Information Literacy in elementary schools

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Humans are a unique species in that they can accumulate experiences in form of culture, a special medium of life that consists of a set of interrelated and shared artifacts that their offspring can access and incorporate. Human development is thus achieved by incorporating these artifacts into the mind. The human species, more than any other, acquires behavioral characteristics through learning. Moreover, human organize learning opportunities for their young to socialize or acculturate them in particular ways. Education has emerged from this species-specific tendency.

Serpell and Hatano 1997
Abstract
Information literacy is nowadays regarded as an increasingly important subject, since we see it as a set of skills which enable individuals for life-long learning. This allows for an easier integration of the individual in the so-called information society. Despite these facts, it is still very overlooked on the educational context, since basic school to higher education.

With this work, I attempt to find out how is Information Literacy integrated in elementary school’s education. I focused on the relevance of information literacy on the context of today’s society, on the theories and informational models which could be applied on basic schools, and also actual elementary school teachers and school librarians’ statements.

When I put together both the teachers and school librarians’ answers and the theoretical research, I understand that Information Literacy instruction could be better integrated in Elementary school education through a wider collaboration between teachers and school librarians because they’re both responsible for ensuring the development of the needed skills. I then suggest ways and activities to ensure that this desirable collaboration becomes successful.
Introduction
When I began attending the University of Porto, thus starting my bachelor in Information Sciences, I felt overwhelmed by the very large amount of information my teachers were handing over to me. This information came in various shapes and sizes including, but not limited to, written and oral information, the course materials, recommended books and papers, all for the purpose of deepening and solidifying my knowledge in the various courses I took.

Truth be told, I wasn’t ready at all to cope with this kind of research. Its scope was too great, too broad for what I have been prepared to handle during my previous education. I had no clue as to where to research, and what to research, and the easiest solution would always be to Google whatever I had to. Whenever I discussed these concerns with my colleagues, I began to realize I wasn’t the only one facing the woes of information overload. In fact, none of my colleagues was able to say he was ever trained to deal with serious research methodology, as the relevant course materials had always been very few, and handed to us on a golden platter.

We must face the fact that schools aren’t always ready for the ever-changing society we live in. Despite the argument that technological advances have made access to information easier, there is an ongoing concern that students still are not becoming information literate, that they cannot retrieve and evaluate the information that will be required for problem-solving and decision-making in the workplace and in society generally. That’s what happened to me, and happens everyday to many students around the world.

Context of the case
Often — somewhere between the educational ideals and the actual teaching practices — there stands a barrier tall enough to present a manifold array of restrictions to cross. These restrictions have their roots in the difficulty to implement innovative educational theories on the school culture. It is thus that — despite arguing that teaching should be centered on the student's activity, in the development of his self-learning ability, and the relationships between his different kinds of knowledge, defended in a pretentiously humanistic education paradigm — we continue to perceive the existence of teaching practices with a strong expositional component and that work in isolation, electing the manual as the main working instrument, as if it contained a dogmatic and well defined knowledge, more related to the rational educational paradigm.

It is also true that — besides arguing how important it is to integrate school library resources in classroom practices, in order to engage in teaching and learning processes based on the use of
information that the student will transform in knowledge — this integration is still very limited. On the one hand, the librarian mainly remains focused on document management tasks and the coordination of library services. On the other hand, collaborative working practices between school library teams and the teachers in general — which should promote learning based on researching information resources, available at or through the school library, to promote both literary and informative reading — are still little developed on school libraries. This situation is especially notorious on elementary schools, characterized by a strong division of the school structure based on disciplinary areas, which encourages isolation in teaching practices.

Truth be told, school libraries in general still suffer from a lack of material and technical resources, but especially human resources with an appropriate academic and specialized training. However, a lot of effort has been put into this area, and the number of school libraries well equipped an organized is growing alongside good practices. Nevertheless, the investments made to endow libraries with these resources aren't always echoed in the process of teaching and learning. The school library and the classroom are still largely two separate worlds, and even when the librarians and teachers are aware of the need to promote the intersection between the two worlds, it generally materializes as extracurricular activities or simply in the suggestion of new books. The librarian isn't yet perceived as a useful partner in the formation of the students, and even when collaborative work exists between them and the disciplinary teachers, it is not in material production, but is limited to sporadically organizing extracurricular activities, supporting teachers in retrieving and providing documents, or supporting students when working on library premises.

This attitude might be related to factors ranging from the lack of available information to teachers in general on the roles of the library and the librarian (they think librarians only know of books), to others such as an outdated educational paradigm which doesn't encompass collaborative pedagogical practices, or even more die-hard ones related to the professional culture rooted on an individualist and solitary teaching. It is thus imperative to evolve to a more collaborative mindset, based on the interdependence of goals, and regarding teamwork as more effective teaching and learning techniques.

Over the past few years, on both political and organizational contexts, there has been a growing concern with enabling individuals for life-long learning, allowing for an easier integration of the individual on the so called information society - for example, in 2009, United States of America' president, Barack Obama, designated October as “National Information
Literacy Awareness Month” underlining that, “in addition to the basic skills of reading, writing, and arithmetic, it is equally important that our students are given the tools required to take advantage of the information available to them. The ability to seek, find, and decipher information can be applied to countless life decisions, whether financial, medical, educational, or technical.”

I believe that, overall, both disciplinary and librarian show concern for enabling their students to be included in such a society. However, there is arguably a lack of collaboration between both groups, hampering the optimization of the inclusion of informational abilities in the student formation.

**Problem definition**

The concept of Information Literacy developed and grew largely in response to the expanding variety of information formats that were available to students, many of which were becoming increasingly accessible beyond the walls of the library. In light of these alternative information sources, educators were discovering that teaching only with the traditional tools did not prepare students to use these new research tools effectively. Students could not select appropriate sources of information, did not understand the structure or purpose of different sources of information, and could not critically evaluate the information they retrieve.

Despite the traditional teaching tools, school remains the primary place for society’s changes. As Freire (2007) said, “it is particularly in schools where we have the greatest influential potential for change, resulting from the larger physical presence and intellectual availability of its population. It is also in schools where the greater concerns come together, and, in this physical space which stirs so many passions, an ample discussion comes to life encompassing all sectors of our society. This society believes it should walk the path of a so called information and knowledge society.”

These concerns are even more pressing now than in the past because the amount of information that students can access rapidly and easily is growing exponentially.

Therefore I purpose myself to answer this question: How is Information Literacy integrated in elementary school’s education?
Methodology
In order to answer my question, it is important to understand the main concepts involved in it; identify skills that must be involved in the learning process of an Information Literate student; name Information Literacy models that applied to the teaching process can accelerate/improve the Information Literacy student's competencies; discover which efforts are being developed in schools, between teachers and school librarians; find up to what extent is the school library being used to improve Information Literacy in students.

Theory

Literacy
Literacy has been often associated to reading and writing skills. In fact, the term «illiterate» almost always refers to one who does not possess such skills. However, the scope of this concept has undergone a broadening, along with the concept of reading itself. Besides, the emergence and expansion of media other than the printed paper has brought with it new concepts, such as audiovisual and computer literacy, among others.

Furthermore, authors like Scribler and Cole (1981:236), have long ago pointed out the extension of reading and writing skills to the real ability to put these skills into practice, by saying that “Literacy is not simply knowing how to read and write a given text but rather the application of this knowledge for specific purposes in specific contexts.”

Literacy has profound individual, social and economical implications. Previously illiterate individuals, when referring to literacy, often associate it with power, liberty and light (Bhola, 1997). As Strong (1998:36) suggested, —people who can’t read often feel lonely and incapable to relate. High literacy levels are associated today with employability and citizenship.

