back to the ‘three p’s’ of library that Geoff Dubber described in his interview. The three P’s are ‘Provision, Promotion and Practice’, and the two observed schools which had libraries can be discussed in relation to this idea. School A had the vision of providing a library space that was attractive and functional, so that students would be inclined to borrow and read the books. The refurbishment was excellent, and weeding out the old stock and replacing it with new stock did attract more students, and more books were borrowed. However, this is where the success of the library ended. When the researcher was employed as the librarian, the promotion of the library garnered little response. There were time slots assigned to each teacher so that full classes of students could attend a short lesson on the stock provided and how to use the library, but no teachers ever arrived with their classes during the times that were provided. There were classes that used the library weekly when the researcher was present, and book borrowing statistics went up significantly in the year that the researcher was employed from the borrowing the school year before as a result. Once the researcher was no longer employed, the only library promotion that occurred was a weekly library session after school that was voluntary for all students. The researcher did not formally observe these sessions, however, on the days that the researcher visited the school to gather follow up information from the Library Management System, there were no students using the library. The weekly session was scheduled so that students had an opportunity to return or borrow books, but there were no scheduled activities for the students to engage in to get excited about the library. In addition, the students were not encouraged to use nonfiction books for curricular purposes, but opening a library session in the afternoons to encourage and assist students to look more deeply into the topics they were covering may have resulted in wider reading by the students and an opportunity to instruct some information literacy skills with books as the main resources. With the belief that the library’s only purpose is for pleasure reading, School A is missing a valuable opportunity to use their attractive library space to encourage students to use the library as an academic resource. The staff in School A have essentially decided that non-fiction books have no real place in school, and the internet is the fastest, most desirable option, meaning that the students do not benefit from using a wide variety of resources to find information.

One of the hallmarks of a ‘good’ school library according to Ofsted (2006) is that the library is part of the school’s improvement/development plans. The library is recognised as being a support for literacy, and although staffing the library is not prioritised, the provision of a library space is mentioned in Ofsted as a positive feature, however, the fact that Ofsted did not regard it as necessary for a school to be highly ranked means that it is perceived as a ‘bonus’ or a luxury’. In a 2012 School Library Lobby of Parliament in London, one of the recommendations that was made on that day was that schools without library provision and a professional librarian should not be considered for

‘Outstanding’ status when they are audited. At present, that recommendation is still being made, but only at secondary level.

Where a library has no staffing, it is unlikely that the library is part of a school’s development plan. It may be that the provision of the library may be mentioned as a way to increase literacy in the school, however, this is a minimum to what the library can actually provide in terms of improvement for the school. In the case of School A, the only mention of the library in the school improvement plan was regarding the refurbishment and the promotion of reading for pleasure. The Literacy Co-ordinator who was in charge of the library was charged with setting targets to improve literacy, however, one of the actions to achieve this was to refurbish the library, but did not include any ideas on how the library could actually be used to improve literacy throughout the school. The Literacy Co-ordinator mentioned several times that the efforts to improve the library were so that every child in the school would develop a love of reading, however, the opening hours of the library were not extended, they did not see the value of staffing the library even on a part time basis, and teachers were not provided with any instruction or encouragement to bring their students in. Additionally, there were no plans for assessing whether or not the students had developed a love of reading, so it is not known if that target was met.

5.6 Student Confidence

The students’ confidence with locating information for their research projects was greatest in school C, where the students had been given regular information literacy instruction from the librarian since they first started school at aged 4. The students were able to move between using book sources and the internet, and could articulate that sometimes, a book was a better source of information. When they used the internet, they used sources that they had used before and had some instruction on how to use by their teachers or the librarian, so they knew that those sites were reliable. The significant finding with regards to their search confidence was the time they took to verify the sources they used. This was different from the other two schools observed, where students enjoyed using the internet, and it was their favoured choice for the search process, however, they were often unsure about the sites they were using, and they used sites that produced the first hit of information without evaluating whether or not the website was reliable. Additionally, a reason for the students’ confidence in School C may have been the guidance that they received when they were undertaking their research tasks; they were provided with sites to make their searches more efficient. This removed the evaluative stage of the search process, but one interesting response from the head-teacher in School A was that she did not think that students in primary school needed to do independent research. What the observations revealed, however, was that the students in School A did all their online searches with minimal input from their classroom teacher. The teacher talked briefly about key wording, however, the students independently used which ever search engines they knew best, and spent time evaluating whether or

not the information was suitable for their project, so their research was largely independent. Students in school C, in contrast, were provided with print materials on their topics, and also spent time discussing which subscribed online services they could use for their research. Their research was largely guided by the teacher, so their ability to use print and online sources was seamless, and the students did not have to spend time deciding whether a website was fit for purpose.

Students were not only confident in their abilities to locate the information they were looking for, they were also able to use the internet and books seamlessly during the research task. They knew the parts of a book well enough that they could use the index and the table of contents to find the specific information to fit their needs, and students in all three ability levels in School C used the books and the internet interchangeably.

School B did use some printed resources in the form of holiday brochures, but one of the challenges they faced was that most of the observed students had never seen or used a holiday brochure before this assignment, so they were more comfortable using the internet since it was a medium they understood. Although they also had some difficulty finding information on some of the holiday websites, they were more familiar with the act of bouncing from one website to the next to get what they needed.

School A students were not given the option to use book resources, so their comfort levels with using books alongside online sources were not observed. The students did exhibit confidence in searching for their information using the internet, but their searches may not have had the depth of information that they could have had if they had used a wider variety of sources. Additionally, one of the positive aspects of using books is that specific information can be found, rather than several thousand hits on one topic. This means that using a book can target information that may take longer to locate using search engines.

5.7 Information Literacy

Published articles often discuss information literacy and reading as separate entities, and based on the interviews with the staff in each school, information literacy skills are perceived as research skills only. Even the definitions of information literacy suggest that this type of literacy is heavily geared toward research. Changing the definition of information literacy, as well as linking those skills with reading achievement, will alter the definition so that senior leadership can understand what IL does for students in school, but also in a wider context. Particularly at primary school level, the definitions of IL that were presented in Chapter 2 section 2.12, do not match the cognitive skill level of every student, and therefore, those skills are perceived as things that do not need to be taught because they are too advanced for the students.

There is also a significant problem in that while the Primary National Curriculum (September 2013), does note that “in using non-fiction, pupils should know what information they need to look for before they begin and be clear about the task. They should also be shown how to use contents pages and indexes to locate information” (p. 37), this is stated in the Notes section as a non-statutory guideline, so there is no requirement for primary schools to teach it. Again, this leads to inconsistency in the instruction of these skills, because some teachers will deem at least some of the skills important to teach students, but others will not.

There is a clearly a divide between the importance that the government places on an information literate society and how school staff members view information literacy skills. While the government views information literacy as an important 21st century skills, they do not seem to find the importance in making sure it is included in the National Curriculum. Additionally, the government has concerns about the literacy levels in England, which could be remedied with more school library provision and the employment of qualified school librarians, however, the government maintains their position that schools need to make their own financial decisions about their staff and whether or not to invest in a school library.

If we consider the definition of information literacy from the different sources listed in Chapter 2 section 2.12, it is recognised that:

“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” (CILIP 2004).

This is a broad, generic definition; it does not define any of the criteria within the definition, so it could be easily seen as unnecessary for primary aged students. Another issue with information literacy in England is the lack of an information framework, particularly for primary level. Two information frameworks have been identified as examples of frameworks that could be adapted for use in UK primary schools, and will be discussed in the following section.

Another consideration from the school observations was that information literacy skills are too advanced for primary level students. In school A, there was a brief comment made by the head teacher that information literacy skills were more advanced than the students needed, particularly in Key Stage 1. However, what is interesting to note is that from Key Stage 1 (which starts at age 6), students will be required to understand algorithms, execute programs on digital devices, debug simple programs and use logical reasoning. These are complex skills for 6 year olds, who may not yet have reached the cognitive stage where they are able to employ logical reasoning. The objectives for this ‘new’ computing requirement in the National Curriculum is outlined below:

Key stage 1

Pupils should be taught to:

- Understand what algorithms are, how they are implemented as programs on digital devices, and that programs execute by following precise and unambiguous instructions;
- Create and debug simple programs;
- Use logical reasoning to predict the behaviour of simple programs;
- Use technology purposefully to create, organise, store, manipulate and retrieve digital content;
- Recognise common uses of information technology beyond school;
- Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.

Key stage 2

Pupils should be taught to:

- Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts;
- Use sequence, selection, and repetition in programs; work with variables and various forms of input and output;
- Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs;
- Understand computer networks, including the internet; how they can provide multiple services, such as the World Wide Web, and the opportunities they offer for communication and collaboration;
- Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content;
- Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information;
- Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact (Department for Education 2013).

These are compulsory objectives for the lowest stages of primary school, and although the researcher has not experienced these objectives, or observed students using this particular curriculum, the complexity of the objectives seem to contradict the idea that information literacy skills are too complicated for young students to understand. In addition, although these new Computing objectives will help students to understand digital technologies, however, it is exclusive only to working with sources based in the World Wide Web, and does not address the location or evaluation of information, skills which are also important, and relevant to all subject areas in the curriculum. The ability to use the computer is important for students at this age, but being able to understand code does not give them the automatic ability to search for needed information effectively, which is a skill they also need to become lifelong learners.

5.8 Information Literacy Instruction

Information literacy instruction was inconsistent in both School A and B, meaning that although students were taught basic fundamentals of parts of a book or simple search strategies, these were taught based on the teachers' knowledge, rather than on a set curriculum or framework for information literacy. Independent searching by the students was limited because of time, the observed students in all three schools were bound to search for the information they were assigned to search, and the teachers agreed that there was not enough time in the curriculum to allow the students free choice when they were searching for information. This may pose a problem with the students' motivation to seek information. In her study of the information seeking of older elementary students, Crow (2011) found that upper elementary students preferred to engage in information seeking that was personal and meaningful for them, rather than assigned to them. In addition, they preferred to do their information seeking as part of a group instead of individually. Alternatively, Gross (1999), the originator of the Imposed Query Model, found that children will voluntarily engage in and have a positive experience with an imposed query if they accept the question as their own and feel that their response to the research will be accepted.

Gross's (1999) study assumes that there is a librarian present who is guiding the students' research, regardless of whether or not the search is personal or assigned. This is the challenge in England, because there is no curriculum to address information seeking behaviour, and without a dedicated librarian to assist in library and research skills, the instruction of carrying out a search is inconsistent. In School C, where the librarian was involved with the direct instruction of research skills, the teachers were also present in those lessons. This meant that the teaching of research skills was consistent throughout the school, which was not the case in Schools A and B, where it was up to the teacher to instruct research skills. This kind of instruction is left up to the teacher, and their knowledge and experience with research skills will determine how they impart those skills to their students.

Streatfield et al, (2011), found that because primary schools cannot afford to employ a dedicated school librarian, which means that there is no systematic IL development in primary schools. Another factor that impacted information literacy instruction in primary schools was that several of the library staff reported that they were no longer allowed to get involved or had no opportunity to instruct information literacy at their school. This finding correlates with the librarian interview in School C, who was informed that the IL skills she was teaching in each grade level was repetitive, that teachers were already teaching those skills, and so her IL instruction was terminated. Additionally, the class teacher in School A was insulted when asked if she would find it helpful to have a librarian to teach the students IL skills to make it easier when they did internet searches. These responses indicate that there is tension between teachers and library professionals. Teacher perception that librarians are doing their jobs may be a threat to how they do things in the classroom may be a barrier to collaboration between teachers and librarians, creating further inconsistency to the teaching of information literacy skills; if teachers are not in favour of the librarian teaching the students about finding information or being advised on the kinds of resources to use for topics, even a dedicated librarian will not have the ability to guide students on library and information use, again, maintaining the perception that the librarian is a purely administrative post, not an academic one.

Without a curriculum or framework for information literacy at primary school level, information literacy instruction remains inconsistent in primary schools. Even among the three schools in this study, information literacy instruction was not only inconsistent, but the value of teaching those skills differed in each school; School A staff had the perception that teaching information literacy skills was not necessary for primary aged children, School B would have embraced a specialist to teach skills, but did not have physical space for a library or librarian. School C valued the information literacy curriculum written and taught by the librarian, and though it was still a valued part of the curriculum, teachers felt that they were already teaching information literacy skills, and no longer wanted the librarian involved.

The problem with the inconsistency is that the children only learn how to be information literate in the way that the teachers teaching them are information literate. If teachers are limited to one search engine, the first hit of a search, websites that have not been evaluated for quality, then the way that students learn to use the internet for information is limited as well. Additionally, if students are only using internet sources and not books, they learn that the best place to search for information is the internet, which may not be the case for every topic. None of the observed teachers instructed the students to cite the information they used for their final projects, which teaches those students that they are required to give credit to someone else's work. Teachers assume that students are able to find the information themselves because they are part of a generation who grew up with the internet, the problem is that they may be ineffective at searching, but they are not being taught any strategies to get better.

If teachers are not expecting students to evaluate their sources, manage their sources effectively, with note taking, for example, or to use citation techniques to give authors credit, then they are allowing students to maintain bad information seeking habits. This actually works against teachers in the long run, because by the time students are in secondary school, the habits they have been allowed to maintain are more difficult to break when they are expected to take on information based projects.

