Access to Knowledge as a Social Practice: Information Literacy Education for MA Students

Maria-Carme Torras i Calvo
Library Director
Bergen University College Library, Norway

Introduction

Rapid technological developments as well as changing trends in scholarly publishing and communication have made student’s access to and interaction with scientific knowledge a complex and often overwhelming experience. In the words of a first term Master of Arts (hereafter MA) student: “The difficult thing is to find just what you need, and not thousands of articles about completely irrelevant stuff.” Against this backdrop, the academic librarian’s educational role needs to be reconsidered if the academic library, with its expertise and wealth of sources, is to stay relevant and add value to the student’s academic experience.

The aim of this chapter is to explore how the academic librarian can facilitate MA students’ access to knowledge. More specifically, a model of information literacy education is put forth which aims at facilitating students’ access to scientific knowledge in their research process. Access to knowledge is understood in this chapter as intellectual access (Buckland 1991), and not just as physical/electronic access to sources of knowledge. Students’ intellectual access to knowledge encompasses the following aspects:

1. Defining what knowledge needs to be accessed at a given stage of the research process;
2. Finding existing knowledge in relevant sources in an efficient and critical way; and
3. Using and disseminating the accessed knowledge in a creative and ethical way in the context of one’s academic work.

One important point that will be made in this chapter is the academic librarians’ need to ground their practice in educational theory and research. Tradi-

1 This quote is taken from a written evaluation of a library course in advanced literature searching for MA students.
tionally, information professionals have had little research experience or background in educational theory and research in their training. In their role as knowledge access facilitators, academic librarians need to provide relevant and timely intervention in students’ research process. Academic librarians will be in a better position to define the intervention, if they have basic understanding of the following issues:

1. What the student’s research and learning processes are like;
2. What qualifications are expected from the student by the educational framework; and
3. How teaching may enhance or hinder the student’s research and learning processes.

Knowledge of these issues not only enriches librarians’ educational practice, but it also enhances their legitimacy as stakeholders in the higher education landscape. To design the model of information literacy education presented in this chapter, a literature study of the most influential works on teaching, supervising and learning in Norwegian Higher Education was undertaken. These works were identified by examining the literature on which Norwegian Higher Education Pedagogy programs are built. The author was enrolled in the University of Bergen program at the time. The study also examined the Qualifications Framework for European Higher Education Area (Bologna Working Group on Qualifications Framework 2005) and the corresponding Norwegian framework, Kvalifikasjonsrammeverket for høyere utdanning (Kunnskapsdepartement 2009) to consider their impact on information literacy education. Based on these documents and literature, a model of information literacy workshops was designed and implemented since 2008. The workshops have been evaluated by students in written form. In the future, evaluation of the workshops will also be carried out through focus group interviews. Examples of information literacy education at the University of Bergen Library are presented in the chapter to illustrate how librarians’ practice can be informed by educational theory and research findings.

This chapter is organised as follows:

- The main challenges that MA students face in their research process, as revealed by the literature on academic writing, academic supervision and student information search behaviour;
- A consideration of how library user education can contribute to the attainment of the qualifications required from the student. Subsequently, a model of information literacy education is outlined, which is underpinned by the conception of learning as social phenomenon (Lave and Wenger 1991) and Kvale’s (1997) education model of research apprenticeship;
An exploration of how organised group support in the form of library workshops can facilitate the MA student’s intellectual access to knowledge. In this kind of library intervention, the librarian mainly adopts a counsellor role (Kuhlthau 2004), rather than that of a locator or identifier. The focus of this kind of intervention goes beyond students’ location of existing knowledge. It emphasises students’ interpretation and use of knowledge for learning (Kuhlthau 2004) and the creation of new knowledge. The section on Constructive Alignment in the Design of Workshops highlights the importance of designing aligned (Biggs 2003) information literacy education; and

An examination of the main challenges that librarians face when applying research apprenticeship to information literacy education.