Information Literacy
A review of the literature on information literacy in Europe (Virkus, 2003) allowed for the establishment of the main trends for concept usage and discussion among the European authors. What’s more, Virkus identifies, in various works, the relationship between information literacy and libraries. This is namely done through the development of innovative concepts such as «user training», which was put into practice using several different methods, back in 1970-1980 in university libraries on the United Kingdom, Germany and Scandinavian countries. The growing attention that information literacy has been awarded for the past few years can, in part, be traced back to the exponential growth of the amount of available
information, as well as the growing dominance of digital media. Another important factor is arguably the increasing concern about student's learning and studying abilities, as well as lifelong learning. In other words, the ability to learn, instead of just acquiring raw knowledge, is being more valued these days. These factors are, according to Virkus (2003), the root of a pressing need to redesign the roles and responsibilities of library professionals.

Several organizations and authors have come forward with definitions of information literacy. One of the most commonly quoted is the one from the American Library Association, which states that “to be information literate, a person must be able to recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information.” (ALA, 1989). Many other definitions stem from this one, appending additional developments. A principle statement of the American Library Association (Association of College and Research Libraries, 2000) says that an information literate individual should be able to:

- determine the extension of his information needs;
- access the required information with efficacy and efficiency;
- critically evaluate the information and its sources;
- correctly incorporate the information so as to accomplish a specific goal;
- understand the economical, legal and social issues related to information usage, and accessing and using information in an ethical and legal fashion.

Information literacy is regarded as being socially and economically crucial for individuals as well as for citizenship (ALA, 1989; Correia, 2003). Its growing importance is also witnessed by the number of international entities and organizations which deal with and study information literacy, producing studies, reports and recommendations. Several European projects, such as EDUCATE and DEDICATE, have covered issues related to information literacy, and a number of countries have establish working groups and institutions, conferences and websites (Webber & Johnston, 2003), attempting to study and promote information literacy (Virkus, 2003).

**Learning process of an information literate student and main actors in the teaching process**

Students who are information literate must be able to learn in an autonomous way. They must be aware of their information needs and actively participate in the world of ideas. They must show confidence on their problem-solving abilities, and know which information is relevant. They must be able to deal with technological tools to access information and to communicate. They must be able to feel comfortable in situations requiring multiple answers, as well as those
for which there is no answer. Students who have information literacy skills must be flexible, capable of adapting to change, and to work both individually and in a group. The guidelines about information literacy assure that all students undergo a learning process which can transfer along programmatic contents, as well as into the real life. These guidelines specify the following:

- the student must build meaning from information;
- the student must create quality products;
- the student must study autonomously;
- the student must participate effectively as a member of a workgroup;
- the student must use information and information technologies in a responsible and ethical way.

The learning skills which can contribute to bring this philosophy to life are the following.

**Autonomous, self-centered learning skills**

These skills are paramount to the development of life-long learning individuals. Those who learn autonomously must be able to establish clear information goals, and manage their progression in attaining them.

They must be able to use media source for information and for their personal needs, look for answers to questions, consider alternative perspectives and evaluate different points of view. They must be able to ask for help, and recognize the organization and structure of a library. The librarian plays a role as a learning partner, guiding — not teaching — the students on their learning activities.

**Cooperation skills**

The school library is a place where individual differences are intertwined with the diversity of resources and technologies. When students work in groups, they learn to argue for their opinions, and criticize others in a constructive way. They contact with diverse ideas and show respect for others' personal histories and their own ways of learning. Besides, they help to create projects which reflect the differences between individuals and contribute to synthesize individual tasks into a final product. The librarian may act as a guide for the group, and support them as much as required in their usage of the library as a resource in their problem-solving activities.
Planning skills
Planning skills are an essential prerequisite for any research task, study, project, essay or theme. In the beginning stages of a learning process, activities such as brainstorming, posing the adequate questions, and identifying keywords demand both creativity and practice. A student with planning skills must be able to develop objectives, express the problems to be solved and elaborate working plans to use for such ends. The teacher and/or the librarian must be involved in the planning process, so as to be able to serve the students' interests as well as possible. It is expected that the teacher and/or the librarian are able to guide them on the usage of the available resources and the feasibility of any kind of task since the first moment of the work process.

Retrieval and gathering skills
Retrieving and gathering are fundamental skills that students must acquire in order to be able to look for information on the library autonomously. These skills include the understanding of alphabetical and numerical ordering, and the usage of different types of instruments for research on electronic databases and the Internet. Is is imperative to reinforce these retrieval skills. They need to be related to the curriculum context, and developed progressively inside each discipline's context. Exercising these skills should imply the usage of indexes, a vast variety of reference sources, and the whole gamut of information technology. A student who is able to master these skills can make use of all of them when working with different methods of information generation such as surveys, interviews, experiments, observation and study of sources. It should be conceived courses on retrieval and gathering skills, adapted to match the needs of individuals and groups. Its conception must be executed in cooperation between teachers and librarians. Educating these skills is arguably the most important part of the education of information users.

Selecting and valuing skills
Students need to develop critical thinking and valuing skills. Along with the aforementioned skills, these abilities are vital to attain optimal information retrieval results.

The programs conceived to promote such skills must include exercises like the following:

- posing of appropriate questions;
- identifying potential resources;
- using diverse strategies;
- establishing a reasonable agenda;
- making of ethical decisions.
The educators must be especially dedicated to guiding the students in finding relevant, up-to-date and valid information, and in the ways of detecting any prejudice or imprecision. It is necessary to consult a vast array of resources, compare them and valuate them in order to assure that the hypothesis and conclusions are rooted on a knowledge base as wide as possible. Competent students must be able to identify authority criteria, exhaustion, format and relevance, viewpoint, trust and chronology or actuality.

**Organizing and recording skills**

Traditional takes on the role of the library have frequently been limited to the retrieval and gathering of information. The subsequent organization and usage of this information hasn't been regarded the same way. However, in a school library, this part of the process is as important as the starting point. The librarian must support students on the development of these skills when they are working on projects and tasks of different courses. For this reason, the librarian must be an expert on the structural conventions of a project report, and must advise students on the best way to write titles, headers, chapters and references. Besides, skills such as elaborating summaries, abstracts and quotations, and the redaction of complete and rigorous bibliographies, must be developed in the library and guided by the librarian. Student with skills must be able to take notes, store information and prepare it for usage.

**Communication and realization skills**

Interpreting and using the information when working on projects and tasks of the different disciplines are two of the most hard to acquire learning skills. Through these skills, students show how, and if, they have a real understanding of the information they are providing. Transforming the gathered information on the knowledge of a concrete person is in effect a challenging activity. The skilled student must be able to process information in this fashion:

- integrate information of diverse sources;
- make inferences;
- draw conclusions;
- build meaning;
- establish connections with previous knowledge.

Besides, the skilled student must be able to:

- communicate clearly;
- reflect clear goals and criteria;
- demonstrate effective presentation skills.
Evaluation skills
The final stage of the learning process is the evaluation process and the final result. It's essential that students are able to produce critical thoughts about their effort and what they accomplished. This way, the skilled students must be able to:

- relate the final product with the original plan and determine whether the product has reached its goals;
- determine the strengths and weaknesses of the learning process;
- reflect on improvements and implications on future tasks.

Teachers and librarians should participate in the evaluation process together with the teachers, for two reasons. The first reason is to be informed on the way the library has acted to meet the students' needs. The second one is to be able to function as an active learning partner who can contribute to a clearer understanding of the relationship between the learning process and the final product.

Information Literacy Models
The literature suggests that work in the area of information literacy has been following down two paths which can be seen as separate, albeit their common issues: one is related to higher education, and the other is related to earlier stages of schooling. The focus of my work will be on the latter.