One of the responses that was heard in an interview was about how students in primary school do not really need information literacy skills at that age, because they are learning to read, and therefore, do not need to complicate things with learning how to do research. A new understanding is needed, however, because after careful consideration of the information literacy definitions discussed in chapter 2, p. 36 and section 5.7, the main problem associated with it is that the definition itself does not suit the age group. This is what makes it appear complicated when teachers and head teachers consider the skills involved; there is the thinking that it is only about doing research, and not about skills transference across curricular areas. The solution is to make this more accessible and understood by the members of the school, including the students. A new process may be needed, and it looks like this:

Stages of information literacy in primary school:

1. Think: I can think about what information I need to complete the assignment;
2. Ask: I can ask myself where the best place to find the information would be; a book, the internet or a person;
3. Plan: I can make notes using the information I find, and use those notes to share my thinking;
4. Write: I can put my information in my own words from my notes;
5. Cite: I can give credit for using someone else's work;
6. Present: I can present my information to the rest of the class.

This adapted definition is based on the interviews with both teachers and students; it was clear that information literacy was not viewed as a necessary skill that had to be taught, because it was perceived as being research based. Additionally, the Big6 model (see Chapter 2 section 2.15), was considered when developing these stages, because it is ideal that students should be able to apply these to any learning activity that requires problem solving or critical thinking. As the stages of information literacy suggest above, however, these are applicable to any assignment across any curriculum, not just research assignments. This is important: even if information literacy skills are taught as a stand-alone subject in a library, it is necessary for those skills lessons to be taught in such a way that students can use the skills in any subject, to tackle any problem solving task, or it will not be used or valued by teachers. In addition, any information literacy skills teaching must be done with national assessments in mind, or teachers will not approve of the 'wasted time' it takes.

Another challenge for schools to provide a consistent curriculum for teaching information literacy is to do with the assessment emphasis at primary as well as secondary levels. Information literacy skills are not tested in national assessments, and so therefore, teachers do not want to ‘waste’ time teaching those skills if they are not going to be part of the assessment. The next section will discuss the implications for a lack of teaching information literacy skills as early as possible.

5.9 Wider implications

A professionally qualified librarian has the knowledge and the skills base to teach students how to access information effectively. Teachers at primary level, however may perceive that because their students are not completing high level research projects, there is no need for them to learn from a specialist. Teachers may believe that they are able to teach the basics of information literacy because they are only undertaking small research projects, rather than completing research independently.

The impact of school libraries on standardised testing in England is not known, because the link between library provision and test scores has not been studied in England.

Although there is a gap in the research regarding the implications of library provision for school aged students, there is research that discusses information literacy in the world of work and in the world of higher education, which is relevant to this study because it supports the notion that information literacy is not just about carrying out research; there are a number of positions in the world of work that require employees to be able to locate the right information effectively and quickly. In addition, students need information literacy skills if they choose to undertake higher education or they risk failure because they cannot undertake research properly.

One notion that rose out of the interviews with teachers is that England’s school system is heavily assessment based, so part of the challenge for information literacy instruction is that it is not assessed directly, which means that it is not viewed as a subject that is necessary for students to know. Teachers are tied tightly to the curriculum, and while they find creative ways to teach while conforming to the curriculum, as in School A where the creative curriculum was used, teachers do not believe they have the time to teach materials on which the students will not be assessed.

Information of all types, from factual information that can help teenagers understand how the physical world works, to practical information that can help them understand health and survival issues, to philosophical information that can help teenagers ponder deeper questions and problems relating to the world and their role as future productive citizens can help make the maturation process easier for teenagers (Agosto & Hughes-Hassell 2006, p. 1394). Information literacy is not just about research skills, and they are necessary beyond primary education; if a strong foundation of information seeking is not built, students will not be as prepared for information tasks after primary school. The next sections discuss the implications of being information illiterate beyond primary school.

5.9.1 Secondary Education Information Literacy

In the interview with Geoff Dubber, he stated that information literacy instruction was important at the primary level because the expectations for students to be able to use the library and to find and evaluate information are higher once they reach secondary level. This is in contrast with the national curriculum, which again, does not address information literacy instruction expressly. Secondary schools are more likely to have some level of school library provision, for example, the secondary schools in the catchment areas for the observed primary schools had libraries; it was not known what level of services would be provided, but they had library spaces with resources.

In a 2007 study by Dorothy Williams on Secondary school teachers and their conceptions of student information literacy, the following quotes from the teachers in the study were notable:

“You cannot have an independent learner that does not have these skills.”

“I think we probably all agree that if we were teaching people these skills, it would produce people that were much more independent learners.”

“They (students) would not need to be spoon-fed as much in terms of how to get information and how to get good information.”

“To be able to go out into the wider world and select information and evaluate it, whether they think it’s worthwhile or not worthwhile and then process and handle it well” (Williams 2007, p.209).

The quotes above illustrate the importance that teachers place on having information literacy skills. The teachers also felt that “it would improve the quality of learning without any doubt”, however, they also agreed that there was little time with the pressure of the curriculum to teach these skills to students. Several of the respondents also felt unsure about how to teach information literacy skills when they were not confident in their own information literacy skills (p. 209).

5.9.2 Higher education information literacy

If information literacy skills are foundational, and they are not taught from the time that students begin school, then they are not given the tools to search for information effectively. For example, students in School A, who were reliant on Google to locate information may have an issue using book resources or online databases when they are expected to carry out research at university level. By the time they attend university, students are accustomed to ‘quick fix’ searches, where they choose the first Google hit they come across, rather than evaluating sources for suitability.

Fain (2011), discusses this in her study of first year university students who she says are faced with a multitude of choices, so for them it makes practical sense to go with the resources that are easiest and

quickest to use, regardless of their appropriateness as source material for college – level research. Fain goes on to say that “first year college students exhibit information searching skills that seem to rely on rankings provided by internet search engines rather than careful analysis of the results” (Fain 2011, p. 109). Whatever information literacy skills students may be lacking, academic librarians are responsible to fill in those gaps, when they could have knowledge of research skills well before they enter university. A study by Gross and Latham (2007) found that students entering higher education did not have the IL skills necessary to complete university level assignments, however, the problem was that the students themselves did not perceive that they had insufficient skills, so did not take advantage of opportunities for remediation. If students are well prepared to carry out IL based tasks, the need for academic librarians to provide remediation becomes less, and they can work with students on more advanced levels of research.

The tradition of information literacy instruction is short sighted: it neglects the broader reality that most university students face which is that the majority of university graduates will not continue careers in academia, but will pursue careers in the public, private, and non-profit sectors, all of which have differing information practices for locating and using information (Hoyer 2011, p 11). Information literacy instruction is valuable at university level, however, students need to have refined skills that can transfer across different work sectors, as well as real life situations in order for them to be considered truly information literate.

5.9.3 Information literacy beyond education

The 2011 Skills for Life survey was commissioned by the Department for Business, Innovations and Skills and designed to measure basic skills amongst people aged between 16 and 65 (inclusive) in England. The aim of this survey was to measure not only literacy and numeracy amongst adults of working age in England since 2003, but also provide evidence on the standard of ICT skills in the population.

Information literacy, which was previously represented under the ICT umbrella in the National Curriculum has been replaced with Computer Programming skills, which policy makers have said plays a more important role for students because:

“Computing ensures that pupils become digitally literate – able to use, and express themselves and develop their ideas through information and communication technology – at a level suitable for the future work place and as active participants in a digital world” (Department for Education, 2013).

These are important skills for students to know when they enter the world of work, however, teaching students only digital literacy does not address the issue that students need to also be able to find and use information with digital tools.

Louis Leung (2010) found that there is significant relationship between internet connectedness and information literacy, and a strong link between information literacy. What he discusses in his research is the idea that it is not enough to know how to use technology, internet users also need to be information literate in order to have any impact on life quality. His study found that people who were able to access information to socialise, interact, seek information and find entertainment are better able to “satisfy their social and psychological needs” than those who are not information literate. In addition, he found that Internet users who reported that they were more critical, tool, socially and culturally literate tended to enjoy a higher quality of life.

In a study of transferring information literacy practices by James Herring (2011), he investigated secondary school students in Scotland who were completing required work experience and the differences they found between the school and workplace information environments while on work experience. In pre-placement interviews with the students, they discussed that their main sources of information came from using search engines. It was also noticed that these students were mostly irregular or reluctant users of the school library, they preferred to use the web to conduct their information searches. The status and qualification of the school librarian was not included in this investigation, so there was no discussion of why these students would not ask the school librarian for help, or whether or not the librarian had any role in teaching information skills to the students.

One of the findings was that the students were aware that one of the differences between school and workplace was that when employees needed to use technology, they had more access to intranets and internal databases, which the students had not experienced at school. A second technology that the students commented on was how often employees used their mobile phones not only to access information, but also to speak to other employees to gain or give advice, or ask relevant questions based on the jobs they were completing.

A significant finding in Herring’s 2011 study was that the students were surprised at how much information employees received from other employees, rather than the internet, or even internal databases or intranets. “In the workplace, students found that the key source of information was often other people rather than a computer” (p. 10), and they expressed surprise that “people in the workplace used fellow employees or external contact as the main source of information to solve problems or to carry out workplace activities” (p. 10). Students also commented on the importance of information being immediate, compared with the school situation, where information could be gathered over time, but also that it is crucial that the information be right. One student stated that ‘information is more important, not because it’s a job, but because it’s dealing with people’s lives, so there are consequences to getting the wrong information.’”(p. 10).

What this study illustrates is the importance of having information skills that students are able to transfer into a working environment. Not only do they need the ability to locate the right information

quickly, they also need to be able to evaluate its suitability for purpose and be certain it is the right information. Additionally, students need to be able to use other sources of information outside of the internet, and be comfortable using those sources to find what they are looking for. During one of the class observations in School C, they were asked by their teacher how they could find the information they were looking for to complete their research on rivers. One student responded that besides books and the internet, they could interview a river expert to get the information they needed. They had been instructed by their librarian some of the alternative sources of information if they could not get what they want from the internet. Teaching students how to use multiple sources of information means they will be more likely to have the skills that will transfer from school into the workplace. The earlier they start learning sources of information, the higher the chances that they will be able to transfer their skills.

One of the wider problems that Herring found in his study was that teachers lacked the knowledge of workplace information literacy skills, so they were not able to teach the students what they needed to know in order to instruct students in a way that allowed the students to know what to expect when they reached their work experiences. During the school observations, it was also noted that teachers in School A encouraged the use of Google and internet search only. As reported in the Findings chapter, both the class teacher and the head teacher found it easier for the students to find all of their information on the internet, rather than using book sources, or human sources to find information.

Competitive advantage is another aspect of the importance for information literacy skills. Porter and Miller (1985) report that “information is one of the most important elements in competitive advantages”. They assert that “forward looking companies take the view that information is a strategic asset of the enterprise in much the same way as a company’s financial resources, capital equipment and real estate and properly employed information assets would create additional value with a measurable return on investment, and can be leveraged into strong competitiveness” (p. 721)

This competitive advantage is given to those who have had some experience with information literacy instruction, and it is particularly crucial to have these skills before leaving school; it has to be considered that not every student will choose a further or higher education path, so it cannot wait until students get to university. Information management should be introduced to students earlier, so they can develop refined use practices well before they leave full time education. This ensures a work force who is able to use and evaluate information needed in any work sector.

5.10 School Library Services Closures

One of the challenges that schools face is the reduction in services or closure of public libraries. As discussed in the Literature review in Chapter 2, Section 4.4.6, public libraries were used to support service primary school libraries, and they still play an important role with schools which have limited

library provision, or do not employ a librarian. This was true in School A, where the students in every grade level visited the library at least twice per year to get to know the service, as well as to get some instruction from a qualified librarian. Additionally, the library service officer encouraged primary school students to use the public library branch, and even invited them to suggest book stock to keep the resources current and interesting.

Schools want to decide whether or not they want to spend money on school library provision, using public libraries and school library services as 'back up' plans for schools who choose not to provide a library service. However, councils are continuing to reduce library budgets, making closure and reduction in service necessary in many authorities. The CILIP sponsored survey 'A changing landscape: A survey of public library authorities in England, Wales and Northern Ireland 2012-13' (CILIP 2012), showed that of libraries surveyed, there was a net reduction in total revenue expenditure of £39 million; almost 1000 posts removed in one year and library hours per week reduced by 3000 in one year (p. 3).

School library services are meant to provide a kind of link between schools and the public library system. They are a semi-independent agency, but they are provided as "part of the public library service", but also provided as "part of an education department or local education authority" (Tilke 1997, p.12) SLS is a solution to the public library having to provide a service to schools who do not provide a library service within the school.