The Quest for Knowledge: Student Challenges

This section aims to provide a picture of the challenges that accessing existing knowledge pose for MA students, especially at the initial stages of their research process. Table 1 schematises the phases that Humanities and Social Science MA students go through in their research process.

<table>
<thead>
<tr>
<th>Choice of topic</th>
<th>Defining research question</th>
<th>Reading and data collection</th>
<th>Draft writing</th>
<th>Draft rewriting and editing</th>
<th>Closure</th>
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Table 1: Phases in the MA research process in the Humanities and Social Science

Searching for existing knowledge and writing constitute essential components of the research process. Searching and writing are intertwining processes and, for this reason, the process described in Table 1 cannot be understood as a completely linear process. The student’s contribution to knowledge communicated in their writing is dependent on their access to existing knowledge. Access to existing knowledge is in turn dependent on appropriate literature searching. The reader is referred to Torras and Sætre (2009) for a more detailed description of the information searching and writing processes and their interaction throughout the student’s research process.

Research on academic writing (Dysthe et al. 2000; Kamler and Thomson 2006) and on student information searching behaviour (Kuhlthau 2004) reports on a number of student challenges related to access of knowledge, amongst them:
1. Defining information needs to access the knowledge required in a given phase of the research process;
2. Dealing with a large number of available sources;
3. Gaining a reasonable overview of the existing body of literature;
4. Selecting what to read from the available body of literature;
5. Reading the available literature with different aims;
6. Using the knowledge accessed in the context of one’s research question; and
7. Documenting the knowledge accessed in one’s work in an ethical and responsible way.

At an emotional level, Kuhlthau (2004), among other researchers such as Dysthe (2006), observes that students commonly feel uncertainty at different stages of their research process. Dysthe notes that:

“Uncertainty is a cognitive state that commonly causes affective symptoms of anxiety and lack of confidence. Uncertainty and anxiety can be expected in the early stages of the information search process. The affective symptoms of uncertainty, confusion, and frustration are associated with vague, unclear thoughts about a topic or question. As knowledge states shift to more clearly focused thoughts, a parallel shift occurs in feelings of increased confidence.”

In Kuhlthau’s model, uncertainty is inherent in the research process and a trigger for the information-searching process. However, being able to come to terms with uncertainty is essential for the student to make progress in the research process. Humanities and Social Science students are generally expected to produce work which is the result of individual research. Isolation (Samara 2006) may easily add to the feelings of uncertainty, thus, making the initial phases of the research process more challenging at an emotional level.

Humanities and Social Science MA students embark on a research project where access to knowledge has traditionally been the supervisee and the supervisor’s domain. The librarian has typically offered sporadic ad hoc supervision (Handal and Lauvås 2006) and/or the librarian has mainly played a locator or identifier role (Kuhlthau 2004). The librarian is contacted only when the student experiences a specific problem, such as tracking down a reference recommended by the supervisor. The question which needs to be addressed is how can the librarian support in a more proactive way the MA student already in the very initial phases of the research process?

Accessing knowledge is a challenging key task at the initial stages of selecting a topic and formulating a research question (Table 1). The initial stages are typically dominated by feelings of uncertainty and confusion. Research on academic supervision stresses the benefits of both individual and group super-
vision at the initial stages of the students’ research process (Handal and Lauvås 2006; Cavallin 2006).

The Educational Framework: Expectations of the Student

In designing user education that facilitates student’s access to knowledge, it is not only necessary to be aware of the student’s research process and the difficulties entailed. It is also important to bear in mind the educational framework and the expectations that higher education has of the MA student. The question that academic librarians need to pose to themselves is: how can information literacy education contribute to students’ achieving the degree qualifications expected of them? In the European context, learning outcomes established for library user education should be based on general skills, competences and knowledge defined by the Qualifications Framework for European Higher Education Area (Bologna Working Group on Qualifications Framework 2005) and corresponding national qualifications framework.

If information literacy education is embedded in the MA program, the program/course learning goals and outcomes will also be informed by the qualifications described in the European framework. In practical terms, this means that the learning outcomes defined for the embedded library workshops or courses should be consistent with the learning outcomes of the MA program or course. This consistency can also be defined as alignment (Biggs 2003). Alignment will be discussed in more detail in the section below which deals with that issue.