In the first case, the pioneer work developed by Marland (1981) has been a starting point for many teachers, researchers and librarians with an eye for information literacy, and it is still quoted and regarded as current in our time. This model stems from a set of nine questions placed by students while conduction research, to which nine answers are given in terms of skills or actions. This is frequently referred to as Marland’s «nine steps».

<table>
<thead>
<tr>
<th>Questions</th>
<th>Skills</th>
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<tbody>
<tr>
<td>1. What do I need to know?</td>
<td>Formulate and analyze your needs.</td>
</tr>
<tr>
<td>2. Where can I go?</td>
<td>Identify and evaluate probable sources.</td>
</tr>
<tr>
<td>3. How do I get to the information?</td>
<td>Identify and find specific resources.</td>
</tr>
<tr>
<td>4. Which resources should I use?</td>
<td>Examine, select and reject specific resources.</td>
</tr>
<tr>
<td>5. How do I use the resources?</td>
<td>Question the resources.</td>
</tr>
<tr>
<td>6. Of what parts should I keep record?</td>
<td>Record and organize the information.</td>
</tr>
<tr>
<td>7. Do I have the information I need?</td>
<td>Interpretation, analysis, synthesis, evaluation.</td>
</tr>
<tr>
<td>8. How will I present it?</td>
<td>Presentation, communication.</td>
</tr>
</tbody>
</table>
Another model, developed by Herring (1996), proposes the PLUS model. PLUS comes from the different stages proposed: Purpose, Location, Usage and Self-evaluation. This model stems from the applied research conducted on several schools throughout the United Kingdom.

In the United States, a model has been developed which became very popular and dynamized, visible through a large number of publications, products and training sessions. It presents six stages of the information literacy process:

1. Task definition
2. Information location strategies
3. Retrieval and access
4. Information usage
5. Synthesis
6. Evaluation

This model is called Big6, which constitutes a commercial brand (Eisenberg & Berkowitz, 2001). The dynamics of what can be called the information literacy movement, are suggested by the growing number of web pages of academic libraries across the world, which sport highlighted information on the subject, as well as supporting texts and tutorials. One example is the course of the library of the University of New Mexico (Ortiz, 2004). Another evidence of this expansion is the appearance of master and postgraduate courses on information literacy, just like the one offered by Charles Stuart University in Australia (Centre for Studies in Teacher Librarianship, 2001).

In the United Kingdom and Ireland, an association of academic and national libraries — the SCONUL — conducted some research and has established patterns for information literacy especially destined for higher education (Bainton, 2001). This model identifies seven main skills, defined as the competences required to:

- recognize the need for information;
- distinguish ways in which the lack of information can be addressed;
- build strategies to locate the information;
- locate and access the information;
- compare and evaluate the information obtained from several sources;
- order, apply and communicate information to others in an adequate fashion;
• synthesize and add to the existing information, contributing to the
• creation of new knowledge.

A much quoted information literacy model, and which seems to have had much influence in several countries, is Christiasne Bruce's, often referred to as «the seven faces of information literacy» (Bruce, 2002). This model results from research conducted in Australia and contemplates different perspectives and individual experiences on the quest for information, ranging from an «information technology conception» to a «wisdom conception».

| Category one: The information technology conception. | Information literacy is seen as using information technology for information retrieval and communication. |
| Category two: The information sources conception. | Information literacy is seen as finding information located in information sources. |
| Category three: The information process conception. | Information literacy is seen as an executing process. |
| Category four: The information control conception. | Information literacy is seen as controlling information. |
| Category five: The knowledge construction conception. | Information literacy is seen as building up a personal knowledge base in a new area of interest. |
| Category six: The knowledge extension conception. | Information literacy is seen as working with knowledge and personal perspectives adopted in such a way that novel insights are gained. |
| Category seven: The wisdom conception. | Information literacy is seen as using information wisely for the benefit of others. |

Table 2: Bruce (2002). Seven faces of information literacy.

Survey

In order to capture feedback of pragmatic nature, I elaborated a survey in which the participants were teachers and librarians of two elementary school in Amager, Copenhagen.

The main goal of conducting this survey was to understand the idea teachers and librarians have of their roles while educators of information literacy in elementary schools.
I choose elementary school educators (between 5th and 9th grade – when students are between 10/15 years old) because I believe this is a very important period of their students life, when students start being curious about the world/society around them, meaning they are also curious about the information that surrounds them. They have to be prepared to know how to choose, deal and organize all the information they will receive.

Using this survey, I expected to figure out whether the educators know and/or use any of the Information Literacy methods aforementioned, what importance they place on the role of the library in the context of the school as a whole, and which activities they develop in order to promote the relationship between the library and the classroom.

I intend to find out if, and how, teachers and school librarians create a wide collaboration network on the school space on their pedagogical practices.

**Qualitative Method**

“When the purpose of a research is to better understand psychoanalytical or cultural phenomena, quantitative research may not be able to offer a great deal of insight or depth. For these topics, qualitative research and analysis are often superior to qualitative research in providing useful knowledge for decision makers.” (Homer, 2007)

The Qualitative Method is used in many academic disciplines, more traditionally between the social sciences. It aims to gather an in-depth understanding of human behavior and the reasons that produce such behavior. In order to do that, it looks into the why and how of decision making, not just the what, when and where. Hence, smaller but focused samples are more often used, rather than large samples. Qualitative research produces information only on the particular cases studied and any more general conclusions are only hypotheses (informed guesses).

Since my idea with this survey was to have some insight into the efforts made by school educators to promote information literacy between its students, I used the qualitative method to elaborate the questions for it.

I conducted interviews with school educators (librarians and teachers) and recorded those interviews to later analyze them properly. My interviews featured open-answered questions so that the interviewees had the possibility to express their views on these matters with arbitrary detail. The results of this study were studied qualitatively, not only because the size of my sample was rather small but, most importantly, because a qualitative analysis is much more aligned with the goals I set for these interviews. I was looking for a correlation between the
theories exposed on the previous sections, and the results I got from the survey. My intention was to gather the results by processing the answers I got, and categorizing them into several disjoint entities, so that it became possible to relate each interviewee’s answer style to a particular concept shared with other interviewees.

Context of the sample
I choose Peter Lykke Skolen and Sankt Annae Skole due to their proximity to my school and residence. They are close to each other and, probably for that same reason, work with students whose social background is closely related. They have, however, very different buildings. Peter Lykke Skolen’s is a recent building with green areas and several playgrounds. Its library is located in the center of the school’s main corridor (which connects all the buildings of the school), that of course makes it very prominent and accessible for the school community. It has glass doors, inviting all school’s community to go in and enjoy what it has to offer. It’s an ample and well-lit space, where students and teachers can enjoy information on a vast collection build from many different supports (books, magazines, exhibitions, Internet, etc). It is a place for social and work time, with its work tables, computers, and its chill-out area.

This library is managed by a school librarian and, with the help of some teachers, is open during school hours.

The rest of the school’s building is constituted by four other units, each of them associated with a students learning level. These “units” have no doors between its classrooms, helping the free movement of students and ideas.

Sankt Annae Skole is a more traditional school building, with a main 4-floor building and with a connected kindergarten. It has a big play yard in the center and its library is located in the 4th floor. Its library is smaller than Peter Lykke Skollen’s library, and it is only open for part of the school hours. It is managed by Anne, a French teacher who took responsibility for the library. There are other teachers helping in the school library, one is even studying to become a librarian.

Although located in the 4th floor (which does not help a lot in terms of accessibility) it is always very crowded, especially during classes breaks. I was very surprised when I realized this due to the access “difficulties”, maybe this has to do with the 15 laptops they have to lend to students, making it possible for them to work and access the Internet anywhere inside the school premises.
Because of its limited physical space (one small room) it does not have a large variety of books, but it has a little of everything and books of very different and important subjects. When students or teachers need something that is not there, the school librarian contacts the public library and helps them get the material they need.