The problem with the reliance of schools on SLS is that their value is diminishing now that school budgets are decreasing, so fewer schools are subscribing. In the interview with the head teacher in School A, she clearly stated that she would not be happy to borrow books from the SLS when they could spend the same amount of money to purchase books that the school would own. The other issue was that because there was no one who managed the school library regularly, the books borrowed from Schools Library Services were more likely to get borrowed and not returned, which would incur further charges that they did not have to worry about if they owned the books. It was suggested that they borrow a wide range of fiction from SLS to 'test' which titles would be popular with the students so that they could make more informed choices about the stock they were purchasing. Then, when the books they borrowed from SLS got too old or did not look attractive, they had the ability to switch them every term to keep the collection fresh. Finally, School A was informed that they did not have to pay any charges beyond a 5% loss; they could lose 5% of SLS borrowed books before they had to pay, whereas lost books from their collection had to be purchased again at full price. Even with this argument, the head teacher was against using the SLS to borrow books. Additionally, when asked about using the SLS to borrow topic boxes in order to support the curriculum, the head teacher was also resistant to use that service. She stated that the service was tried years before, and the teachers did not know how to use the boxes, so it was a waste of money. She did not realise that currently the

SLS makes training fully available to all teachers so that they can make the best use of any resources the SLS provides. Again, given this information, the head teacher was unwilling to further her subscription to the SLS to incorporate any of the services into her school.

School B stretched their budget to subscribe to their local SLS. The teachers and the head teacher discussed how much value they placed in the topic boxes, especially because they did not have physical space in the school to house books that would underpin all the topics in the curriculum. An SLS closure in their area would deprive those students of valuable resources, and the teachers of teaching tools that they would not have the space to keep on hand.

School C did not use their local SLS, however, with a full time librarian in place and her knowledge and ability to manage a relevant and age appropriate collection, and a higher than average budget to purchase stock when necessary, it could be understood why they would not use the services of the SLS. In a school where there is no librarian present, where they are relying on a few students to talk about the books they would like in the collection, and no library expert to advise them, why would they actively choose to ignore an organisation which could offer so much to their literacy program?

If subscriptions to SLS continues to decline, more of them will see closures in the future. With the emphasis of computer programming in the Primary curriculum away from information literacy instruction, SLS will lose that much more of their service provision and will therefore be perceived as even less valuable.

5.11 Examples of ‘good practice’

One of the challenges faced by school libraries, particularly in primary schools is the lack of standards to follow that support the national curriculum. Primary schools are given ‘guidelines’ to follow, because schools cannot be required to provide libraries, having a set curriculum is also not required. The issue with guidelines is that they are merely advice; generic suggestions of qualities that would make a ‘good’ school library. Guidelines do not suggest that the school library is part of the overall curriculum of the school.

Based on the findings of the observations from the three schools, this section will address the characteristics of effective library provision.

The following positive elements of an effective primary school library service were determined from each of the three schools, and illustrate what made their library successful. The most successful library was School C, where all of the criteria on this list were met, Schools A and B met some of the attributes. Additionally, the criteria on this list represent a change from Ofsted’s “Good School Library Guide”, which is generic in scope and does not emphasise the librarian’s role, or offer suggestions about how the school library can support the overall development of the school.

Based on the observations, successful school libraries have:

- A strategic plan for the library should outline the expected student outcomes and how they will be measured;
- A written selection policy, and it should underpin the curriculum and change with the needs of the school;
- Regular access to the library service throughout the day for all students, both as part of the class, as well as independently (break and lunch times);
- A librarian who should determine which school improvement targets can be accomplished within the library service;
- A librarian who is evaluated based on the job description of a librarian, with a different evaluation tool than the one given for teachers;
- A librarian who sets measurable reading attainment targets in collaboration with classroom teachers;
- A librarian who regularly collaborates with the SLT to determine how to raise student achievement;
- A librarian who offers information literacy instruction to both students and teachers that crosses subject areas;
- A librarian who retains evidence of his or her value to the academic of the school across curriculums.

These strategies have been deemed effective by CILIP (2002) in the Primary School Library Guidelines handbook, and also in Ofsted's (2006) Good School Libraries report.

5.12 The impact of school library provision on information literacy

In conclusion, the comparison of the three schools provides an implication that a school which has a physical library space, a professional librarian in post, a school wide reading culture and the instruction of information literacy skills from Key Stage 1, does improve children's information literacy skills in upper primary school. Based on the students observed in the study, it was evident that those students in School C were more confident using a variety of sources, worked more efficiently at research tasks, and could transfer their information literacy skills across subject areas. The students were also encouraged to read for pleasure as well for information, creating a school reading culture that was not present in Schools A and B. The school librarian in School C was an integral part of the school community, was influential in school development, and was evaluated by senior management in a way that was appropriate for her role.

5.13 Learning objectives for information literacy instruction

Pedagogical theory, as discussed in Chapter 2, section 2.18, was considered in the creation of learning objectives for primary information literacy instruction. Information literacy objectives cannot exist outside of an educational context if the end result is for schools to adapt and use these objectives. Additionally, the expectation that primary schools will likely not have consistent library management means that teachers will be responsible to provide students with information literacy instruction, so it is important to present objectives in a language that teachers will understand. Bloom's taxonomy is the most influential framework for the following sections because it is a "framework for classifying statements of what is expected or intended for students to learn as a result of instruction" (Krathwohl 2002, p. 213). This is language that teachers currently use to develop lesson plans, and can be easily adapted into an information literacy skills curriculum.

Bloom's vision for his taxonomy was to serve as a:

- Common language about learning goals to facilitate communication across persons, subject matter and grade levels;
- Basis for determining for a particular course or curriculum the specific meaning of broad educational goals;
- Means for determining the congruence of educational objectives, activities and assessments in a unit, course or curriculum; and
- Panorama of the range of educational possibilities against which the limited breadth and depth of any particular educational course or curriculum could be contrasted (Krathwohl 2002, p.212).

In the original taxonomy, the six major categories were Knowledge, Comprehension, Application, Analysis, Synthesis, and Evaluation. The taxonomy was then revised, in 2002, and while still true to the same vision held by Bloom, the revision allowed the strict hierarchy to be relaxed, so that some of the categories were able to overlap, which was done with teacher usage in mind. This revised version of the taxonomy was used to create an information literacy taxonomy in figure 6.

Definitions of each of the categories is as follows:

- Remembering: retrieving knowledge from long term memory;
- Understanding: determining the meaning of instructional messages, including oral, written and graphic communication;
- Applying: Carrying out or using a procedure in a given situation;
- Analyzing: breaking material into parts and detecting how the parts relate to each other;
- Evaluating: making judgments based on criteria and standards;

- Creating: putting elements together to form a coherent whole, or make an original product. (Krathwohl 2002, p. 215)

In the researcher's educational experience, Bloom's work was important from a pedagogical standpoint because it was the framework for which learning objectives were written to meet the goals of the curriculum in the States, and although it was used in the USA, the principles that Bloom's taxonomy supports could be adapted across to the UK. (Ohio University, 2010). The purpose of learning objectives are as follows:

- By knowing where you intend to go, you increase the chances of you and the learner ending up there;
- Learning objectives guide the teacher relative to the planning of instruction, delivery of instruction and evaluation of student achievement;
- Objectives guide the learner, helps him/her focus and set priorities;
- Objectives allow for analysis in terms of the level of teaching and learning (www.oucom.ohiou.edu/fd/writingobjectives.pdf).

In order for learning objectives to meet desired outcomes of the learners, they must be:

- Consistent with the goals of the curriculum;
- Clearly stated;
- Clearly observable or measurable;
- Realistic; and
- Appropriate for the level of the learner (www.oucom.ohiou.edu/fd/writingobjectives.pdf).

In any lesson, teachers set learning objectives, learning activities follow the objectives, and an evaluation or assessment takes place to determine whether or not the objectives have been met.

The following model will illustrate practical information literacy objectives and learning activities that could be practiced with students. There was the intention to match these with key objectives of the Primary National Curriculum (2014), however, the objectives are written to illustrate a cognitive hierarchy of skills; National Curriculum targets are written very broadly without using evaluative language. This model is written based on the pedagogical theories of Bloom and learning objective theory because there is no statutory requirement for any IL skills represented in the Primary National Curriculum, and it was important to ground the IL objectives in educational theory to increase the chance that they be adopted and taught at primary level. In addition, there is a low likelihood that there will be a school librarian present to instruct students in IL skills, so any model for IL needs to be presented in pedagogical language that teachers can understand so they can understand and implement the IL objectives into the classroom.

It is also noted that the terms of the objectives have to be simple enough for young students, so the objectives are paired with the new information literacy definition discussed in Section 5.8.

.Along with the knowledge of educational theory and based on the observations and the interviews, it has been determined that students should meet the following learning objectives by the time they leave primary school in order to have a strong foundation in IL before they transition into high school. Note that this model provides a sample of possible learning objectives that could be adapted across subject areas, and is dependent on the objectives being taught according to the Primary National Curriculum

Categories	Learning objectives: Students will be able to:
Think (Task Definition)	<ul style="list-style-type: none"> • Explain the problem to be solved or the assignment; • Determine the best resources (print materials, experts, or online) to solve the problem or complete the assignment.
Find (Locate)	<ul style="list-style-type: none"> • Decide which information fits the assignment; • Use books and websites provided to look for information ; • Find books using the Dewey Decimal system; • Use the parts of a book to find information.
Plan (Evaluate)	<ul style="list-style-type: none"> • Determine a criteria for effective websites; • Decide the most effective keywords; • Describe how books can be more reliable than websites; • Determine when expert knowledge may be the best source of information.
Write (Apply)	<ul style="list-style-type: none"> • Write information into papers using paraphrasing; • Create notes from large pieces of information; • Use communication technology to interview experts.
Cite (Acknowledge)	<ul style="list-style-type: none"> • Use a standard citation system to credit source creators; • Write a bibliography of sources.
Present	<ul style="list-style-type: none"> • Complete a project with sources included; • Communicate new ideas on a topic using a variety of media (blogs, power point, essays, research papers); • Communicate information in your own words without copying and pasting.

Table 6 Learning objectives for primary information literacy

These learning objectives are in lieu of a new framework for primary information literacy, because IL strategies are not written into the National Curriculum, and therefore not assessed in England. The benefit of these objectives is that they can be part of any information seeking assignment in any subject area, and the objectives are not limited to the ones listed above. The categories can serve as simple guidelines that can be used to assist students in finding and using information in any scenario. They are written as educational objectives so that teachers can not only use them in any lesson, but they are also measurable, so teachers can evaluate the progress of students in information or problem solving assignments. In addition, the categories are simple enough so that even young students can

access them, and proceed through each category knowing what they need to accomplish when they are seeking information for a task.

5.14 Summary

This chapter discussed the findings from Chapter 4, and presented the facets that lead to strong information literacy skills in year 6 students. It discussed the role of the school library in the development of information literacy, and also highlighted pedagogical theory and the importance of learning objectives in the teaching of information literacy. A learning objectives model was provided for teachers to be able to use across subject areas to help students to learn information seeking skills in a simplified way that is accessible even to very young students.

The next chapter will reflect on the conclusions drawn from the findings, and provide recommendations for school libraries, as well as recommendations for further research.

Chapter 6 Conclusion

6.1 Introduction

The aim of this research was to determine the contribution of the primary school library to the development of students' information literacy. This aim was met by achieving the objectives set out in the Introduction. The reflections from the findings will discuss the conclusions drawn from each of the school observations and interviews. The contribution to knowledge that this study makes will be explained as well as the challenges and limitations the researcher found while carrying out this study will be briefly described.

In addition, there are still several gaps in the areas of primary school libraries and information literacy instruction, so recommendations will be made for possible areas of future research.

6.2 Aim and objective outcomes

This sections details the extent to which the aim and objectives set out in Chapter 1, section 1.4 were achieved.

The aim of the research was to investigate the contribution primary school library provision in England makes to the development of year 6 (age 10-11) students' information literacy skills. This aim was achieved through the use of ethnographic case studies to directly observe students completing a research assignment during several class sessions. In addition, semi- structured interviews with head teachers and teachers provided information about the perception of school libraries and the role of the school librarian.

6.2.1 Objective 1: How was information literacy implemented?

The first objective was to explore how information literacy instruction was implemented in each of the schools selected in the study. Semi structured interviews with head teachers in each school gave the researcher an overview of how each school perceived the importance of information literacy instruction, and how that instruction factored into the schools' overall curricula and school ethos.

Interviews with teachers revealed how they taught information literacy skills when students were conducting a research assignment.

6.2.2 Objective 2: The contribution of a school librarian

The findings from School C determined that in that particular school, the presence of a qualified primary school librarian, made a significant contribution to students' information literacy skills, which addresses objective two. Her role in creating and implementing a whole school information literacy curriculum meant that all students in each grade level had instruction of all facets of information literacy from the time they entered school. The observed year 6 students were able to

apply the instruction they were given to complete a research task so that they could effectively locate information from both print and digital sources, evaluate the best information from those sources, and use the information in their research presentations.

6.2.3 Objective 3: Observation of students

Objective three set out to observe students applying information literacy skills while they worked on a research task assigned by their teachers. Students from three schools were observed, and their activities during the class sessions were recorded in writing as they worked. The researcher also talked to the students, asking questions about the sources they used, and how those sources were helpful during the assignment. The use of qualitative, ethnographic case studies assisted in the achievement of this aim, because it prepared the researcher to assimilate into each class smoothly, and to build rapport quickly, without being intrusive.