The MA program in Spanish Language and Latin American Studies offered at the University of Bergen, Norway, is taken here as an example to illustrate the relationship between the general educational framework and embedded information literacy education. A series of library workshops are embedded in this MA program, among them a workshop on Advanced Literature Searching for Thesis Writing. This workshop is embedded in the MA course SPLA 304 Preparing for the MA Thesis. The general learning goal of SPLA304 is “... to provide students with a discipline background that enables them to write a research project statement for their MA thesis”. Among the specific learning outcomes for this course, it is stated that students “... will have the skills to write a research project statement ... and ... will be able to formulate a research question, plan and carry out research process tasks”.

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2 The description of the SPLA304 course is available from http://studentportal.uib.no/index.php?link_id=2227&sublink_id=&toplink_id=2411&mode=show_page&content_id=686&modus=vis_emne&kode=SPLA304. The title of the course and the learning outcomes have been translated from Norwegian by the author.
The learning outcomes just mentioned can only be attained if the student is able to access relevant knowledge. Gaining an overview of the literature is essential in order to be able to narrow a research question, write a research project statement and a literature review. These research activities involve mastering of skills such as defining information needs and finding and accessing existing literature in relevant discipline-specific resources. Accordingly, the following learning outcomes are defined for the library workshop on Advanced Literature Searching for Thesis Writing:

**Excerpt 1**

After students have completed the workshop, they will:

- Be able to define information needs related to their MA research topic.
- Be familiar with relevant discipline-specific information resources.
- Be able to deploy and implement appropriate search strategies.
- Be able to assess the content and relevance of hit lists.
- Be able to find relevant information to gain an overview of their research topic and to gradually focus their research question.


At a more general level, the European Qualifications framework specifies a number of “qualifications that signify completion of the second cycle” (Bologna Working Group on Qualifications Framework 2005). Excerpt 2 encompasses qualifications related to the student’s application of knowledge:

**Excerpt 2**

Qualifications that signify completion of the **second cycle** are awarded to students who:

(…)

- can apply their knowledge and understanding, and problem solving abilities in new or unfamiliar environments within broader (or multidisciplinary) contexts related to their field of study;
- have the ability to integrate knowledge and handle complexity, and formulate judgements with incomplete or limited information, but that include reflecting on social and ethical responsibilities linked to the application of their knowledge and judgements;

(…)

The knowledge referred to in Excerpt 2 builds upon previously existing knowledge. The students’ construction of knowledge and subsequent application of it is dependent on their ability to search and access the existing body of knowledge. In this sense, the learning outcomes of the library workshop above also contribute to achieving specific qualifications defined in the European Qualifications Framework.

It is important to note that qualifications described in the educational framework are translated into learning goals and outcomes. This is a matter that requires discussion between faculty and the academic library in order to reach a consensus on establishing learning goals and outcomes. Also requiring discussion is how responsibilities will be shared with regard to planning, teaching and assessing. Defining learning goals and outcomes is a specific instance of collaboration to achieve embedded information literacy education. The ultimate aim of this collaboration is to incorporate information literacy learning goals and outcomes into those of the MA course or program. This question will be further discussed through the concept of alignment in the section that deals with this issue (Biggs 2003).

Access to Knowledge as a Social Practice: Library Workshops as Communities of Practice

This section advocates an educational practice of librarians which is consistent with their views and those of the institution on learning. A model of library workshops underpinned by Kvale’s (1997) research apprenticeship is presented here, which aims to support the MA student with facing challenges and achieving the qualifications mentioned in the previous sections. Framed within a sociocultural approach to learning, the workshops are based on interaction, dialogue and scaffolding (Wood, Bruner and Ross 1976). They further build upon Dewey’s principle of learning by doing and reflecting on one’s own activities. Through the workshops, students’ participation in a research community of practice is enhanced. The library workshops contribute to strengthening students’ researcher identity and improving their access to knowledge practices. In so doing, they contribute to students’ socialisation into the discipline.