In my opinion, configuration and decoration of physical space play a very important role in the way education is achieved. It directly influences the predisposition of students to learn and interact with knowledge. This physical space should be designed in a way that maximizes the ease of learning and researching, while not overlooking the aspects of comfort and accessibility. This will enable students to remain at ease while contacting with information and make it easy for students to access the source of information.
Analysis

The objective of the survey was to get an idea of how teachers and school librarians understand their role as information literacy educators. How the concepts and methods previously mentioned are or not used in real life experiences. As said before, the issues of school support raises a number of troubling questions, like does school truly supports the information literacy instruction efforts made by librarians? Are they satisfied with the research capabilities of their students? Are teachers aware of how librarians could work with them to develop information literacy and critical thinking skills in their students? What factors affect their support for information literacy instruction— discipline, level of teaching, their own information-seeking habits?

In order to answer these questions, I interviewed 4 teachers and 1 school librarian from Peder Lykke Skolen and 3 teachers and 1 librarian from Sankt Annae Skole. The teachers interviewed encompass all the learning levels of the Elementary school (5th grade, where students are 10/11 years old, to 9th grade- 14/15 years old). Their answers can be found in Appendix B and C.

School educators and Information Literacy

When in my survey I asked the teachers and the school librarians about their knowledge of Information Literacy, and if in their opinion their students were information literates or if their classes/school library played any role in developing information literacy in students, I was expecting to understand if the school educators interviewed knew and understood the concept of Information Literacy and get an idea of theirs school’s dynamics.

Most of the teachers recognized the term Information Literacy, but could not exactly define it. I thus gave them a small definition of it in order to help them understand what I was going to ask them about. The definition presented was that “to be information literate, a person must be able to recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information” (ALA; 1989). On each interview, after my short definition of Information Literacy, I could tell that Information Literacy was being related exclusively to the Internet, or to libraries. Dorthe, an English teacher from Sankt Anne Skolen, associated almost all her answers during the interview, to research that her and her students do on the Internet. Another example is Rita, also an English teacher at Sankt Anne Skolen, that only related the concept to the research in libraries. (appendix C)
On the other hand, both the school librarians interviewed showed to be completely aware of the meaning of the concept, maybe because they read more about it when researching in order to improve their library and services, or maybe just because of their education background (although I should note that Anne, from Sankt Anne Skollen school, is just a regular teacher that became responsible for the library).

On the order hand, when asked about their opinion on whether students that attend their classes/library are information literate, both these educators gave a negative answer. They admitted that their students usually browse the Web, read and have contact with many different sources of information, like television, music, their community and family, etc. However, they both told me they thought this was not enough to make them information literate. Sarah, a 5th grade teacher from Peder Lykke Skolen, mentioned she suspected that her students were not prepared to deal with the huge amount of information that they have access to. She said “maybe their brain is not developed enough for so much information and they get confused and not always are able to find out which information is good and they can use”. I think she’s right, although in my opinion it is not a matter of whether the brain is developed enough or not, but if the children have been educated and made aware of the information world that surrounds them.

Sophie, teacher at Sankt Anne Skollen, also pointed out that the older the student gets, the more disinterested he becomes about information and the society that surrounds him. Probably this has to do with the fact that this is a very troublesome stage of the students life (10/15: adolescence) where they turn to be more focused in themselves and the changes occurring physically and psychology with them.

All teachers and school librarians interviewed were aware of how important they are in whether or not Information Literacy is introduced and exercised in the students’ daily school activities. They enumerated many different activities implemented in their classes and libraries in order to develop information literacy in their students, from special homework to camp trips to museums and libraries, to special classes about how to search, retrieve and information in the internet and in the library. Both the librarians interviewed even mentioned talks with authors/writers, organized in cooperation with the public library. These talks are where students can get to know what work is behind the making of a book, such as how the authors gather their information and ideas and how they turn those into books.

During the interviews, I did not ask the participants directly if they knew or used some of the Information Literacy Models mentioned before in the Methodology section, like Marlands 9
Steps or Big 6. This is because I was expecting that, when interviewing them about what was their classes/library role in developing Information Literacy on students, and which activities they organized and thought were the most relevant for that development, they would mention some models they knew or even some models named in my project. However, none of the teachers or the school librarians mentioned any of those in their class/library activities. This might be because they, especially the teachers, were not very familiar with the concept of Information Literacy. Another reason is they knowing some of the models but not relating them to the development of Information Literacy.

The role of the school library
With questions 4 and 5 of the teacher’s survey (appendix B) I asked the teachers what their perception of the school librarian’s role was, and how important they thought the school library was. I also asked them if they thought that a more accurate information seeking behavior from their students could benefit their classes.

Maya, a 7th grade teacher from Peder Lykke Skolen, said she “couldn’t even imagine a school without a library”. Sarah, a 5th grade teacher from the same school, was of the same opinion and stated that “it’s extremely important. The students need to know how to work with computers, that’s very important for their education”. All teachers agreed that the library was very important for theirs schools. However, they often related it to a computer room, where their students could go learn how to search the Internet and work with Microsoft Office (Rita and Dorthe from Sankt Anne Skolen).

Maybe due to the fact that the library from Sankt Anne Skolen is smaller, and they have around 15 laptops to lend, the teachers from this school tended to relate it more to computer education center than in Peder Lykke Skolen. Sarah, from the latter, although recognizing the libraries’ importance in educating the students on information technology, also mentioned that students “need to know how to work, how to use books, because they are still very important to their education” – she calls the library a “world of books”. Maya says that “not everything is about the Internet, and it’s still a gift to read a book... its good for the eyes, the shelves full of books”. School libraries provide the foundations for curricular education, and help to develop a more profound knowledge since they offer access to several relevant resources. As students, as well as the school staff, try to keep up with the volatile information technology medium, libraries can help them by staying up-to-date with the new ways to access, communicate and share information. They are, as Sarah pointed out, the “backbone”
of the schools, and should be permanently undergoing structural changes in order to reflect the world we live in and its values.

School libraries both emphasize the importance and fulfill the need of multiple resources, whether they are books, media, electronic documents, among others. Their offer should be able to be finely tailored to the particular educational needs of any individual. This can be achieved through a specific combination of resources, like working together with public libraries and public institutions (like the city hall) together with an adequate strategy to use their resources (access and loan of special books collections for example), and assemble it into a coherent knowledge base.

Finally, it is important to consider the school library as a common, equitable, and stable access to all, regardless of socio-economic status, and regardless of access to information technologies out of school (Todd, J. & Hay, L.). This is because their collection of resources, built in order to satisfy the informational needs of all the school community, is available to anyone. In the context of the library, all students are treated equally irrespectively of their backgrounds, and are endowed with the same rights for resource usage. This provides a common and unified learning framework where the equal opportunities paradigm reigns.

**Cooperation between school library and classroom**

Both Peter and Anne, the school librarians interviewed, mentioned being involved in the planning of the school years. This involves, for instance, giving ideas and information about books that the teachers could use in their classes, and what activities are happening on the city that could interest and help the teachers. Some of the activities mentioned before are organized with both the classroom and the library. Peter, Peder Lykke Skolen’s school librarian, said to be “involved in the planning of the school’s year”, looking into the teachers’ class plans and giving ideas and information about, for example, books they can use. The teachers interviewed from his school confirmed this. Heidi from Peder Lykke Skolen, for instance, stated that “we have meetings, and our librarian tells us about new things, new books, new ways of learning, and sometimes he makes some small courses about how to use some programs”.

The school librarians I talked to (Peter and Anne) understand the importance of the collaboration between the classroom and the library, and showed concern about keeping themselves and theirs libraries up-to-date, in order to be able to best help the rest of the school community. They understood how important their role was, as information literacy educators, and also recognized the extreme importance of this kind of literacy to students.
today. Peter (Peder Lykke Skolen school librarian) emphasized that to be information literate is extremely important in our society because it’s a way of reacting and taking part in our “kind of society” (democratic society).

