Introduction

We start with the information society of today and tomorrow. What changes will this demand from the librarian as an information professional and consequently from education in library and information science? We claim that the science of pedagogy should constitute a part of the new education of librarians. We consider pedagogy as an investment to bridge gaps between:

- the library as an institution and other institutions, especially educational institutions;
- professionals in the library and in other institutions; and
- librarians as information professionals and the user.

What can a pedagogic investment contribute? There are different aspects to discuss, partly depending on what kind of library we have in mind: public library, university and research library or school library. Within the framework of this paper there is only space to touch on some aspects in order to be able to go deeper into other aspects. This means we have limited the main part of the paper, Parts 2 and 3 to pedagogy for school libraries.

Part 1

Pedagogic investment in the education of library and information science: some broad perspectives

In her thesis, *The library as an arena for learning and the librarian as educator (pedagogue)* (Biblioteket som læringsarena med bibliotekaren som pedagog), Sætre (2002) used a table of three layers to structure pedagogy as a field of science (after Rørvik, 1998). The content of the first layer takes the broadest perspective on pedagogy: normative premises/terms. Pedagogy has developed concepts to discuss epistemological questions, ontological questions (what is man), different perspectives on society, and ethics. The second layer, descriptive knowledge, depends on normative terms. In Rørvik's (1998) model, descriptive knowledge is about theory, research
and experiences sorted in the following disciplines.

- Pedagogical psychology;
- Pedagogical sociology;
- Pedagogical philosophy;
- Pedagogical history;
- Didactics.

The knowledge within each discipline can be divided into many sub-disciplines, which may, depending on the kind of library, be of interest for the education of librarians.

Developing a descriptive knowledge in the above disciplines gives a conceptual framework for reflecting and discussing the role of libraries and librarians in society, ethics in the profession and how to interact with users. The discipline of most interest for this paper is didactics, which will be described and discussed in Part 2.

The third layer in the table is practice. The content here is advice and guidance on the basis of normative terms and descriptive knowledge in layers 1 and 2. All the layers may be seen as interacting parts and as interacting parts with individuals or group of individuals. Setre (2002) believes that the strategic thinking presented in the table can serve as a fruitful point of departure for analyzing and evaluating practice. It can be useful to discuss how the content of a discipline in pedagogy for libraries may develop; how to develop new approaches to practice. Setre claims that by going from the normative terms via the descriptive knowledge of the field of pedagogy, the consciousness of thinking and acting may be stronger and more professional.

This introduction to the broad and fundamental questions in pedagogy indicates, we hope, the relevance of the field for other students than those trained to be teachers or school librarians. We also hope that the further presentation of pedagogy, focusing on didactics, will be of interest to all kinds of librarians.

Part 2

In this part we will look into examples of visions and reality for school libraries and students as users in Norway. From there we launch into the discipline of didactics and user education.

The school library in the Norwegian school system – visions and reality

In the national curriculum for the 13 years of schooling, the school library is said to have a central place in education. It serves as “...centres of cultural activity and sources of information and materials” (The Curriculum for the 10 Years Compulsory School, 1997, p. 78). Furthermore it is meant to promote the students' own working habits, the pleasure of reading and to be a place where the students can “...actively learn how to seek information from a variety of sources” (The Curriculum for the 10 Years Compulsory School, 1997, p. 78).

These are the ideals. What about the reality from the students as users perspective?

In Rafste's (2001) research work on how students in senior high school use and experience the value of the school library, the reality has been investigated. One of the findings was that most of the students used the library very rarely. There was a small group of students that used it often, and more for recreational and social reasons than for educational.

On the other hand, when doing a project, most students used the school library, but the school librarian was never involved in the project in cooperation with the teachers.

Questions from the students and teachers were more incidental. The teachers in the study rarely referred to students the school library as a useful or interesting place to search for sources for their work. The school library was more or less running its own and parallel life to the classroom life of the teacher and student. Rafste concludes that the main reason for the neglect of the school library as an integral part of project work is the organisation of education with regard to time and space.

But she also points to further reasons; one, which will be explored in this paper, being the way that school librarians practice their pedagogic function.