6.2.4 Objective 4: Literature review

Published literature was explored to determine whether or not other school library studies found positive influences from the provision of school libraries. Studies carried out in the US indicated that the school library had a positive impact on student achievement (see Chapter 2, section 2.7.1). The review of published school library studies achieved objective four.

6.2.5 Objective 5: Visual model

Objective five was to develop a model visualising key relationships between school library provision and information literacy skills development. The relationships needed to be in a clear, illustrated format to be easily accessible to the reader. The model is located in Chapter 5, Section 5.1, Table 2). The model was created upon the experience of reading culture in School C, and it was important to illustrate the link between reading culture and information literacy. It supports the idea that reading for pleasure and reading for information are not mutually exclusive, and work together to improve both reading literacy and information literacy.

6.2.6 Objective 6: Framework of learning objectives

The framework development in objective six went through many changes before it became focused on learning objectives. Initially, it was going to be an information literacy curriculum geared for a librarian to teach in a primary school. However, based on the exploration of published literature, and the expert interviews, particularly with Geoff Dubber, it was important to consider that primary schools do not often have school libraries, and even if they do, it is not likely that the school would employ dedicated staff to manage it. Although it would be ideal to have a librarian employed in every primary school, it is more practical to consider that teachers will be responsible for teaching

information literacy skills, and this framework was written in language that teachers would understand. Learning objectives are part of teachers' daily practice, so providing a framework of learning objectives, underpinned by pedagogical theory was preferable to writing a library based curriculum.

6.2.7 Objective 7: Make recommendations

Objective 7 set out initially to inform government and school staff of ways to implement a school library, and of the benefit of a school librarian. The government's stance, however, changed this objective; the government is clear in their desire to allow schools to make decisions about whether or not they provide primary school libraries. Therefore, the recommendations are addressed to head teachers and class teachers, because they bear the responsibility for using funds for school library services. These recommendations are based on the best information literacy instruction practices observed in each of the schools in the study. Recommendations can be found in Section 6.4.

6.3 Contributions to knowledge

This study addressed a deficiency in the research of the school library's role in developing information literacy skills in primary school students. The following sections detail the original contributions made to the knowledge in this area.

6.3.1 Theoretical contributions

The findings from this study are unique because no other published research in the UK has observed students who have been taught information literacy skills through their primary school years. Heider and Heider (2009), express the importance of early information literacy instruction, however, they did not use observation of students to illustrate their theories. It was observed in this research that year 6 students in School C, who had been taught information seeking strategies from early primary school up to year 6, were more directed in their searches, used both books and online sources for their information, checked to make sure sources were valid, and were able to break their found information into manageable notes. The support of a qualified librarian, and a written information literacy curriculum were also contributors to the students' abilities to locate and evaluate credible resources. These elements were not found in Schools A or B. Research from the USA (Lance 1999, 2003) provide evidence that a school librarian positively impacts student achievement, which supports this study's findings that a school librarian contributes to the information literacy skills of students. The USA studies provide their evidence with school test data, but they did not directly observe students interacting with reading or research materials.

Finding the presence of a whole school reading culture was a unique finding on its own. The National Literacy Trust, mentioned in Chapter 5, section 5.2, has developed a plan for creating reading culture, however, no follow up studies have been completed to report the impact of the implementation of that plan. It was observed in School C, that a whole school reading culture positively impacts information literacy skills, because it combines reading for pleasure with reading for information, which benefits students in both literacy and information seeking skills. The results of this study are an original contribution to knowledge because there was no published literature from the UK about the contribution of whole school reading culture to information literacy.

6.3.2 Methodological contributions

This study is the first of its kind in England. It proposed a qualitative approach, and case studies were developed for each school. As illustrated in the Literature Review, studies conducted in the USA, (Lance 1993, 2000) and in the UK (Streatfield et al, 2010), conducted their research primarily through the use of surveys and school test data. None of the studies used the direct observation of students to

determine the library's influence on information literacy skills. Therefore, direct observation of students contributes an original research design to the body of work investigating the school library's role in information literacy development. Direct observation of students allowed the researcher to witness the application of information literacy skills by students during a 'real life' situation, in a normal classroom setting doing an activity they would be doing whether or not the researcher was present. This ethnographic study allowed the researcher to look beyond quantitative school data to investigate the problems and best practices of schools and their information literacy instruction.

The analysis and reflection on the research approach was used to demonstrate how this design can be replicated. Much like Lance's studies in the USA, the contribution of this research design means it can be applied to any school in England to address any aspect of the school library's role in student learning, such as test performance, or literacy rates. It is also not exclusive to primary level, but could be applied in any age bracket.

6.3.3 Practical contributions

The observations revealed that there is a link between a whole school reading culture that positively impacts information literacy skills in year 6 students. This discovery can be used by head teachers and teachers to help them to promote positive reading initiatives within their schools. Reading for information as well as for pleasure has the ability to support better information literacy as well as general literacy in students. While it was noted that this finding was observed in School C, which employed a qualified librarian, there are strategies that teachers can use to develop whole school reading culture in the absence of a school librarian.

Currently, the National Literacy Trust offers a two year plan on how to create a whole school reading culture, however, this plan does not include reading for information or the guidance of a librarian, which has been recommended by the researcher as a result of this study. This study illustrates, in Chapter 5, Figure 2, the importance of these elements to reading culture in primary school. Additionally, as was observed in School C, a reading culture that included reading for information contributed to the information literacy skills of the year 6 students.

Geoff Dubber stated in his interview that librarians and teachers do not often "speak the same language" in the area of library skills. He furthers this comment by discussing the lack of knowledge that librarians have about the role of the library in supporting the National Curriculum, and how often librarians are not engaging with the National Curriculum when managing their libraries. This has led to a disconnect between goals that the librarian sets and what the teachers are expected to cover in the National Curriculum. A framework information literacy learning objectives, created as a result of the observations and interviews in each school addresses this disconnect, and draws together the goals of

both librarians and teachers by providing a common language, with activities that can be supported in the library as well as the classroom.

The framework of learning objectives for information literacy instruction is an original contribution because it is directed at primary school level, and considers that the school may not have the resources to employ a dedicated librarian. The framework can be easily adapted across any subject, and gives teachers a guide to help them plan activities that they can embed into any topics taught during the school term. In addition, the framework employs educational objectives that would be clear to both school librarians and classroom teachers.

6.4 Recommendations based on the findings

The following recommendations are based on practices observed during the sessions in each school. They include both recommendations for school library provision and for developing student information literacy skills. They were determined to be significant because when these things were practiced in the schools studied, students exhibited stronger research skills than when those practices were not present. These recommendations are divided into categories that identify the stakeholders who should take responsibility for action. Stakeholders are identified as: Senior management, including head teachers and governors; the school community, including teachers; school librarians; and professional (eg., CILIP, SLA), and policy organisations (eg., Department for Education). The following table illustrates each recommendation, and which of the stakeholders is responsible, because there may be more than one stakeholder per recommendation. The sections below then discuss the recommendations and how stakeholders can take action to implement them.

Recommendation	Responsible to
Recommendation 1: Employment of a dedicated librarian	Senior management, Professional and Policy, School Librarians
Recommendation 2: Stock should underpin the curriculum	School Librarian, Senior Management
Recommendation 3: Library space that is open for students during school hours	School Community, school librarian
Recommendation 4: Consistent information literacy instruction	Senior Management, School Community, School Librarian, Professional and Policy
Recommendation 5: Guided research	School Community, School Librarian
Recommendation 6: Collaboration of librarians and teachers	School Community, School Librarian
Recommendation 7: Use of Schools Library Service	Professional and Policy, Senior Management, School Community
Recommendation 8: Training of teachers to implement information literacy instruction	Professional and Policy, Senior Management, School Librarian
Recommendation 9: Develop a whole school reading culture	Senior Management, School Librarian, School Community

Table 7 Recommendations and responsible stakeholders

Each school did have at least one of the elements in the following sections, however, it was School C that had most of the following, and those students were the most efficient of the three at carrying out research.

6.4.1 Recommendation 1: Employment of a dedicated librarian

Senior management have the responsibility to determine whether or not they want to spend their funds on providing library services, including the employment of a dedicated librarian. It is recommended by CILIP that primary schools employ a member of staff whose full remit is to manage the library service, because “time and support is required for management and strategic development. This needs to be done by the library co-ordination or librarian” (CILIP 2002, p. 5). A qualified librarian would be the best choice, so that the person employed would have specialist knowledge of best practices in literacy and information literacy. A specialist librarian would not only be able to complete the administrative tasks that the library required, the person would also have knowledge of children’s literature to draw from when selecting stock. A librarian would also have the knowledge and ability to write a school library policy that would underpin the mission and values of the school, and use the library as a teaching tool to assist with preparation for assessments. The observations in School C confirmed that a school librarian benefits a primary school in several ways. The librarian was able to use her knowledge of children’s literature to provide fiction materials that would interest and engage students across all year groups. She was also knowledgeable about her collection, so that she was able to guide students to find books that would best suit their reading levels and interests. She engaged the students in interesting reading activities to maintain their enthusiasm for reading, and used these competitions to push them into reading materials they may not have previously considered. The

librarian in School C collaborated with teaching staff to ensure that nonfiction materials were related to the curriculum being taught; each topic covered had a range of reading materials to either support learning, or allow students to extend their knowledge on a subject. The librarian instructed students on using the resources to find information from the time they entered primary school at Reception (age 4), and continued all the way through year 6 (age 11) so that students were able to use both book and internet resources to locate information and have knowledge about which sources were better for their purposes.

The librarian in School C was also responsible to action some of the literacy goals that were outlined in the School Improvement Plan for the school. She worked with the Literacy Co-Ordinator to develop objectives for the students to increase their reading, both for pleasure and information. This meant that the library was key in the literacy goals that met with the testing standards for the school, so the school library was perceived as playing a role in supporting the students for their SATS exams in year 6. Regular meetings with senior management, as well as line management by a member of senior management assured that the librarian was a key support in the academic achievement of the students of the school. This is important, because the librarian could collect evidence to show what she was doing to help the students perform better on these tests, therefore proving her value within the school.

School librarians also have a tremendous opportunity to update their libraries to make them more appealing to students living in the digital age, and a professionally qualified librarian will be up to date on how to transform their libraries to include a wide variety of sources from a variety of media: print, tablet, smartphone and computer. More librarians need to be involved with head teacher and teacher events, conferences and organisations, in order to start educating members of school staff on the contributions that school librarians can make at primary level. It is also imperative that school librarians use evidence based practice to illustrate how they contribute to the overall school mission. Evidence based practice is a collection of work carried out by the librarian that can be shared with senior management. England's school system is heavily assessment based, so if a librarian cannot prove to senior management that the work he or she is doing contributes positively to the test scores of the school, there is likely to be little value in the position. School librarians also need to work with teachers to show them how information literacy instruction, appropriate stock provision and reading for information and pleasure actually benefits teachers in the classroom, and assists them with good test results for their students.

There is currently no standard qualification to become a school librarian in England, which should be reconsidered by policy makers to create a standard so that library provision is consistent in every school. Teachers and teaching assistants are expected to have pedagogical knowledge, and be well-versed in the National Curriculum, and every member of staff who is responsible for working with

children in the school should be educationally qualified in order to maintain consistency across the school, and every member of staff should also be contributing to the targets and goals of the school. Perhaps if school librarians held degrees in both teacher education and librarianship, the perception that the school librarian position is purely administrative would change.

6.4.2 Recommendation 2: Stock should underpin the curriculum

Stock that directly supports the topics being taught in the school provides the students with opportunities to read for pleasure and to find information. If students are reading for informational purposes, as well as reading for pleasure, more of their school day is spent reading in different contexts, so there is less need for reading to be scheduled or assigned, which may lessen the enjoyment of reading for students. In addition, reading for information “is a skill that needs to be taught and learned” (CILIP 2002, p. 13). Students need access to both print and online strategies so that they can learn the strategies necessary to read for information.

Relevant, age appropriate stock, which can include non-fiction books, magazines and newspapers, also allows students opportunities to extend their knowledge independently on a topic they are discussing in class. It also means that students are engaged with what they are learning in their normal classroom.

The librarian in School C worked together with the teaching staff to ensure that the stock was appropriate and relevant to the curriculum. The librarian met with every member of teaching staff when her budget was assigned so that teachers could assist the librarian in keeping the nonfiction books updated and refreshed for the next school years’ topics. This meant that the students had resources to support each of the topics taught, but could also use the resources to independently extend their knowledge beyond what was taught in the classroom.

School B used their local SLS to borrow stock to enrich students’ learning experiences. The topic boxes included books and teaching information on the specific topics being taught, plus some physical artefacts so that students had some visual representations for the topics they were discussing. Although School B relied on SLS for the majority of their topic based books, teachers were encouraged to have stock in their classrooms, both fiction and nonfiction, support student reading. While there was no dedicated budget for each teacher to buy books, both the head teacher and the classroom teacher said that money for book requests were honoured so that even small classroom collections could stay up to date and engaging for the students.