All teachers surveyed were aware that working in a more close way with the school library would bring great advantages to their teaching methods, such as a better development and evaluation of students' skills in information literacy and knowledge in their classes; the improvement of their own knowledge and skills on the area of information technology; the learning about the matters that integrate the library collection and better ways to access it, making it also more accessible to their students; the knowledge of new and different educational and pedagogical methodologies. Unfortunately, as most of the teachers pointed out, the lack of time seems to be the great barrier to this partnership. Most of the teachers complained about the restrict timeline they have, to plan their lessons, teach and to integrate library related activities in their classes. They understood and welcomed the help of theirs school librarians to bring new activities and information to the students, and make their classes more interesting.

We can infer from the teachers' answers to the survey that they have a very important role in whether or not Information Literacy is introduced and exercised in the students' daily school activities. They are also responsible for the students' connection to the library and its activities. As so, it is very important that as responsible for ensuring the development of Information Literacy skills and integration of Information Literacy in Elementary school teaching, teachers work together with librarians to accomplish the following:

- developing, instructing and evaluating how students learn along their curriculum;
- developing and evaluating students' skills in information literacy and knowledge;
- developing plans for school activities;
- preparing and conducting reading programs and cultural events;
- integrating information technologies in the curriculum;
- explaining to the parents the relevance of the school library.

**Future Education**

It is important to underscore the importance of the notion of pedagogical fusion in this context. Pedagogical fusion means the intertwining of the roles of the teacher and the school librarian, a merger where skills and knowledge from both sides intersect and cooperate. This could be accomplished by some extra education to the teachers, about librarianship or even
about Information Literacy. Such courses especially built for teachers should instruct them clearly on the library's role on teaching and learning, and on the available support from the library's team. These courses should especially underline the practical formation on information retrieval related to the matters and subjects taught by the teachers. Through their own experiences in searching for relevant resources, teachers tend to develop a deeper understanding of how the library can complement the classroom work and be integrated in the curriculum. Everyone interviewed saw this fusion as very lucrative especially for the students. But they also enounced difficulties associated with it. As pointed out by teacher Maya, it is difficult for a teacher to study, get up-to-date and apply all the different areas (psychology, computer skills, information literacy, etc) so important to their classes, when planning and teaching them. It becomes a herculean task to integrate all these different areas of knowledge in their daily classes, because of the lack of time. As she said “it’s very difficult”, because “there’s no time or enough space for more education for the teachers”, so they “merge all the subjects together”, subjects like psychology, information literacy, creativity, etc.

So at least for now, the educators surveyed agreed that although very valuable, this pedagogical fusion is not their prior concern. It is important then, to push the school library to become the default place on the school to conduct research, experiment with information and, compare and contrast perspectives in order to fill this lack of pedagogical fusion and to make it become the common, central, flexible and open place they should be.

As Hay and Todd (Todd, J. & Hay, L.) put it, —providing the opportunity for teams engaging in pedagogical experimentation to access and use information and web tools to empower learning through creativity, discovery, inquiry, cooperation and collaboration. They help students to both understand and be able to easily be integrated on the information-heavy world beyond the school grounds. This happens because a school library, no matter how overwhelming in information, is a controlled environment where the student is assisted on dealing with it through the development of information literacy skills.

**Reflections about the analysis**

In times of transition, where gaps open up, or are perceived to open up, between the curricula of schools and the reflexive learning needs of society, pressure is placed on educators to transform themselves through innovative teaching strategies accompanied by the use of new technologies, the desirability of which has been established through the research of educational scientists. The cooperation between teachers and the school librarian is one of
those strategies and it is essential to optimize the potential of the scholar's library services and
Information Literacy education.

The pedagogical philosophy of teachers constitutes the ideological basis of their choice of
teaching methods. Some of the methods which stem from a traditional viewpoint of the
teacher and the school manuals as the most important assets don't favor the role of the library
in the learning process. If this perspective is associated with a strong desire to keep the
classroom door closed and to exert a strict control of the students' learning activities, the
library might just as well be banished from the teachers' minds as an important information
resource. Even if a number of teachers support this “banking educational ideology”, and thus
face the students as passive warehouses to be filled with their selected knowledge, it is still
important that the library finds its role as a support service related to the curriculum.
Fortunately, the teachers interviewed by me, show they are open-minded educators, feeling
open and happy to cooperate with their school librarians in order to improve their pedagogical
methods and also improve the students informational skills. A useful strategy to establish this
partnership in the aforementioned learning process could be to promote library services built
especially for teachers. This promotion should point out¹:

- the ability to provide resources so the teachers can widen their knowledge on the
  matters they teach, or improve their teaching methods;
- the ability to provide resources to help build different evaluation and grading
  strategies;
- the ability to become an active partner in planning classroom tasks;
- the ability to help teachers deal with heterogeneous situations in the classroom,
  devising special services for those who need the most support and stimulus;
- the library as a gateway to the global village through its interlibrary loans and
electronic network.

Teachers with a more progressive and open educational ideology, as the teachers
interviewed, are usually more library enthusiasts. Besides all functions and possibilities
described above, they can still integrate the library as a teaching space, staying afar from
more traditional teaching methods. To make students more active in the learning process,
and develop their autonomous learning skills, I think teachers can cooperate with the
library in areas such as:

¹ In: IFLA/UNESCO, School Library Guidelines. IFLA, 2002 available at
• information literacy, developing curiosity and educating students to be critical and creative information users (as an example, Sarah from Peder Lykke Skollen named some activities as brainstorming and use of keywords in order to improve the student’s critical and creative process);
• project work and theme studies (some applied in work groups, some in individual projects in order to choose sources where to look for valid information);
• real reading motivation with students of all levels, individually or as groups, (as the story-telling hour for example).

The teachers showed themselves open-minded for bigger cooperation with the school library. The school library is a service directed to all members of the school community, not only students and teachers, but also managers, administrative personnel and others, such as parents. All these groups require special communication and cooperation skills.

The main skills and competences required of the school library's team can be defined as follows:\(^2\):

• ability to communicate positively and with an open mind to children and adults;
• ability to understand the users' needs;
• ability to cooperate with individuals and groups inside and outside the school community;
• knowledge and understanding of cultural diversity;
• knowledge of the learning methodologies and educational and pedagogical theories;
• knowledge of the information literacy skills and of how to use the information;
• knowledge of the matters that integrate the library collection and the ways to access it;
• knowledge of literature, media, and child culture;
• knowledge and skills in the domains of management and marketing;
• knowledge and skills on the area of information technology.

Although the lack of time some of the teachers complained about, teachers showed interest in becoming instructed in Information Literacy. Such courses especially built for teachers should instruct them clearly on the library's role on teaching and learning, and on the available support from the library's team. These courses should especially underline the practical formation on information retrieval related to the matters and subjects taught by the teachers.

Through their own experiences in searching for relevant resources, teachers tend to develop a deeper understanding of how the library can complement the classroom work and be integrated in the curriculum.

I believe a number of catalyst measures can be taken in order to help the library play a larger role on the students’ curriculum, and to pursue the development of the aforementioned information literacy skills. Special classes could be designed in order to familiarize both students and teachers with search engines, introducing the concepts of source criticism, critical reading, cognitive authority and credibility. Retrieval and gathering skills, along with selecting and valuing skills are directly related to this topic and it is becoming increasingly relevant for library and information specialists to help users evaluate the sources of the information they collect. The quality of the information retrieved will directly influence the quality of any work produced using it: students must be trained to distinguish between fact and opinion, both when gathering information and when producing new content with the appropriate register and introduction for both factual and subjective data. As (Fitzgerald) puts it, “critical thinking is an important educational outcome for students”. If students are offered proper guidance on recognizing quality information, lesser valuable or reliable productions will eventually fall into oblivion, and information quality on society as a whole will be pushed forward given to high demand. Educating users and raising their awareness towards the importance of this topic can be done though the promotion of debates, formal presentations, teaching of source evaluation techniques, or even the distribution of something as simple as a self-help manual among all library users.