There was little or no organised training in how to use the material in the library during project work. The user education organized for each class was one lesson of 45 min in 3 years. Except for this, the interaction between the student and school librarian was occasionally/incidental, on the initiative of the student or the teacher, and had more character of a product approach than a process approach.
Bridging gaps – pedagogical investment

Elisabeth T. Rafste and Tove P. Sætre

(Kuhlthau, 1993). We will look at two examples from Rafste’s dissertation to illuminate this issue: how students evaluate the school librarians’ part in their learning:

Rudi, a clever male student in his last year of high school:

...the librarian – is fantastic. She is absolutely marvellous. My relationship to her is very good. And – you know – I remember I had some work in spoken Norwegian the other day, and when I arrived at the library I told her: My – now I really need information on – I don’t remember what it was on – but anyway – she searched for me and dived into it at the spot, and left – she was in the middle of something else – and she found different material for me, and I went through it and managed to do a perfect job! Really – I wish her all good – she helps me to find my way on the Internet and helps finding addresses – and believe me – a competent librarian – that’s the top – that’s better than anything!

Rudi gets what he wants by doing as little as possible, and confesses he never finds his way around the library. He does not know anything about searching and the school librarian does not question this.

Rita, a bright student in her first year in senior high school, has few experiences with the school librarian:

Researcher: The school librarian – what does she mean to you when you are in the library? Rita: I have hardly spoken to her [snickering??]. I don’t really know – I don’t think she does that much [hesitating]. Of course, I am sure she does, but I have never had – well – when we had a project on different jobs/professions – because then she was there – for us – because then she knew we would need a lot of help – but otherwise – she sits in her office over there...

The school librarian is not visible enough, especially not for the novices of the first year. But there are “not-so-clever” students, not only in their first years, but in their third year as well, who feel that the threshold to the school librarian’s office is too high. Many of these students will also be bewildered as to what and how to ask the school librarian about their task (Rafste, 2001).

Research shows that the school librarian found the pedagogical function of their role confusing, and some even denied having a pedagogical role (Donham van Deusen, 1996; Gloppe, 1992; Rafste, 2001). Sætre (2002) claims that librarians in general have a lack of knowledge, attitudes and skills in the field of pedagogy. She also states that pedagogy for librarians is a neglected field in library education. This is, however, nothing special for Norway. In Sætre’s comparative research work on four different schools of library and information science, Sweden and England included, she found that pedagogy for libraries was rarely made a matter of interest.

From this presentation of research into the reality of school library use and training, we move to the field of didactics to see how an investment in this discipline can bridge the gap between the school librarian and users.

Part 3

Didactics as a pedagogic investment to develop the pedagogical function of the school librarian in user education

In Sætre’s (2002) thesis, didactics and curriculum theory constitute her point of departure, as well as the framework for her research, when studying the library as an arena for learning and the librarian as educator. What do we mean by didactics? There are many ways of defining didactics and make it part of pedagogy. Sætre uses the concept broadly: questions on planning, practising and evaluating education, and giving reasons for this. The field has developed valuable concepts to discuss and reflect on teaching and learning. Some of these are the six didactic categories to be considered when planning for education:

1. objectives/the purpose of education;
2. themes, subject matter/the content of the education;
3. methods;
4. frameworks the education takes place within;
5. student/teacher potential; and
6. evaluation of the education. (Gundem, 1990)

We would like to add that context also is an important concept to consider in the didactic field: the social setting the education takes place in, and which will give “life” to it.

To fill these concepts with meaning, knowledge of the parallel disciplines of didactics mentioned in Part 1, e.g. pedagogical psychology, -sociology and -philosophy is
necessary. To make the interactions and dynamics between the different aspects of didactics more apparent, we will present a model well known to teachers, the didactic triangle of practice (Lovlie, 1974) (Figure 1).

This model is meant to show how and why the interaction between the theory and practice is important for development as an educator. Sætre (2002) applies the model to libraries, and claims that it is an effective way of illuminating the relationship between theory and practice in didactics.

The P1 level is the lesson or tutoring the librarians give to help the student learn. This may be an introduction to a group of students on how to use the catalogue. They are in a setting where there is no room for reflection, only action, on the background of planning the lesson and the “backbone” reflections.

The P2 level is where planning and evaluation of the lesson is going on. Reflections based on normative attitudes to the teaching or tutoring, and on relevant theory is meant to be active now. At this level the reflections and discussions may be within the librarian herself, between librarians or between librarians and classroom teachers.

At the P3 level the didactic reflections are more principle. Sætre (2002:162) gives examples of reflections like “What is a library? What objectives does it have? How does it fulfill its mandate/authorisation. The question of ethics is implied here.