School A did not have a collection that supported the curriculum, however, they did have some books on some of the topics covered in each class. In addition, as discussed in the Findings chapter, the local

public library did allow teachers to check out as many books as they wanted on a particular topic, so that book resources could be used to support the topics covered in the classroom.

Senior Management determine the budget for the library, and in the absence of a librarian, they oversee the purchase of stock to make sure that it is suitable and age appropriate. It is recommended that they allow the librarian to maintain stock that underpins the curriculum, or in the absence of a librarian, they purchase or hire appropriate stock.

Another important case for providing student access to print materials is that although students seem to be internet savvy because they are digital natives and grew up with the internet, they still need to know how to use books to access information. The employment of a school librarian would ensure that they are instructed how to access online information effectively. If they only rely on internet sources, they are lacking 'out of the box' thinking so they will settle for a source that seems 'just okay' instead of trying to locate the source that is best suited for purpose. Print materials are also valuable because they must go through several levels of review and quality control before they appear in the library. Journal and magazine articles are edited for accuracy and may be peer reviewed prior to publication.

There is so much information available on the net, Thomas Mann (2001) opines that "if the only solution we are proposing to students is to sift through and evaluate net sources, then our solution has conveyed a tacit permission that is to acceptable to confine their searches entirely within the internet, as long as they think about what they are doing". We are therefore teaching students to ignore real libraries that hold stores of books that contains information that has already been evaluated, reviewed and selected.

Additionally, just because students are comfortable using computers does not mean they are comfortable reading and absorbing long narrative or expository notes in screen display format. According to Walter Crawford (1998) in "*Paper persists: Why physical collections still matter*", "many futurists now admit that people will print out anything longer than 500 words or so. It is just too hard to read from a computer, and it does not seem likely to get a lot easier" (p. 47).

Andrew Shenton addresses this issue in his interview, saying that:

"By no means can all the information we can find in books be found on the Web. Books still have their uses in areas, various kinds of reference books that give you information that you'll never find on the web. Journal articles, too. Also, the idea that everything electronic must be more up to date than books is a myth. Because you find some very dated, outdated information on the web. Books have an authority that electronic sources do not always have. There is a lot of material on the web that is not sound, for various reasons. There is no quality control in websites."

Students in primary school should be learning how to use a variety of media sources, not just the internet, so that they learn different search strategies, but also so they are able to evaluate the best source to address their information need. Teachers can support this learning by providing a wider variety of sources, and insisting that students use both print and online sources to complete research tasks.

Senior management should use part of their budgets to ensure that books throughout the school are directly in line with the school's curriculum. Teachers would then have access to both print and digital materials, and would be teaching students how to find information from a variety of sources without having to spend precious class time to do it separately. Additionally, using books to find information supports literacy; reading for information and reading for pleasure is not mutually exclusive.

As shown in School C, a school librarian works closely with teachers to select and maintain appropriate stock. Print resources should be directly related to those topics covered in the curriculum, and should also be differentiated to include stock that lower ability readers can access, as well as for students who need further challenges. This ensures that teachers have access to reliable sources for information that they can encourage students to use when looking for information on certain topics. Librarians should create and maintain bibliographies for teachers so they have collection information available to them any time.

6.4.3 Recommendation 3: Library space that is open for students during school hours

An employed school librarian has the responsibility for keeping the library open during school hours so that students have access to resources throughout the school day. Teachers have the responsibility to make sure the students are allowed to access the library during class times, when necessary, as well as during free time outside of class. If no librarian is employed, there should be a member of the school community who is able to open the library for as many hours as possible. Having an appealing space dedicated to the library and opening hours throughout the school day will create a reading culture in the school. School C was able to foster a reading culture throughout the whole school because the library space was open to students all day, and there was a librarian present to guide the students. All the students in the school used the library regularly with their classes, and as a result, the students were encouraged to use the library during their break and lunch times as well. The number of book issues per year averaged around 10,000 books, and although it cannot be guaranteed that the students were reading the books they were issued, the number showed that the students were using the library space and checking out books.

Although School B did not have a dedicated library, there was a shelf of books located in a busy corridor where the children were welcome to borrow books at any time. In addition, each classroom in

the school had a small library that the students could also borrow from, and each teacher was allowed to buy new books as and when they requested.

School A had a refurbished library that was engaging and attractive to the students, and during the opening times, students were enthusiastic users, however, without the presence of a school librarian, the library was only open for 20 minutes per day. Teachers were inconsistent about taking their classes to the school library to check out books, so students did not always have enough time to check out a new book.

6.4.4 Recommendation 4: Consistent information literacy instruction

Without employing a school librarian, it is senior management and the school community who must make decisions about teaching information literacy in schools. In schools that employ a professional librarian, he or she should be managing the development of appropriate information literacy instruction. Since primary school libraries are not statutory in England, it is up to head teachers to make the decision to incorporate information literacy instruction as part of the curriculum.

According to CILIP's *Primary School Library Guidelines* (2002), information literacy is key to lifelong learning skills, and should be reinforced in the classroom and the library as the curriculum requires (p. 13). CILIP does make recommendations on the teaching of Information Literacy in the *Primary School Library Guidelines* (2002), however, the lack of a standard framework in England and no mention of information literacy skills in the National Curriculum means that these skills are taught inconsistently from one school to the next. It is the responsibility of Professional and Policy to advocate and implement information literacy instruction consistently in every school.

Not only did each school in the study teach information literacy differently, each member of staff interviewed had a different perception on the importance of teaching information literacy. A consistent information literacy framework for primary school would ensure that these skills are being taught to students, and that a value is placed on these skills as important for lifelong learning. The employment of a dedicated librarian in charge of information literacy would also ensure that those skills are taught consistently, and would also provide evidence for the contribution information literacy instruction makes to other core subjects in the school.

School C had the most consistent IL teaching for the students. The librarian had been given the remit to teach IL skills in each grade level of primary school, and so the students had weekly instruction from the librarian which were supported by classroom teachers. The teachers were present during those instruction times, so they were able to carry out the strategies taught by the librarian in each class, so that every student had consistent teaching in every grade level. Consistent teaching resulted in the students searching for information quite confidently, and having the ability to explain why they

were using the sources they chose. They also used books and online resources equally, and were adept at finding information effectively in both.

This was contrasted by Schools A and C; IL instruction was left up to individual teachers in each year to carry out, and so the way that students were taught was dependent on the IL skills of each individual teacher. While the students in each of these observations were comfortable using internet searches to find information, they limited themselves to using primarily online sources rather than books sources to search for information, and their information management, like note-taking, was inconsistent.

In schools where there is no dedicated librarian, it is the responsibility of the school community to instruct information literacy skills to students. Teachers have excellent opportunities to embed information skills into daily lessons. Best practice would be the employment of a qualified librarian, who is able to teach stand-alone information skills lessons, in combination with teachers also repeating these skills in their daily assignments.

6.4.5 Recommendation 5: Guided research

Students should be guided by a teacher or librarian when they are doing research topics. Guidance includes being provided with reliable sources in different media, so that they are able to find the information they need without evaluation of resources, which may be above the cognitive level for younger students. It was commented by the head teacher in School A that students in primary school are too young to be carrying out independent research. This is a true statement: young students at primary level should be doing guided research, so that they can acquire tools to be able to manage independent research in the future. Guided research means that they are provided with some resources to help them with their search so that they can focus on learning how to find information to suit their need, rather than having to also evaluate whether or not the source is reliable. The perception is that because the students are able to use search engines because they grew up with them does not mean they know how to get the best information from those sites, and they need to have some balance between finding some sources on their own and also being guided in their resources with reliable websites or print media.

The students in School C performed better in their research tasks because the material was evaluated, by teachers and the school librarian, prior to the lesson. This meant that the students had credible print and digital materials readily available for their assigned task. Teachers guided the students to use appropriate resources so that they could see and use materials that they knew they could trust. The more students are guided through the research process by teachers or librarians in primary school, the better, and more critical they will be when they are expected to evaluate information independently. If there is an employed, school librarian, then resources should be chosen to support research activities

for each topic, then disseminated to teachers for use in the classroom. In the absence of a librarian, teachers should then ensure that students have access to reliable sources to guide them in their research.

None of the schools in the study required students to give author credit to any of the sources used in their research activities. The head teacher in School A stated that citations of sources was not needed until high school, so it was not something taught or required at primary school.

Senior management and the school community should guide and encourage students to cite any sources they use in their assignments. Citing sources avoids plagiarism, and also teaches students the correct formats for referencing, embedding those skills well before they arrive at high school. Similarly, teaching students notetaking techniques will prevent the students from copying and pasting large pieces of information, but rather teach them to break down large pieces of information to make it more manageable.

6.4.6 Recommendation 6: Collaboration of librarians and teachers

Teacher and librarian collaboration is vital to the information literacy instruction process. The librarian instructs the students on a particular aspect of information seeking, but it is up to the teacher to follow through with guiding students to use those skills in the classroom. Teacher/librarian collaboration is also important so that students are able to transfer information seeking skills to other areas of problem solving. In a study carried out by Patricia Montiel-Overall (2008), she found that in schools where there were high levels of collaboration between teachers and librarians, the students were more enthusiastic about using the library, and their ability to do research improved (p. 152). This was also evidenced by the observations in School C, where the library was used all day, and the librarian and teachers had worked together to choose stock that supported taught topics, and where the teachers and the librarian had worked together in the information literacy skills teaching. The librarian in School C changed her school hours in order to collaborate with teachers. She found that working after school hours made the teachers more willing to discuss acquiring new resources or ideas for IL lessons. Being able to use the library as an academic support, and having a specialist librarian to select appropriate stock led to teachers valuing the service, which was evident during the observations and conversations during the school session.

6.4.7 Recommendation 7: Use of Schools Library Service

The use of Schools Library Service (SLS) is recommended to enrich an existing school library, or to replace the service of a centralised school library. Unfortunately, as highlighted in Chapter 2, section 2.5, cuts to the SLS services means that they may be limited, if they exist at all. It is vital that policy makers know the benefits of SLS, and fund these services so that they can remain. Senior management can influence policy decisions on SLS by subscribing to, and using their services, especially in primary schools that do not employ a dedicated librarian. Schools Library Service is an excellent alternative if schools do not have a library on their premises. SLS gives schools the benefits of having a qualified librarian, because they offer training on resources to schools, and will even come into a school and do inventory, weeding of stock and assist with refurbishment. School B was a good model for the use of their local School Library Services. The teachers were enthusiastic about the resources they could borrow to enrich their lessons, and it meant that they did not need to use space in their very small school to house library materials. In addition, the school was able to keep their fiction book stock up to date so that the students had a varied number of books to choose for pleasure reading.

Two School Library Services managers who were contacted at the beginning of the research reported that SLS has a written information literacy curriculum that schools can use as part of their subscription. A qualified person from SLS will even go to the school to teach members of staff how to instruct IL to the students. Both reported that they had no uptake of that particular service by their local primary schools.

6.4.8 Recommendation 8: Training of teachers to implement information literacy instruction

If one of the barriers to teaching information literacy is that teachers themselves do not feel qualified to teach these skills, provisions must be made by senior management so that teachers can receive training in age appropriate activities that will lay the foundation for primary students to become information literate. It is also the responsibility of the school librarian to teach these skills to teachers so that they can embed good information literacy practice into their teaching, when applicable. School C was an example of best practice in this area. With the help of the school librarian, teachers were able to incorporate the librarian's information literacy instruction into their classes, starting with Reception age students. Teachers in the school felt confident teaching these skills, because they had been trained by an information specialist.

Professional bodies should look beyond librarians to ensure that all members of the school community are able to access workshops and instruction on how to implement information literacy skills teaching in their classrooms, and where applicable how they can work with their school librarian to craft their own information literacy understanding.

6.4.9 Recommendation 9: Develop a whole school reading culture

The Findings illustrate that the students in School C had better information literacy skills than in Schools A and B. Additionally, literacy in the school was also excellent at all grade levels. The school only where students were encouraged to read for pleasure, they also had time during their school day for informational reading, which supported both information and general literacy.

Whole school reading culture is fostered when senior management recognises the benefits of both information and pleasure reading. According to the school librarian, senior management in School C employed a librarian because he was aware that as information became widely available digitally, students needed to be able to critically evaluate information, so that they would have the ability to determine reliable information to meet their needs. In addition, the head teacher employed the librarian so that appropriate pleasure reading stock would be available to students, therefore increasing literacy in the school.

The school community can encourage reading for pleasure and for information in classrooms, even without the presence of a librarian. In School B, where there was no physical space for a library, the teachers maintained classroom libraries so that students could request and access enjoyable fiction for their pleasure reading. Teachers also used informational resources provided by the School Library Service to increase the students' reading of non-fiction sources that supported the topics taught during the school year.

6.5 Limitations of Research

The following sections outline the limitations to the study, and how challenges to the theoretical, methodological and practical choices were overcome during the study.

6.5.1 Theoretical Limitations

Published literature on primary school libraries in England was limited. There were a number of studies from the United States that were useful in a primary school library context, however, care needed to be taken when using these studies. US schools are different in terms of the qualification requirements for library staff, curriculum outcomes and the statutory requirement to provide a school library. Although the literature from the US is valid and important, it had to be carefully considered to exclude any direct comparisons about schools so that the researcher could refrain from judgement about primary school libraries prior to the observation sessions.