It is crucial to teach students to «seek friends while avoiding enemies». This concept relates to a sensible use of communication tools, such as the Internet, in order to shield users against erroneous and even potentially dangerous information. The open nature of the Internet makes it an excellent information source, but also a powerful incubator for mischief. Proper behavior protocol should be taught so students can use all communication mediums both efficiently and responsibly.

The creation of library or literary clubs could be a good strategy for the development of a library culture, effectively helping the library to be transformed from an information silo into a social place where people get to interact. I my idea, this should make the whole school community more involved with the library, which in turn becomes more able to cater to the community’s needs since it earns a greater presence on the school context. Different
approaches can be used in order to generate a greater student involvement, such as offering junior library positions, potentially rewarded with extra credits.
**Conclusion**

Complexity is, probably, the most pungent trait of modern times, tainted as they are by contradictions and uncertainties, by the lack of definition of problems and by the emergence of dilemmas (Morim, 2000). Schools are not immune to the influence of their supporting society, which means that the learning and teaching processes which take place are themselves covered in error, hesitation, paradox and perplexity. Society demands generate a growing pressure in schools, standing on a performativity paradigm (Ball, 2004;: 1116; 2002: 18) which demands from schools and teachers a performance which matches and justifies the investment that citizens are burdened with.

Information Literacy is an educational imperative. Its ultimate goal is for the students to develop the capability of both critically evaluating the information they encounter and of continuing to use the skills that they have acquired to confidently handle the new challenges that will confront them throughout their lives. Critical thinking skills and the capacity for lifelong learning are not viewed as skills that are related to specific disciplines, but are rather to seeking information independently of any particular discipline or endeavor. These basic objectives of information literacy are not new goals and the educators have, for a number of decades at least, recognized their importance.

This way, in order to satisfy the students’ needs the teachers’ needs and, more comprehensively, society needs, it is essential to start a more profound and extended cooperation between the school librarians and its teachers, fulfilling in that way some of the gaps existing in today’s education.

The goal of this study is to answer how Information Literacy instruction is integrated in elementary schools’ education.

I started by defining Information Literacy, naming some current models used to apply Information Literacy skills to school activities, and defining the learning process of a information literate student. I also interviewed some educators (teachers and school librarians) of two elementary schools from Amager, with the purpose of having some real-life experiences brought to my project and analyzed their answers.

Based in the aforementioned, I answer to my research question concluding that Information Literacy (the concept) is still very poorly known among teachers and because they’re the ones that have the major role in students education, information literacy is poorly integrated in students’ life. Also, usually teachers relate the concept only to the internet and information
technology. Library and its librarians are still much underestimated. In order to improve Information Literacy in elementary schools education educators should bet in a wider collaboration between teachers and school librarians, since they’re both responsible for ensuring the development of the needed skills in students.

School libraries have to have a stronger role in theirs students life. Although teachers are more involved in student development, due to the duration and amount of activities performed together, the school librarian can not be forgotten. Teachers should establish this communication (teachers- librarian, classroom-library) and one way of doing this could be to establish an Information Literacy class that would focus on the 8 stages of the Learning process of an Information Literate student and apply the Information Literacy Models mentioned in the methodology section. Here, teachers and librarians would work together in order to complement both their knowledge and in this way help the students achieve more and better Information Literacy skills.
References


Appendix A - Survey for School Librarians

1. Are you familiar with the concept of Information Literacy?
   a. What does it mean to you?
   b. (if the answer is negative, I will make a short introduction to Information Literacy- “to be information literate, a person must me able to recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information” (ALA; 1989)

With this first question I intend to understand how aware the school librarians are of the concept of information literacy.

2. In your opinion, are the pupils that attend your library information literates?
   a. What makes you say so?
   b. Why do you think that is?

This questions aims to capture the librarians’ opinions on the level of their students’ information literacy. Question 2a attempts to gather which indicators are more likely to be identified with a information literate behavior, since the librarian will be listing the factors that have led him or her to believe the students either are or are not information literate. Question 2b is oriented towards the genesis of information literacy, in the sense that it enquires the librarians on their views of which factors enabled (or not) their students’ ability to properly handle information.

3. Does the school library play any role in developing information literacy on students?
   a. (if yes) Which activities do you think are the most relevant?
   b. (if no) In your opinion, which activities could be implemented in order to play such a role?

4. Is there any cooperation between teachers and librarians in your school, in order to improve the development of information literacy on students?

These questions aim at a more specific understanding of this particular school’s dynamics on the development of information literacy, both on the context of the isolated library, and on a broader cooperation scenario where the library and classroom merge together in order to provide the best possible experience for students.

5. Do you believe it is necessary to educate the teachers on librarianship to help them to better prepare their students to look and retrieve information in libraries?
6. Do you think a course specifically dedicated to information literacy would be important?
   a. (if yes) What benefits would it bring to your students?
   b. (if no) Why not?

The purpose of these questions is to force the interviewees to look at another type of possible improvement, this time in the shape of specific courses instead of other potential promoted activities like the ones question 3 aims at. The fact that they propose additional education for both teachers and students will show either in which group the librarians’ feel that the most work has yet to be done, or which investment they believe that would be the most effective.
Appendix B: Survey to the Teachers

1. Are you familiar with the concept of Information Literacy?
   a. What does it mean to you?
   b. (if the answer is negative, I will make a short introduction to Information Literacy- “to be information literate, a person must be able to recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information” (ALA; 1989)

With this first question I intend to understand how aware the school teachers are of the concept of information literacy.

2. In your opinion, are the students that attend your class information literates?
   a. What makes you say so?
   b. Why do you think that is?

This question aims to capture the teachers’ opinions on the level of their students’ information literacy. Question 2a attempts to gather which indicators are more likely to be identified with a information literate behavior, since the teacher will be listing the factors that have led him or her to believe the students either are or are not information literate. Question 2b is oriented towards the genesis of information literacy, in the sense that it enquires the teachers on their views of which factors enabled (or not) their students’ ability to properly handle information.

3. Does your class play any role on developing information literacy on students?
   a. (if yes) Which activities do you think are the most relevant?
   b. (if no) In your opinion, which activities could be implemented in order to play such a role?

4. How do you think that a more accurate information seeking behavior from your students could benefit your classes and your students’ education? Why?

These questions aim to understand the classroom context in which the teachers are involved, and how Information Literacy relates to that context.

5. How important do you think having a school library is? What about the role of its librarians?
6. Is there any cooperation between teachers and librarians in your school, in order to improve the development of information literacy on students?

These questions aim at a more specific understanding of this particular school’s dynamics on the development of information literacy, both on the context of the classroom, and on a broader cooperation scenario where the classroom and library merge together in order to provide the best possible experience for students.

7. Do you believe it is necessary to educate the teachers on librarianship to help them to better prepare their students for research and retrieve information in libraries?

8. Do you think a course specifically dedicated to information literacy would be important?
   a. (if yes) What benefits would it bring to your students?
   b. (if no) Why not?