An aspect that Lovlie does not consider for this level of abstraction is competence in using pedagogical concepts for reflection. We would like to add this aspect to the P3 level as we believe that to master the use of the concepts of a discipline is a condition for acting as a professional (Dale, 2001).

![Figure 1 The pedagogical triangle of practice](source: Lovlie (1974))

Sætre concludes that the triangle of practise will be useful for librarians, and contribute to increased consciousness in the librarians roles as pedagogues. It is a model for reflecting that can bridge gaps between institutions, librarians and librarians and users.

**Learning theories as a pedagogic investment to bridge gaps between school librarians and users**

From the perspective of a pedagogic investment in the education of librarians in general, and school librarians in particular, it is important to discuss if there are areas of the didactic field which are more crucial than others. A framework of basic concepts like those presented earlier will be useful for developing an understanding of what pedagogical tasks are. Fundamental to planning, practising and evaluating lessons, and that means fundamental to didactics, is the knowledge of how students of different ages and abilities learn. This is the background for focusing on learning theory as a crucial part of didactics.

There are different perspectives on learning, and research on learning. The aim of this presentation is neither to go into any depths of learning theories nor to give an overview of what theories there are. Let us only state that there is not a learning theory for all students, situations and contexts. We need the behaviouristic theory, focusing on information as “given” and on the product or response students come out with on the basis of this stimulus (cp. instructions in library search, in using the computer). And we need the different kinds of cognitive theories focusing on the inner processes of the students. In these theories meaning is crucial. No one can understand without catching the meaning of the text. Furthermore, we need the socio-cultural learning theories focusing on the meaning created from the social and cultural context the student operates within.

Why is knowledge of learning theories so useful for librarians? These theories can, for example, tell something about:

- the optimal conditions for learning; and
- the varied potentials in students leading to differentiation in planning for their lessons, and differentiation in instructing and guiding.
For the development of user education, a current issue for school librarians when the curriculum asks for more active students, learning theory will thus be important.

Starting from the two quotes of students in Rafste’s research work, introduced in part one, Rudi, the third year student, could not find his way in the library on his own. He relied totally on the school librarian. One lesson on how to use the library in the first year of senior high school cannot result in learning anything on how to find one’s way around and how to search in a catalogue. Research provides the optimum conditions for learning to search, and seeking for texts in the library must be closely integrated with the topics the students are working on. Further – students have different experiences and different potential. Thus they often need to have both instruction and guidance throughout the information-seeking process. Learning theories can form the basis for didactic reflections and thus for an improved practice.

**Guidance and instruction**

Interaction with students in their learning process is, as we see it, the most important part of the librarian’s pedagogical role. Tutoring, guiding, coaching, instruction – there are many words to choose among – but they have slightly different meanings. We understand learning as a process, and consequently guiding the students as a process too. The aim according to the national curriculum is to educate the students towards information literacy and to develop deeper knowledge of the broad curriculum. Giving the student what they ask for, or what we as librarians think they ask for, is not guiding. Our Rudi did not learn how to search for sources from the way the librarian acted. But he did of course learn something about how to flatter a person to make her work for you.

Rita, in the first year of senior high school, did not often use either the school library or ask the school librarian for help. This was to a great extent due to the way work in class was organised, but there are reasons to believe that a visible and approachable librarian opens up opportunities for useful and necessary interactions, especially for the first year (Donham van Deusen, 1996; Rafste, 2001).

We would like to present three perspectives to guidance and instruction, based on the socio-cultural learning theory (Rafste, 2001). The dialogue as form and content in the student-librarian interaction is superior to them all:

- guiding and instructing through the zone of proximal development;
- guiding and instructing through modelling;
- guiding and instructing in metacognition.

It would be beyond the limit of this paper to go into these perspectives in detail, but we want to point out the essence of each of them.

In dialogue it is important for the librarian to take the student’s perspective; to build a dialogue on what the student says, not what the librarian thinks should be said. There is a time for presenting another viewpoint, to sharpen the student’s way of thinking. It is in the tension and confrontation of different voices that new insight and understanding comes (Rommetveit, 1996).

The librarian must also give time to listen to what the students are trying to say or ask for.

The zone of proximal development indicates that learning takes place in the space between what the students already master on their own, and what they can master when helped by someone more knowledgeable.

The librarian can – in different ways – be the students “crutches” or scaffold until they can throw these supports away and walk alone.

Guiding and instructing through modelling implies how the librarian can guide students by unveiling their own way of thinking and planning on a task given. How would they start planning to search in texts etc.