There are no theories about primary school libraries and their effects on information literacy instruction. Published literature dealing with primary school information literacy was lacking, which was challenging because it meant that there was no previous research at primary level that would

support the research carried out in this study. While that made finding sources difficult, the benefit was that this study contributed to a deficient body of literature.

6.5.2 Methodological limitations

The ethnographic nature of this study; spending time in only three schools, limited the degree to which the findings can be generalizable across the whole of England. This limitation was overcome by creating a replicable research design, so that a further study could collect data in the same way on a much larger scale.

The issue of bias needed to be considered during this research. The nature of interpretivist philosophy is that researchers cannot separate from what they know, and they are linked to their research objects, as highlighted in Section 3.4, p. 57. Reading a wide range for the Literature Review prior to the field research meant that the researcher had knowledge of evidence that school libraries positively influenced student achievement. Although this was known, the researcher needed to create a research design to eliminate the possibility that a school with a library and an employed librarian might be favoured over the two other primary schools involved in the study. The creation of frameworks for both interview and observations meant that there was consistency across the three schools being studied. Writing up each school into case studies also ensured that the same data was collected about each of the schools.

6.5.3 Practical limitations

The selection of schools, presented in Chapter 5, was especially challenging. Two of the schools who had agreed to participate decided at the last minute that they were unable to accommodate the observations. While this was initially frustrating, the schools that did agree to participate met the criteria for the research study, so there was no compromise in the research design. It was decided that School A, which was originally scheduled to be the pilot study, met the criteria for the main study, so it replaced schools who were unable to participate.

Time and timing for the field studies was another limitation of this study. While School A provided rich data because the researcher was very familiar with the school environment, the other two schools set strict limits on the amount of time that was allowed for the observations. For example, School B began their Moroccan study a few weeks prior to the observations, but because the students were scheduled to take the SATS assessment, the school did not want an outsider in the class until those exams were completed. This meant that the initial part of the research assignment was not observed. The observations in School C were limited to three days because that was the only research topic the students were completing at that time. Less time in the school also meant that the students were a bit

tentative to speak to the researcher initially, but fortunately, the researcher's experience working with the age group meant that the researcher felt comfortable enough to draw out some conversation with the students from the beginning.

Carrying out research in only three schools meant that issues, such as how much access to the internet students had at home, possible poverty, or inadequate teaching were not taken into account. Those are some facets that could affect the outcomes of students' information literacy abilities. The published literature does support that employing a professional librarian can overcome the issue of poverty, for example, but there was not time to consider that during the limited time this study had to be completed.

6.6 Recommendations for further research

As a result of this study, a picture of how year 6 students carry out research, and the ways in which school library provision contributes to their IL development has emerged. This was only a very small scale study, however, and there are still areas of research that could be addressed in and around this topic because information literacy and school library research are both minimal at the primary level.

- There is scope for further investigation into whether or not the school library positively effects the results of the SATS tests, which are given at the end of year 6.
- More research could be done about positive academic contributions from school librarians, and whether or not a primary school librarian who collaborates with teachers increases literacy levels in schools.
- An ethnographic study on students and information literacy skills could follow a group of students through one school year to determine how they use information literacy skills as part of class topics, other than just research.
- A study could be carried out to determine how pre-service teachers receive instruction on how to teach information literacy to students.
- A study of secondary school students who had access to a primary school library with a full time librarian to investigate their information literacy skills would be beneficial to determine whether or not they have better developed IL skills than those students who did not have library provision
- A longitudinal study of primary students could be carried out investigating the impact of information literacy instruction when it is taught in every year of primary school.

6.7 Summary

This chapter reflected the conclusions drawn from the Findings in Chapter 4, and discussed the challenges and contributions of this research study. Recommendations for school library practitioners were provided based on the data collected in the observation and interview sessions conducted. A list

of areas of further research was discussed, as school library research is still sparse, particularly at primary level.

This thesis contrasted the information literacy skills of year 6 students who had access to differing levels of library provision in primary school. Using qualitative methods, and more specifically case study reports, rich descriptions of each school were made and can now be added to a sparse body of research on primary school library provision in England.

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Appendix 1: Parental Consent

Dear Parents/Carers,

I am a PhD Research Student at Loughborough University undertaking a study about information literacy development at primary school. The study will involve the observation of year 6 students while they look for information about an assigned topic, and assessing how and where they find their information. While they are working, I may ask students about any research they might do outside of school. I will be observing the year 6 students during their normal class session, so it will not take any time away from the lesson.

No personal data about your child will be collected and their identities will be kept anonymous. I hold a current CRB certificate and I will be accompanied by the class teacher and teaching assistant at all times during my study.

The research will be fully explained to your child at the start of the observation and assessment, and he or she will be able to withdraw from the research at any stage, without giving a reason.

If you do not wish your child to be involved in the research, please complete the reply slip at the bottom of this letter and return it to Mrs Kristin Galley **by 22 May 2013**.

If you have any further questions about the nature of the observations or the research project in general, please do not hesitate to contact me at:

k.c.meredith-galley@lboro.ac.uk.

Additionally, you may contact my university supervisors, Dr Sally Maynard:
s.e.maynard@lboro.ac.uk or Professor Graham Matthews g.matthews@lboro.ac.uk.

Yours sincerely,

Kristin Galley



I **DO NOT** wish my child _____ (name of child) from class _____ to be involved in Kristin Galley's research study.

Signed _____ Date _____

Appendix 2: Student (participant) Consent

The contribution of England's primary schools to the development of information literacy skills

INFORMED CONSENT FORM

(To be completed after Participant Information Sheet has been read)

The purpose and details of this study have been explained to me. I understand that this study is designed to further scientific knowledge and that all procedures have been approved by the Loughborough University Ethical Approvals (Human Participants) Sub-Committee.

I have read and understood the information sheet and this consent form.

I have had an opportunity to ask questions about my participation.

I understand that I am under no obligation to take part in the study.

I understand that I have the right to withdraw from this study at any stage for any reason, and that I will not be required to explain my reasons for withdrawing.

I understand that all the information I provide will be treated in strict confidence and will be kept anonymous and confidential to the researchers unless (under the statutory obligations of the agencies which the researchers are working with), it is judged that confidentiality will have to be breached for the safety of the participant or others.

I agree to participate in this study

Your name

Your signature

Signature of investigator

Date

Appendix 3: Participant Information: Parent

The Contribution of England's Primary Schools to the Development of Information Literacy Skills

Participant Information Sheet – Parent Copy

Primary Researcher

Mrs Kristin Meredith Galley, Department of Information Science, Bridgeman Building, Loughborough University LE11 3TU, **Email:** k.c.meredith-galley@lboro.ac.uk. **Phone:** (07783) 185595

Supervisor 1:

Dr Sally Maynard, Department of Information Science, Bridgeman Building, Loughborough University, LE11 3TU, **Email:** s.e.maynard@lboro.ac.uk, **Phone:** (01509) 222178

Supervisor 2:

Professor Graham Matthews, Department of Information Science, Bridgeman Building, Loughborough University, LE11 3TU, **Email:** g.matthews@lboro.ac.uk, **Phone:** (01509) 223058

What is the purpose of the study?

This study will help me to learn more about how students do research in class and will help me to develop an assessment that might help them to use information more effectively.

Who is doing this research and why?

Mrs Kristin Meredith Galley is doing this research for Loughborough University; I am interested in finding out about the information literacy development in primary school students.

Are there any exclusion criteria?

If you or your child has not agreed to be part of the study, then he/she will not be observed or questioned about his or her work during any of the sessions. I will make certain I am sitting away from your child during the observation, and I will not ask him/her any questions about the assignment.

Once my child takes part, can I (or my child) change our minds?

Yes! After you have read this information and asked any questions you may have we will ask you and your child to complete an Informed Consent Form, however if at any time, before, during or after the sessions you wish your child to withdraw from the study please just tell Mrs Galley. You can withdraw your child at any time, for any reason and you will not be asked to explain your reasons for withdrawing.

Will students be required to attend any sessions and where will these be?

All sessions will take place in school, in students' normal place of working.

How long will it take?

I will be coming in to observe students for a maximum of three months. Your child's teacher and I will determine how often during that three months I will be in class observing students.

Is there anything my child needs to do before the sessions?

Your child doesn't need to do anything at all.

Is there anything my child needs to bring with him/her?

Your child will only need the materials they would normally bring with them to school. Nothing extra is required!

What type of clothing should my child wear?

Students should wear what they normally would wear to school.

What will my child be asked to do?

Students will be observed by Mrs Galley working on a research lesson which will be set by the class teacher. Your child may be asked some questions about their work by Mrs Galley while they are working on their assignments, and Mrs Galley will assess their ability to find and use information during the assignment, but they are just completing their school work as they normally would.

What personal information will be required from my child?

I will ask students for information about their school library, the public library and whether they use books or computers at home. I may also ask questions about the work that they are completing, but no personal information will be collected.

Will my child taking part in this study be kept confidential?

Your child's name and the school name will not be revealed to anyone. Your child will be known by a number and all the information I collect will be kept on a password protected USB stick. This information will be destroyed after 10 years, which is in compliance with the Data Protection Act 1998.

What will happen to the results of the study?

The results of the study will be written into a final thesis to fulfil the requirements of a PhD level degree.

I have some more questions who should I contact?

Any questions you may have can be answered by Mrs Galley (see the contact details above) at any time before, during or after the study.

What if I am not happy with how the research was conducted?

If you are not happy with how the research was conducted, please contact the Mrs Zoe Stockdale, the Secretary for the University's Ethics Approvals (Human Participants) Sub-Committee:

Mrs Z Stockdale, Research Office, Rutland Building, Loughborough University, Epinal Way, Loughborough, LE11 3TU. Tel: 01509 222423. Email: Z.C.Stockdale@lboro.ac.uk

The University also has a policy relating to Research Misconduct and Whistle Blowing which is available online at [http://www.lboro.ac.uk/admin/committees/ethical/Whistleblowing\(2\).htm](http://www.lboro.ac.uk/admin/committees/ethical/Whistleblowing(2).htm). Please ensure that this link is included on the Participant Information Sheet.

Appendix 4: Participant Information: Student



The Contribution of England's Primary Schools to the Development of Information Literacy Skills

Participant Information Sheet – Student Copy

Primary Researcher

Mrs Kristin Meredith Galley, Department of Information Science, Bridgeman Building, Loughborough University LE11 3TU, **Email:** k.c.meredith-galley@lboro.ac.uk.

Supervisor 1:

Dr Sally Maynard, Department of Information Science, Bridgeman Building, Loughborough University, LE11 3TU, **Email:** s.e.maynard@lboro.ac.uk, **Phone:** (01509) 222178

Supervisor 2:

Professor Graham Matthews, Department of Information Science, Bridgeman Building, Loughborough University, LE11 3TU, **Email:** g.matthews@lboro.ac.uk, **Phone:** (01509) 223058

What is the purpose of the study?

This study will help me to learn more about how you do research for class assignments.

Who is doing this research and why?

Kristin Meredith Galley is doing this research for Loughborough University; I am interested in finding out how and where you find and use information for a class research assignment.

What if I do not want to take part?

If you or your parents have decided not to participate, you will not be observed or asked any questions during the lessons. I will make sure I am working in a place away from where you are sitting, and I will not ask you any questions about your work.

Once I take part, can I change my mind?

Yes! After you have read this information and asked any questions you may have we will ask you to complete an Informed Consent Form, however if at any time, before, during or after the sessions you wish to withdraw from the study please just tell Mrs Galley. You can withdraw at any time, for any reason and you will not be asked to explain your reasons for withdrawing.

Where do I have to go?

All sessions will take place in school, in the room you would normally look for information.

How long will it take?

I will be coming in to observe students for three months; your teacher and I will decide how often during those three months I should be in the class with you.

Is there anything I need to do before the sessions?

You don't need to do anything at all.

Is there anything I need to bring with me?

You will only need the things you would normally bring with them to school. Nothing extra is required!

What type of clothing should I wear?

You should wear what you are normally expected to wear for school.

What will I be asked to do?

You will be observed by Mrs Galley while you work on a research lesson which will be set by your teacher. You may be asked some questions about your work while you are working on their assignments, but otherwise, you are just completing your school work as you normally would.

What personal information will I have to give?

I will ask you for information about your school library (if you have one), the public library and whether you use books or computers at home. I may also ask questions about the work that you are completing, but no personal information will be collected.

Will my taking part in this study be kept secret?

Your name and the school name will not be revealed to anyone. You will be known by a number and all the information I collect will be kept on a password protected USB stick. The information you give me will be thrown away after 10 years.

What will happen to the information I give you?

The answers you give me and the way that you do research in class will help me to write a report that I will hand in to Loughborough University.

I have some more questions who should I contact?

Any questions you may have can be answered by Mrs Galley (see the contact details above) at any time before, during or after the study.

What if I am not happy with how the study was done?