The purpose of these questions is to force the interviewees to look at another type of possible improvement, this time in the shape of specific courses instead of other potential promoted activities like the ones question 3 aims at. The fact that they propose additional education for both teachers and students will show either in which group the teachers’ feel that the most work has yet to be done, or which investment they believe that would be the most effective.
Appendix C: Answers to the survey

Peter - School Librarian at Peder Lykke Skolen
1. Yes, it means we have to teach our students this new way to get information and be part of the society; it’s a big task for us, to be part of this;
2. Yes, because we try to act as democracy and therefore they have to react, to take part to this kind of society; today you have to take part in the whole society not just your neighborhood, Copenhagen or Denmark (10 years ago this was enough), the whole society (Europe, the whole world).
3. What are their actions in the library, that make you say they are information literates? (doesn’t answer the question).
   We teach them directly here, in the library, seeking the internet, be careful about the internet, different kind of ways to find information in the internet;
   We have a special class to teach them this (4 times a year), and we also do it in a day-to-day basis. We try to help as much as possible, and to answer their questions every time they ask them.
   We organize some talking’s with Danish authors (for example) with the help of the public library, its important to the students to have some contact with authors, so they know the work and the face behind a book, and maybe even get enthusiastic by the idea of being a writer; we read for the youngest students;
4. It’s a school library, so therefore I’m involved in the planning of the school’s year. I seat with the teachers and look with them, into their class plans and I give some ideas and information about, for example, some books they can use, so the teachers are the most important collaboration partners for us.
5. Yes, I’m myself a teacher! I decided some years ago to take a course to become school librarian;
6. Yes, you have to teach them! In collaboration with teachers we do that.

Sarah - Teacher (10-11) at Peder Lykke Skolen
1. I don’t think so. I don’t think I know it. (apresentei o tema)
2. Hum, I don’t know… I think there’s too much information, they can’t, aren’t really good to pick the information they need. I think there’s too much information, if it was 20 years ago, no computers, it would be much easier. Maybe their brain is not developed enough for so much information and they get confused and not always are able to find out which information is good and they can use you know? But I think they are better to pick up information than children 20 years ago, because they have to do it anyway…
3. We try to teach how to pick information; we always try to find information in the “stuff” we are reading and categorize it, like making keywords… you know? I organize them in groups and we all talk about those ideas they got from the reading … it’s kinda of a brainstorming for little kids!! And we talk a lot about the Internet, and that they have to be aware that not all the information in the internet is useful and that they have to be careful with that. 3b) I really don’t know.
4. No.
5. It’s extremely important. The students need to know how to work with computers, that’s very important for their education. But they also need to know how to “work”, how to use books, because they are still very important in their education. How to find and use books, and the library is very good for that. It’s a “world of books”..backbone of our school... And it’s very good to have librarians, because they are always there to help and when I don’t know something (and I don’t understand a lot about libraries) they help the students for me.

6. Yes, there is. They (the librarians) are always making cultural things and making us aware of things going on, for example in the public library or in the neighborhood and making as go look for information outside the school walls.

7. I think it would be a good idea, so they know what to do when they go to a library. I would like to know how to do the best for my students.

8. Maybe if we had more time, but I think its more important to teach the teachers that so they can implement it in their classes.

Heidi - Teacher (11/12) at Peder Lykke Skolen

1. Yes, it means a lot to me, in this society you have to teach the pupils how to read, how to learn. In my Danish class I teach them how to look into a text (for example) in many different ways, so they have to learn how to retrieve information from a text before and after reading it.

2. They are preparing themselves to be information literate. They all have different backgrounds and its going to depend if their parents are reading, and if they are skill reading... they are in different places, but they are all preparing.

3. It depends in every pupil, but basically I like to prepare my students before reading, to prepare them to the issues; I make them do key words from the texts so they learn how to structure information from the texts, also rewrite a text (letters-articles).

4. We have to make them more critical and aware, cause they use the internet everyday, of course they are information literates, but not enough,

5. Its very important, although many students in this school don’t normally go to the library. We are very lucky to have a library here which is very modern and open-minded for new things and for the media. I think it is very, very important. It is also very important that, there is always someone there to help the students.

6. Yes, we have meetings, and our librarian tells us about new things, new books, new ways of learning, and sometimes he makes some small courses about how to use some programs...

7. Yes, it is very important... to all teachers of all subjects, because they have to teach the students how to search for information, how to read and get the necessary information from the text, from the document. You have to teach the students why they have to read the text, and some of the teachers don’t know that... they don’t teach us that in the “seminarium”. Anyway its part of the information literacy skills the life-long learning and teaching that to the teachers is very important because we have to always update our knowledge due to the ever changing society we live in.

8. Yes, it’s very important, because it’s the only way to live in our society. You cannot live in our society not knowing how to seek information.
Maya - Teacher (12-13) at Peder Lykke Skollen
1. No, actually I never considered it. (apresentei o termo)
2. I guess its our primary job to make them aware of they seek, and make them become critical about what they read, because nowadays everyone think you can just google it and have the right information at first. Actually students have to be aware of their source and that’s what we try to make them aware of. I think they are aware of that... in this level (6th grade) we have a class where we give them a kind of computer lesson, where we taught them how to seek and be critical about information.
3. Reading a piece of literature, students read a lot and become critical towards what they read.
4. No.
5. I couldn’t even imagine a school without a library, and not everything is about the internet, and its still a gift to read a book... its good for the eyes, the shelves full of book. In this school we have very progressive librarians, they inform us of the offers that the city gives us, and that is very important because we, teachers, don’t have time for that. We teachers are bad implementing the library in our classes. Sometimes we just use it as the place where we switch books, so that’s why they are being developed big libraries, pedagogical centers as they call it in Denmark, where computers are applied, trying to expand the library.
6. There’s a big cooperation between teachers and librarians in this school... the problem is that there isn’t enough time to apply all the activities suggested by the librarians.
7. Its very difficult, because we have to think about so many different things when we are planning our classes, psychology and stuff... there’s no time or enough space for more education for the teachers... we kinda of merge all the subjects.
8. We have that, in the public library (although the teachers that went there, said it was totally a waist of time, cause the people given it were not prepared to deal with the kids and get their attention). Although very relevant, I think that class is going to be too empty, it has to be attached to some other subject... it is better integrated in other classes.

Anne- School Librarian at Sankt Anne Skollen
1. No. (I read the introduction to Information literacy from ALA).
2. Well, this is a process and we are trying to let them be it, but at the beginning they’re not. But I think it’s a natural thing for children to be curious, so they ask a lot of questions.
In the Library we have the experience, we have the literature and we have the knowledge, and I think a lot of children, they enjoy the literature, the stories that, hum... specially the boys, they have a lot of questions and a great curiosity from the beginning, but I think there’s a difference between boys and girls and I think perhaps some girls are more able to find the information quicker and easier, but perhaps the boys think more, hum, in a different way, and sometimes they find that information quicker but it depends on the age I think...
You see at 10, the 5th grade, with us in the school, I think the children are, they are some kind of scientists in the school, and they are some sort of craftsman, you know what I mean? I really think it is an exciting age for children because they know a lot of
stuff and they know how to do things, they are very literate at that age, both girls and boys!
There is some tendency for some children; I have some 9th grades you know? Even though they are very, very much teenagers, they are able to study and go very hard (…) so it depends from class to class I think...