Guiding and instructing metacognitively means interacting with the students by giving them strategies to follow through their learning process, e.g. how to be aware of what they already know, and what an expert knows, how to finish project work, what difficulties most students face in the process of evaluating different sources etc.

Concluding this main part on learning theories, we hope to have made clear what an investment this area of didactics can mean for developing the pedagogical function of the school librarian in particular, and librarians in general.
Part 4

In the last part of the paper we will give two examples of how our respective studies in school librarianship and in librarianship in general, are trying to integrate pedagogy into the curriculum.

Agder university college – an example from the education of school librarians

School Library Information 1 is a three-semester 30-credit course, as is School Library Information 2 – specializing in literature and media. These are optional courses in the teacher training programme, and may serve as continuing education for teachers. The 30 credit courses are also offered as distance learning courses on the Internet.

School Library Information 1 is divided into the following three main parts, each ten credits.
(1) The school library in the learning environment of the school;
(2) Library science;
(3) Literature and media.

In part 3, Literature and media, subject specific didactics is the core. But it is in Part 1, the school library in the learning environment of the school, that we have invested in general pedagogy. All the three layers which structure pedagogy as a scientific field, given in Part 1, are more or less – dealt with in this part of the study. The normative premises we introduce and discuss are epistemological questions and ontological questions (what is man). What knowledge do man and society need, how do they learn this knowledge? These questions link to the next layer, the descriptive knowledge. We go into school library history and didactics in particular, focusing on learning theories and tutoring as part of that. We might also go into philosophy, to give a better overview of our thoughts about librarianship and education today. The third layer – practised against the background of the other two layers, is carried out through planning, practising and evaluating lessons where the school library is integrated in with a topic or subject from the curriculum, by visits to school libraries and by doing project work.

Have we managed to contribute to bridging gaps by investing in pedagogy the way described above? We believe we are on our way, but there are always aspects we have to do better, e.g. the students’ practising of user education: guidance in search for information, and the pedagogical use of the Internet.

Bergen university college – an example from the education of librarians

Library, Documentation, Information is the name of a new course for librarians just started this autumn at Bergen University College. The vision of the course is to contribute to an education where libraries are seen as attractive and professional arenas for learning. That is libraries with a visible and pedagogical profile, adjusted for the users of the libraries. The curriculum plan is based on Sætre’s thesis, The library as an arena for learning and the librarian as educator (pedagogue), referred throughout this paper.

The study consists of a mandatory part, and five different optional parts, building up to a Bachelor’s Degree (BA). The mandatory part makes up 60 credits and consists of more or less traditional subjects, the organising of knowledge being its core. The overall perspective in the course is to understand libraries in social settings. Communication is an important part of the course as well.

The optional parts of the education make up 30 credits each. The options are:
• knowledge organisation,
• organisation and leadership,
• library as an arena for learning,
• children, youth and media, and
• IKT in cultural disciplines and in research work

In this paper, we stop at the third option:
Library as an arena for learning. This is the course where pedagogy is the core discipline. Pedagogy in general, and instruction and guidance in particular, have the focus on “Lifelong learning” with the library as a core component discussed from a pedagogical perspective.

The curriculum plan for the “Bergen library study” has a profound pedagogical profile. We think this is an investment that may bridge gaps between institutions, professionals and professionals and users. It is too new,
however, to tell us anything about practise. It will be interesting to follow the development of the course and see what education will mean to the development of libraries in Norway.

Conclusion

We have drawn some pedagogical lines for education in library and information studies. We have drawn attention to didactics as a discipline can contribute to the education of future librarians. To have a framework of concepts as the basis of reflection and discussion will sharpen the consciousness of librarians towards their pedagogical function. The framework of concepts and reflections will open up dialogues between teachers and librarians. There are more ways to approach an investment in pedagogy to bridge gaps between the library as an institution and other institutions, especially educational institutions between professionals in the library and in the other institutions between librarians as information professionals and the user. We have stressed didactics as one sort of investment, and hope that our contribution will play a part in the discussion about restructuring library and information studies.

References


Donham van Deusen, J. (1996), "The school library media specialist as a member of the teaching team, "insider" and "outsider"", Journal of Curriculum and Supervision.


Gundem, B.B. (1990), Skolens oppgave og innhold. En studiebok i didaktikk, Universitetsforlaget, Oslo.


The Curriculum for the 10 Years Compulsory School (1997), Oslo.