If you are not happy with how the research was conducted, please contact the Mrs Zoe Stockdale, the Secretary for the University's Ethics Approvals (Human Participants) Sub-Committee:

Mrs Z Stockdale, Research Office, Rutland Building, Loughborough University, Epinal Way, Loughborough, LE11 3TU. Tel: 01509 222423. Email: Z.C.Stockdale@lboro.ac.uk

The University also has a policy relating to Research Misconduct and Whistle Blowing which is available online at [http://www.lboro.ac.uk/admin/committees/ethical/Whistleblowing\(2\).htm](http://www.lboro.ac.uk/admin/committees/ethical/Whistleblowing(2).htm). Please ensure that this link is included on the Participant Information Sheet.

Appendix 5: Field Notes excerpt: School A

Thursday, 10th January 2013

Assignment: Students will complete a series of mini research projects covering the topic of the Poles.

CTPS6: “Today’s assignment will be general research to find some information on the topic. The facts you find today can be added to the notes you’ve taken on the movie we watched last week: Frozen Planet”

RQ to CFPS6: “When you watched a video last week, did you take notes as you watched”?

CFPS6: “Yes, we had to write down anything we thought was important or interesting”.

CTPS6: “The information you find today will be used to create a fact file in the form of either a poster, or a brochure/booklet. These will be created by hand since we only have a limited time in the computer lab.”

From the information on the whiteboard:

you could choose to research the following subjects within each region:

- types of animals/plants
- land area (does it change through the seasons?)
- climate and weather (temperature, hours of sunshine, snowfall)
- North Pole/South Pole
- landmarks (mountains, volcanoes, etc.)
- people

CTPS6 asks students if they can think of anymore, students responded as follows:

- animals
- islands around
- crystals/snowflakes
- food chain: predator/prey
- seasons

CTPS6: “Remember that this should be general research: not too specific or detailed today. Next week you’ll have a chance to write a detailed report on animals.”

CTPS6: “who can tell me how we go about finding information from the computer?”

Students:

“Look on different sites to compare, to see if the information is true.”

“Search with Google”

CTPS6: “what other places could you search besides Google?”

Students:

“Wikipedia, Bing”

CTPS6: “when you look at Google, for example, what are you going to type in?”

Students:

“Antarctica/ Arctic”

“Facts about the North/South Poles”

“Famous landmarks in Antarctica”

CTPS6: “if you were to only type in Antarctica, do you think it will be easy or hard to find information?”

Student: “it will be hard because it will give you too much information; it needs to be narrowed down.”

CTPS6: “Right. So what can you do with inverted commas?”

Student: “it helps to narrow down, and find the websites that relate to the words you put in inverted commas.”

CTPS6: “Good. Can we remember some safety issues concerned with the computer? You are using the computers to do research freely, so what should you do if you open a site that is not appropriate by accident?”

Student: “turn the monitor off and come and tell you.”

CTPS6: “right. And remember that Mr X monitors everything you search for on the computers, so he can see if you’ve been on something inappropriate. It’s ok if you do it by accident, but no one should be looking at inappropriate stuff on purpose.”

2nd part of lesson was held in the ICT lab: students had 40 minutes to complete their research.

students used the following keywords:

- who was the first person to set foot on the Antarctic? (RQ: Did you manage to find some information when you typed that phrase in? Students: Yes...the first and second hits gave us the same name, so we used that)
- Antarctic landmarks/facts
- famous landmarks in Antarctica
- Antarctic animals
- North Poles coldest conditions
- Antarctica types of animals
- How thick is the ice that covers the Antarctic?

One group started their search with Wikipedia and they found some information, but moved on to a different website a few minutes later:

RQ: “what made you decide to go on that website instead of staying with Wikipedia?”

AMPS6: “Wikipedia had good information, but it was written in long paragraphs, and we only need small bits of information. This website (points to screen) gives facts in short sentences.”

Researcher commented to the teacher that their key wording and use of a variety of sites was better than expected. Teacher responded that they do work on this a little bit in every year group.

CTPS6: “Try not to copy it all out from the site, it will take too long, Try to highlight some key facts instead because people will be more likely to remember short facts.”

ZFPS6 (to researcher): “I’m not very good at taking notes, so I’m not sure how much information I should include about these animals.”

Researcher: “Could you try and separate the facts you have with bullet points, so the related information is together in smaller chunks?”

CTPS6: “Again, try not to copy long passages, or get too detailed about your information. You should be writing notes in short, snappy bits: facts, dates, people or animal names.”

ZFPS6 to Researcher: “it says here that there are 1.5 million people in the Arctic, but how can that be? It’s mostly animals, isn’t it?”

Researcher: “how could you find out if that’s correct?”

ZFPS6: “I could look on Google or at another website.”

Researcher asked groups how many websites they used to find their information. All of them used at least 3, most used 4.

Most popular websites:

BBC nature

Espresso for primary

Antarctica fact file

Second part of the lesson was back in the classroom.

Students were now given the opportunity to use their information to create a brochure/booklet or a poster. There was a suggestion that these could be displayed in the school library.

Students each had a turn to contribute one fact that they'd found during their research before beginning the creative part of the project.

The creative part took 45 minutes.

Students designed their projects in their 'brain training' books before committing them to poster paper or booklet.

No mention of giving credit to websites anywhere on their posters.

No mention of using the library, books for research or even books to look beyond the topic. There are 6 books that cover some aspect of the Polar Regions displayed in the back of the classroom.

General question to 3 students (two of whom are student library assistants, as well) at the end of class:

Researcher: "Before this school year, did you use or borrow books from the school library?"

GMPS6: "No – the library was only open for a few minutes in the morning, so we had, like, 5 minutes a day. And the books weren't very good, so there was nothing I wanted to read."

EMPS6: "We only went to the library if we went with a class to read or something, but not to borrow books."

Student 3: "Before, I only used to go once a month, but now I go in once a week at least because the books are better now and it's open more."

Findings of observation 1:

Based on the ease at which the students did the research on this topic, it was clear that they'd been taught how to locate and evaluate websites. Since there has been no librarian in post at the school until spring of last year, members of teaching staff have made it their responsibility to teach information literacy as part of the curriculum. Students did not waste time looking at information that did not meet their needs, and though Google was the only search engine they used, the researcher observed that each group scrolled through the results from their search, rather than taking the first hit at the top of the list. They recognised when a website did not fit their purpose, and moved on quickly to something more suitable.

Note taking presented more of a challenge to students when they found their information. They tended to copy down entire passages of text, rather than breaking it down into bullet points. They were unsure as to whether the information they were finding was relevant, and thought they were given the guidelines that this was supposed to be general research; one group spent too much time finding specific details on the animals that they had searched for.

The library was not mentioned as a source of information for this project. An interview with the class teacher the next observation day will address this, and find out if students use information books for research of any of the topics they cover during the school year. Additionally, an interview with the teacher will reveal whether or not she uses the public library's Library Development Officer as a support to teach information literacy.

Appendix 6: Field Notes excerpt: School B

School A

Session 2

Monday, 10th June 2013

13:30

CTSA began by asking the students to review the assignment they had been given.

She then reminded them that they had to find a way to present the holiday to their family when they were finished.

CTSA: Are there any problems with the assignment you want to address now?

Students:

Finding the flights was a bit weird on the internet (student seemed confused about flexible booking).

A brochure said that children were allowed, but when we checked the hotel website, it said that children were not allowed.

Student question: Can we book a car?

CTSA: Good question, and it shows that you are thinking about how the family will get around while they are on their trip, but do they have to travel by car? What are the options?

Trains

Yes, we know they have trains.

So, if they have to go to two different places, can they stay at a really expensive place for the first week and a half, and then stay in a shed for the other couple of days? >laughter<

Yeah...can they be on the street?

CTSA: Hmm...your holiday probably will not be chosen...

What about food? Mine would use up all their money on the flight and hotel, do they need to eat?

Are any of the family members vegetarians?

CTSA: Good question, but no...let's say none of our family are vegetarian or disabled and make it fairly easy.

CTSA: Today we are only going to use the brochures to find our information, so that you learn a little bit about how to use them. (distributes brochures).

CTSA: Tell me what you know from the front of the brochure.

Students

-it's for Thomson

-it's for Egypt, Morocco and Tunisia

CTSA: Right, so what do we have to be careful of?

-that we book our holiday in Morocco and not Egypt.

CTSA: Right.

Student: On the front it says that the holidays in this book are not in any other book, is that right?

CTSA: It seems that way from what the blurb at the front says.

CTSA: So what kinds of information will you find inside the book?

-will there be a table of contents?

-information about Egypt, Morocco and Tunisia.

-Beach holidays

CTSA: Ok. Open up and see if there is a table of contents.

Student: there is.

CTSA: What page do we need to turn to so we can find Morocco?

CTSA: Right, you have 10 minutes to look through your brochure to tell me how you'd go about booking your holiday by using this brochure.

Students really struggled with this assignment, because they were only fixated with the hotel and the flight. They didn't take into account whether it was self-catered or all inclusive, they didn't really think about the fact that they would need to make sure they kept some of their money aside for any travel expenses while in the country or for their excursion. Is this because this kind of activity is unknown to them, or is it because they lack the skills to problem solve this kind of activity? Also, they tended to get caught up in what the hotel looked like on the outside, rather than thinking about value for money.

Students looked thru to find prices of hotels and flights on the Morocco pages listed.

What should they be looking for?

What are they struggling with?

Some students were distracted by the Egypt page.

They are 'caught up' in the quality of the hotel – how it looks on the outside (based on the photo).

Working out the prices based on the brochure was challenging, especially based on the dates they wished to go. Again, they did not understand much of the terminology and no instruction was provided unless they asked what something meant. Additionally, though they seemed to find better accommodations in the travel brochures, they were unsure about how the pricing structures worked, another thing they weren't instructed to do.

Interview Question: when they do research for a class assignment, how are research skills taught prior to the assignment?

Are they looking at whether it's self catered?

They are only considering hotel and flights at the minute, so they aren't remembering that they need enough money leftover for excursions.

At this point (about halfway thru), the teacher finally stops them for a few minutes to process the pricing structure. She pointed out the grid at the bottom of each hotel information section, where you can find the dates ou want to go, determine how long you are going for, and the price for the children are posted on the end of the grid. <points to one person's brochure> this hotel does not do 7 nights...you can only book for MORE than 7 nights, so it wouldn't be ideal for your holiday, since your family needs to change hotels.

Some hotels have a 'second child goes free policy', look thru the brochure to find hotel where a second child goes free.

CTSA: What else can you find out from the brochure?

Students:

Some websites don't show photos of the hotels, but the brochures do.

Here it says that they have a kids' pool

CTSA: Right, so there is information about the facilities, so you can find things out about whether they have a kids club that they can go to.

Good to look in the brochure first b/c it's 10p per minute to ring.

CTSA: So how can you avoid those phone charges?

Go to the travel agent directly.

<students fixated here on how to phone for 59 seconds, then hang up and call back for 59 seconds, etc...discussion ensued about how it's UP to a minute, etc...>

CTSA: Does the brochure help with anything else, or just hotel?

Students:

Activities and entertainment

Luggage allowance

CTSA: Why do they tell you about that?

Students:

Ummmm....flights?

CTSA: Where does it tell us about planes in the brochures?

(Waiting for students to finally 'get' that the price on the hotel pages is for flights AND hotel!)

CTSA: Everyone turn to the flights page. What does this page tell us? (no answer). How do you think we negotiate this page? (Students carry on looking at the page without responding)

CTSA: Right. You have 3 minutes to figure out how this page works, and then you'll tell me.

Teacher mentioned to me at this time that students are not very comfortable using books; if they are given the choice, they will use the internet every time because they think it's easier to do that.

CTSA: What did you find out about the flights page?

Students:

You have to look at the flights to morocco page

CTSA: Where do they fly to?

Students:

Agadir, Marakkesh

We have to be flexible because they don't fly everyday, so we might have to change dates.

There is a charge for extra seats.

It is more money when you go in the high season

It does not give flight times

CTSA: it does! Does it tell you which airport it flies from and give a flight number?

Students:

It tells you which airport

It says TOM then a number.

CTSA: that means it's a Thomson airline, so that's your flight number.

CTSA: Now think about the cost for hotels. Where's the cost for flights? <teacher is still waiting for them to figure out that the flights and hotel are both included in the prices>

Student: if you go to flight to Morocco, across the top it says £50.

CTSA: that's a supplement that you have to pay if you go at a certain time of the year.

So, how much do the flights cost?

<silence>

Go back to the hotel you found, and see if you can work out how this works. How do you know the cost of the flights and the hotels. (2 tables raise hands)

Look at the pricing section of the hotel...see how this works!

<still waiting>

CTSA: Have you worked it out, yet?

It's tricky

Student: The price of the hotel page is for flights - we think it's for both, because it says all inclusive.

Student: so the cost listed on this page is the price of hotel/flights for those dates.

CTSA: You still have to tell the family how much it costs, it's not enough just to tell them it's all inclusive.

So THAT's why they tell you how much luggage is allowed.

You have to add the supplement(if applicable) PER PERSON if you go in high/med/lo season.

Does the brochure help with excursions?

Students:

It tells you that there are pool view and sea view rooms

There is a picture of a beach on the page, so the beach is there.

<more answers were given that had to do with the amenities of the hotel...do they understand the word 'excursion'?>

CTSA: Take two minutes to see if you can find out anything about excursions.