3. I hope so, surely! We have some sort of classes? Hum, courses, you know what I mean? we receive groups of classes, not only for just running around finding books, but for education, to educate them, we have something about second class, we call that some sort of, hum sort of “small users” of the library- now I know where to go, where to find and distinguish between different sort of books, what’s an author?, what’s a title?, how long can I have the books?, and how do I use the computers?, how do I prolong the lend (I don’t know if that’s the way to say it)…. And then later on, on 4th grade we have some class, where they can learn about reading facts literature, special terms, special how to navigate in that sort of literature, and particularly the children that have two languages, bilanguage, bilingual… find it often difficult to read. So they profit a lot from that thing, and then we send them to the public library before they do something called “projekto”, that’s a work where they choose a subject for themselves and for a week just study, study, study and then present after a week… and some bilingual children don’t even know where to find the public library, because their parents don’t use it… so it’s a good thing that we visit that, earlier… We are preparing sort of a workshop, next year, and we had it two years ago, where we focus on literature and all classes in Danish they work with a author or a literature chapter and they present it one afternoon, and the parents come and… I think… Humm, but that’s with normal literature, it isn’t just learning is also the experience of good literature that is in focus…

4. All the time, I think… I hope!!! Hum, each year in May, the month of May we have a big meeting, where the teachers of Danish come to us, and we make a exhibition with all the literature they can use for the next years plans (plans of the year) and then we call it deliverance, it means if you have 5th grade this year, you can say particularly “this theme, or this subject was interesting and I made this exercises, and you can use that”, or we present what we do as a teacher and everyone talks together. When we buy new stuff, we present it and ask What do you plan to do next year?, can we buy more stuff… we also try to be, hum, to innovate, to bring ideas to new teachers, or to teachers that are not used to classes of certain grades, hum, how can they do, because I used to teach Danish for 15 years, and so does my colleague and so they can hear from us, “this is a great book” or something….

5. Hum, well, perhaps some, but I must admit that some teachers are better in computers than I am, so they are very, very, hum, they have great skills in finding information, better than me sometimes, but I have other colleagues who really don’t and it’s a pity for them and theirs students… so it’s a great mélange of abilities in a staff like us.

6. Yes, I think it will tell the teachers how to do it. For students would be very useful.. I think it very interesting if you could do that… I never thought of it, but perhaps it would be a good idea, to focus on it, to really give them abilities to use that … Well yes, I think the last thing you said would be good!
Dorthe - Teacher (13/14) at Sankt Anne Skollen

1. Of Information?? Nop. (I explained the concept)

2. Nop, some are, but not all. I teach 9th grade and I think some of them are really able to find information in the internet or the library, but mostly the internet, when they need it ... but younger students are not, but they learn, some learn, not all!

3. My class? The way I teach? Ok...I teach Biology, and English and Science and we spend time learning about the computers, and in English they are going to make, have to figure it out how to search in the computer and to find things that are not to difficult for them, or that are to loaded, I mean could be racist or something... they have to pick out the ones they need.. hum..

4. Yes, my next lesson, I’m going to use Google translator, because we don’t have... hum, usually I prefer the dictionary, online dictionary, but we don’t have it so Google Translator is the cheapest way right now, to use the computer, hum.. and we are going to make a project about endangered animals, and we are going to look in the internet, pick out the things they can understand...

5. A lot, I think.... They will get better in searching the internet and improve their knowledge of language, English for example, you can spend a million hours searching the internet without getting anything out of it, so it’s really important that they know how to use it.

6. It’s really important. The library up here I use it to book the computers, the computers up there, did you saw that?, and in English we have two or three shelves with English books, where they can pick something for the reading they prefer, and I’m using outside school, that is another library, that is common for all the Copenhagen Schools, you might know about it, I don’t know, have you seen this? (showing me the website in her personal laptop) it’s a library which where you can book for example materials like this (showing me some Nelson Mandela books) we don’t have this here so I’m booking it because I want to teach my students about South Africa and Nelson Mandela, and this are different books they can read, maybe give book reports about it afterwards, and we don’t have this kind of books in our school library and it gives me the possibility to give them to the students, once in while, when I book this and... let me see... here (showing the website) I can borrow different things... I just search Copenhagen I can find a lot a things I can’t find in the library up here. I can use this, but the students can’t use this, so I’m going to book some books and DVD’s ... it kinda of fulfills what is missing here.

7. Anna she’s the librarian, she’s also a French teacher, she’s also a bit interested in English books, that’s her job up there, but I think my students first graders and second graders they go up there and they read to them, they probably told you about that. In my 9th grade I don’t use them that often, I mean, they’re usually able to find books on their own... the old students...

8. Hum, yes, but we also have a media center, with two teachers I think, that we can book to come and give your students lessons and I don’t know... Excel or Word, or searching the internet, so it’s kind of a media center, the library and the media people working together. Maybe Anne told you, but once in a while we have a project and the
students make books or different things, they write novels or poetry and they have this kind of exhibition, we did that last year I think, but is not every year... I think we do it once in a while...

9. Educate them?? Maybe, yes... When My students have to take their exams in the summer, I tell them what to read but they also have to find other pages on their own, hum, and in order not to use everything that they find in Wikipedia we have to teach them how to find something else, or maybe to guide them... and that means giving them books that we have here for example.

We are not educated in that way, but since we use the internet a lot on our own, at least I do, I think I know a lot, but it might be useful if we had some more, more than one, about this... one of librarians, Laura, I don’t think you met her, she’s studying to become a librarian, and the way you study to be a librarian nowadays is very different from ten years ago and she talks about that maybe in ten years all the books are not here anymore, you need to find all the books in the internet... so of course it is important.... It would be nice that all the teachers would have some kind of course on how, how to figure it out how to use the internet, but the mighty problem here is also that whatever resources you have to find in the internet some are for free but most of it, the useful things you have to pay for them, and that’s the big problem here, we just don’t have the money to buy all the resources...

10. I think it would be important, yes! It would be nice if we could give them that, we try to teach them different things in 5th and 6th grade, at beginning they just learn how to type and then how to use word and excel but also how to search the internet... but you might have to repeat it every year...

Rita - Teacher (12/13) at Sankt Anne Skollen

1. Of ?? Hum...No... (I presented the concept)
2. Yes, hum, I have a 7th grade and we attend the library once a week... and they usually ask the librarian for a book when they can’t find it themselves.
3. I think they sometimes read books aloud for students, once a week we go to the library and the librarian reads aloud, and I pick easy books for them, and they have to read two books a week.
4. I think it’s ok, the way it is right now...
5. Very important, it isn’t just a library, we call it a computer center, because we can borrow the computers, the cameras and of course lot of books, so it’s very important.
6. I think it’s very important they are well educated, and we have three librarians and they are well educated all of them, so very important...
7. Yes, we have a meeting once a month where the librarians talk about new books and up-coming events, and we can always approach them in our breaks about books about specific topics, animals, Australia... so they help us a lot.
8. Yes, I think is very important we both educate teachers and the librarians, we need to be well informed so we can teach the children better...
9. I think that in some grades we can ask the librarians to teach them some things about literature, and sometimes we have an author to come to the school and talk to the students about their work.

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Sophie - Teacher (13-14) at Sankt Anne Skollen

1. Yes, it’s hard to explain it. I would rather you introduce it to me.
2. Not really, some of them are, but not all of them. In this age they are more interested in themselves, then about information. The boys like to navigate in the internet, and movies, but the girls just care about their appearance. They don’t even care about the people around them, there’s a lot of students from other countries in this school, and they don’t even have the curiosity to ask about this different countries (n perg.4)
3. I tell them to go to the internet, to search for information for the class and to do their homework.
4. I’m quite old school, and I think you have to know something about the world around you.
5. Its very important, but they go to the library mainly because the teachers tell them to go there. Most of them come from families that don’t read and its very difficult to break that habit. The older they get, the more disinterested they become about books and information. (books are made to teachers)
6. Yes, they help us finding books and materials to our projects, they gave us advice what books to use to our activities. They are very active, they make reading classes, reading groups, they make exhibitions... they read once a week to the youngers, to make them more interested in books.
7. Of course, if you want to rightfully advice your students. But I guess that if you have a good librarian like we have, then its not so important.. you can just go to him and he will help you. I think its important to know how to find books, but if you have a librarian... mainly their paper is about books, because we have a group of teachers that take care of the computer classes.
8. That’s already integrated in our classes, we have to teach them in every stage of their learning how to get information.