<does their struggle have anything to do with their IL skills, or because the brochures are a new thing? Would a librarian have been able to help? What is the reason they weren't instructed on the use of the websites and brochures at the beginning of the research project, rather than as and when?

CTSA: Ok – did we find any thing about excursions?

Students:

No.

Pictures of the hotel.

The pictures show you which way to go (points to the picture)

There is some information in pages 131 and 132.

CTSA: How do those pages help?

Students:

Says the top 5 things to see and do in those destinations. It does not tell the price, but it might give some ideas, and you might find other brochures do offer excursions and give prices.

CTSA: Are we clearer about how brochures work?

Ok. 10 more minutes to look at other brochures to see if any of them suit your family.

Conversation with Teacher: CTSA: it will be interesting to see how they use the internet differently once they are allowed to use the laptops.

<Will their internet searching be more efficient now that they've worked with the brochures?>

CTSA: Using different books was a bit of a challenge because all travel brochures are set out differently. On Friday, they will get a choice of either brochures or internet...I'll bet they all get a laptop when given the choice.

End of class:

Student comment: The child provision was a bit frustrating to work out

Yeah some hotels don't accept children, but it's hard to know which one.

And some hotels only accept ONE child! How can they do that?

CTSA: Why might you not be allowed a 2nd child?

Student: there might not be room for two.

CTSA: would a family of three be able to book via brochure?

Students:

Probably not.

They might have to get two rooms

You might have to pay for two extra kids,

What if you had three kids? Could you take a sleeping bag, or would you have to phone up the hotel and find out what to do?

Would you have to take less luggage?

Leave one child at home?

It's illegal to leave a child unattended!

3rd child in a suitcase?

CTSA: What are other options besides a hotel?

Students:

House

SQ: how do you decide which child is free?

Do some hotels do baby watching?

Are there lions in Morocco?

Appendix 7: Field Notes excerpt School C

Observation Day 3

14th November 2013

Chose to spend the majority of time with the lower ability group today because they are the only group who has not completed the assignment, and they are only on their second full class of research.

Also, this group was introduced to me by the teacher as a lower ability/confidence group, however, they did not appear to struggle to find the information required to complete their task. I wanted to observe their process further.

Today the students will organise their notes into paragraphs. Teacher modelled the diagram that the children should use for their final explanations. The students offered explanations for some of the key river vocab words: meander, tributary.

Each group of students presented their information from yesterday to the other students in the other groups.

CT reminded students how to take notes on presentation, using dashes, no ands or sentences, just enough information to be a reminder, so it can be used later.

Group of 3 girls, **FFSC6, GFSC6, HFSC6. RQ:** Where did you get most of your information?

FFSC6: Books and the internet were the most useful.

Group of 3 boys, **IMSC6, JMSC6, KMSC6. RQ:** Where did you find the most useful information?

JMSC6: Books.

RQ: What was most useful about them?

JMSC6: Because you know that the info that you find in the books is true, and you cannot always trust that internet to give true information.

Another girl group (There were only two male groups in this class, and one of the boys in one of the boy groups did not give consent to take part in the research, so I talked primarily to the other students).

LFSC6, MFSC6, NFSC6.

RQ: Where did you find the most useful information?

NFSC6: The books were really good, but we found some things on the websites we were given, too...so they were the most helpful.

While observing note taking again during this exercise, it was noticed that note taking was efficient, and students took brief, but useful notes to use for their research.

CT: What do you think you've learned when carrying out research and fed it back to others? What are the key things to remember about research?

-speak clearly when feeding back

-teamwork: everyone plays a part

-everybody contributes to feeding back

-Spellings- can use some of the river words for spelling practice

-listening to the others

-know what important vocab means when feeding back – dictionary or glossary.

CT: We now have lots of information that we can use to write our final explanations tomorrow.

Appendix 8 : Interview Schedule Andrew Shenton

Interview: Friday, 7th March 2012

Interviewee: Andrew Shenton

I am conducting research that will investigate the development of information literacy skills at the primary school level. Your many publications about youth information seeking are interesting and integral to my work. Your responses in this interview will give me further insight into school libraries and information literacy instruction.

I would like your permission to record our interview so that I can go back and review your responses if I need to; the recording will be kept safe, and destroyed after 10 years according to the Data Protection Act of 1998. Your identity can be kept anonymous, if you wish. You are free to withdraw from this study at any time, and you do not have to give me a reason.

The following questions will serve as a guide for our interview, but we are in no way limited to just these questions.

Background questions:

Experience (if any with school libraries)

Studies in schools

Why young people?

Current position

General Questions:

Do you have any insights into why little attention has been paid to youth information seeking behaviour?

Do you think that ties in with attitudes toward school libraries?

Do you believe that the library has a role in information seeking behaviour?

Is it your experience that school libraries should be central to the instruction of information literacy?

In your experience, what kind of process have you observed when young people are searching for information?

How do young people process the information that they find?

What problems arise during an imposed query situation?

Have you witnessed a difference in information seeking when students choose their own topics as opposed to assigned topics?

How can a school librarian support the information seeking of his/her students?

In a world where students are 'networked', does instruction about book use still relevant?

In terms of information literacy, how can school librarians 'repackage' the image of the library in order to appeal to students and teachers?

I was interested in the section of your article that discussed the idea that Internet filtering, while an obvious safeguarding issue for schools, actually limits students' practice in source discrimination;

Does a VLE, with links to resources actually hinder students' ability to locate information?

I do appreciate your taking the time for this interview.

- I understand that I am taking part in an interview that may be used in the investigation of information literacy skills in primary school.
- I understand that the interview will be recorded, and the recording will be stored securely by the researcher.
- I understand that my name and any identifying details will be kept confidential by the researcher.
- I understand that I am free to withdraw from the investigation at any time without giving a reason.

If I have questions, I can contact the researcher, Kristin Meredith Galley at any time (k.c.meredith-galley@lboro.ac.uk) or her supervisors at Loughborough University, Dr Sally Maynard (s.e.maynard@lboro.ac.uk) and Professor Graham Matthews (g.matthews@lboro.ac.uk).

Signature of interviewee_____

Signature of Researcher_____

Appendix 9: Interview Schedule Geoff Dubber

I am conducting research that will investigate the development of information literacy skills at the primary school level. Your SLA Guidelines publication, “Cultivating Curiosity: Information Literacy Skills and the Primary School Library”, has helped me to consider the possibility of developing an information literacy skills assessment to use with my upcoming study in schools. Your responses in this interview will give me further insight into how you developed the 28 Essential Information Literacy Skills assessment list.

I would like your permission to record our interview so that I can go back and review your responses if I need to; the recording will be kept safe, and destroyed after 10 years according to the Data Protection Act of 1998. Your identity can be kept anonymous, if you wish. You are free to withdraw from this study at any time, and you do not have to give me a reason.

The following questions will serve as a guide for our interview, but we are in no way limited to just these questions.

1. Tell me a bit about your background and how you became interested in school libraries.
2. You currently deliver workshops to schools and librarians...can you tell me a bit more about the work that you do?
3. How are primary schools currently delivering information literacy instruction?
4. Do you believe that school libraries play a role in students’ development of information literacy?
5. Are there barriers to teaching information literacy in some of the schools you’ve visited? What are those barriers?
6. What influenced you to create an assessment for information literacy?
7. You used the National Curriculum standards to develop the performance indicators in your assessment checklist. What other factors did you consider?
8. How would you define beginner, apprentice and expert in your checklist?
9. How many schools have used your checklist?

10. Can you tell me about any of the feedback you've received about the use of the checklist?

11. Do you have any questions for me?

I do appreciate your taking the time for this interview.

- I understand that I am taking part in an interview that may be used in the investigation of information literacy skills in primary school.
- I understand that the interview will be recorded, and the recording will be stored securely by the researcher.
- I understand that my name and any identifying details will be kept confidential by the researcher.
- I understand that I am free to withdraw from the investigation at any time without giving a reason.

If I have questions, I can contact the researcher, Kristin Meredith Galley at any time (k.c.meredith-galley@lboro.ac.uk) or her supervisors at Loughborough University, Dr Sally Maynard (s.e.maynard@lboro.ac.uk) and Professor Graham Matthews (g.matthews@lboro.ac.uk).

Signature of interviewee_____

Signature of Researcher_____

Appendix 10: Excerpt of Marked Transcript

T.D.
F.T.E.
AppAck

School A

Wednesday, 5th of June 2013 1:30pm

The assignment: Students are required to create a two week holiday to Morocco for a family of 4; two adults, two children (aged 10, 12). They have a £3000 budget, and the family must travel to two places in Morocco(the family wants a city break and a beach holiday) and go on two excursions.

CTSA: What can you remember about our research challenge?

Students: volunteered responses about the Morocco assignment.

CTSA: Where can we find our information?

computers

travel books

travel brochures

CTSA: What information might you find:

Students:

hotels, flights, beaches, places to go visit

CTSA: If we use the internet, what will we look for:

Students: flights, cost of hotels, find places to go names of hotels.

The students seem to understand the assignment and know what they are looking for.

T.D.

CTSA and the students discussed the differences between a travel guide and a travel brochure: a travel guide is usually for the whole country and gives information about places to see and travel, where brochures usually give specific information about hotels and excursions.

CTSA: What will you have at the end?

Is this
T.D.
or
App??

Students: Something to present \

CTSA: to whom?

Students: to the teachers |

CTSA: Then what?

Students understood the
purpose of their assignment
and what it would be
used for.
Assessment??

Students: The teachers will pick which holiday out of all of ours that they would go on.

CTSA then paired off the students, and gave a sticker to those in year 6 (since it's a combined class of years 5 and 6, I will only look at the year 6).

CTSA: What should you do first with your partner?

Students:

Greet them politely,

talk about the assignment.

Talk about any ideas you might have about how we will go about the assignment.

CTSA: You'll need some planning time to decide how you will go about before you start, and whether you are going to start with books/computers/etc.

Student question: are any of the members of the family disabled?

CTSA: excellent question, but no, let's assume that they are all able.

This session was all about planning: they were given a laptop to use in the class, and all the travel brochures were laid out within easy access to the students.

Keywords:

(Google was the search page that opened once the students had logged in)

Cheap flights to Morocco from England

British Airways

Students
logged in,
but no dialogue
about how they
would approach
the task was
recorded.

again, lack of exp. w/ travel websites! Is this smthg. that LL instructor would cover?

The internet seemed to be difficult for students to find the information they wanted, so each pair had a look through the travel brochures to find information, and though they were confused about the way the prices were laid out on each hotel listing page, they found the brochures helpful for finding the hotels that they wanted.

Two pairs were confused about whether children were included in some of the hotels.

One pair was concerned that there were no photos included on the website and decided that might be something to consider when looking for a hotel.

Good ques. - was vague in some brochures.

Could be a facet of evaluation - the source may not be fit for purpose?

CTSA wrote the name of an airline on the board 'an airline you could try is the Royal Air Maroc'.

Students got a bit stuck if the hotel was out of their budget; one pair wanted to ring them up to see if they could get a better deal over the phone. :)

- This was amusing, but did indicate that this pair knew that a person might be a better source?!

One pair visibly cheered:

RQ: You're excited...what have you found?

SA: we found a flight and hotel for £1479, the kids go free AND it's a 4 star hotel. This pair got an eyewitness guide to look for places to go while on holiday, want a beach and somewhere else.

This is the same pair that started w/ books and used the internet to verify.

CTSA to R: filling in the forms is difficult for them, they are unsure about what 'destination' means. Also, they only want to put in the dates they are given, so if summer holidays are from July 13- August 29th, those are the dates they put in. Also, flexible dates was something they didn't understand.

Interview Question: Would a lesson in terminology have helped them prior to the assignment?

Student questioned the codes for payment; didn't know what GBP or USD meant.

One pair of boys 'stuck' on a hotel that is too expensive, but they don't want a different one - they are pleased with the amenities they offer, and the location.

They found what they were looking for, but it doesn't suit the purpose of the assignment - they don't want to go on to a new search.

CTSA: Stop. If you need to make a note of a website, do so now. Close the computers, brochures back.

End of topic work (research end 2:45, so 1 hr 15 mins).

CTSA: What went well?

Students:

Nothing!

Finding the hotel was ok.

Nothing - we found a hotel, but the website was dodgy it asked on the form how many adults and children, but when we clicked submit, it said no kids were allowed.

Not very well - we looked at airlines, and we liked a hotel, but it's too expensive.

Me and J found it hard to find flights, and that's all we were able to do.

We looked at lots of comparing sites, we found a hotel that wasn't bad.

It went ok, but we're spending a lot on flights and hotel.

CTSA: Harder than you thought?

Students: YES!

CTSA: What did you think about the holiday brochures?

Student: They were useful for finding hotels that were nice.

CTSA: Next time, we will look at the brochures first to find hotels; they might be a bit more useful. You've found the internet quite tricky, so the holiday brochures might be better than the internet.

task was difficult
hard for them
to find the info
within parameters
of assignment.

These guys stayed
stuck with
online
sources -
did not
really

↓ This is why
guided is better -
students did ok, but
would they have done
better w/ instructions
about terms, forms and
how travel info is stored?