This section is organised as follows:

1. Student learning is briefly characterised from a sociocultural perspective. Being aware of how learning takes place and reflecting on how the librarian’s teaching practice can enhance learning are considered vital questions in the design of information literacy education.
2. Drawing upon a sociocultural perspective on learning, research apprenticeship is proposed as a model of organised information literacy education.
tion at the library. Subsequently, specific examples of workshops at the University of Bergen Library, Norway, are discussed to illustrate how research apprenticeship can be implemented at the library. The examples are meant to inspire the reader’s own practice. They illustrate how a sociocultural approach to information literacy education may pan out in the classroom. They further show how students’ participation in a community of practice can be strengthened while they improve their access to knowledge abilities.

3. The main features of research apprenticeship are summarised in relation to information literacy education.

Learning as a Social Phenomenon: A Sociocultural Perspective on Learning

*Professional and autonomous educators* (Engelsen 2006) make theoretically founded and independent choices in their teaching and are willing and capable of examining their practice critically. The academic librarian is an educator who aims to facilitate the student’s access to knowledge. Librarians’ teaching practice must also be informed by their and their institution’s views on how learning takes place.

The model of user education suggested in this chapter builds upon a sociocultural perspective on learning, as put forward by Dewey (1933), Vygotskij (1967, 1978), Bakhtin (1981, 1986) and Lave and Wenger (1991). From this perspective, learning is a social phenomenon. It takes place primarily through the learner’s participation in a community of practice, rather than through individual processes. Learning takes place through engaging with other peers in learning activities. Students construct knowledge through practical activities and reflection, in interaction with others and in a specific context. Learning is thus situated or contextualised. Language is an essential component of the learning process, and for this reason, it is important to foster dialogue in teaching situations.

At the same time, students’ identity as researchers also develops as they interact and engage in learning activities. Students are *legitimate peripheral participants* (Lave and Wenger 1991) of the academic community. They gradually become *complete* members through their participation in an academic community of practice, as well as by being trained and acquiring more knowledge of their field. The researchers’ identity, as a member of the academic community, is characterised for instance by mastering of skills to access and manage knowledge and by endorsing an ethical code of conduct. The next sections present a model of information literacy education which contributes to students’ development of skills and identity, while enhancing their participation in a community of practice.
Research Apprenticeship: Participating in a Community of Practice

The concept of information literacy education discussed in this section draws upon Kvale’s (1997) model of research apprenticeship, which in turn draws upon Lave and Wenger’s (1991) theory of learning as a social practice. Kvale highlights four aspects of apprenticeship in the training of researchers: participation in communities of practice; learning by doing; evaluation through practice; and, acquiring a professional identity. In what follows, these four aspects are analysed and applied to information literacy education at the library.

Research apprenticeship enables organised research education which facilitates the student’s legitimate participation in a community of practice. Wenger (2001) defines a community of practice as “a group of people who share an interest in a domain of human endeavor and engage in a process of collective learning that creates bonds between them...” A community of practice is characterised by type of domain, community and practice. Membership involves knowledge, however basic, of the particular domain of the shared interest. There is a minimum shared competence. Members build relationships and a community around their domain by engaging in joint activities and dialogue, sharing information, helping each other and learning together. Over time, members develop a shared practice consisting of common “experiences, stories, tools, ways of addressing recurring problems” (Wenger 2001). By participating in the library workshops the students work on the specific skills and values in terms of accessing knowledge which characterize their research community.

Further, learning takes place mainly by doing, rather than by relying on the master/librarian’s formal teaching and transmission of knowledge. Students observe, imitate and do tasks which are both self-evaluated and evaluated by other apprentices/student peers and the master/academic librarian. Members of both groups provide a student with feedback along the way.

Kvale (1997) argues for extending apprenticeship to a variety of academic settings. Library user education can be one such setting, where the overall learning goal is to facilitate the students’ intellectual access to knowledge by improving their information literacy. As stated in the introduction, intellectual access to knowledge encompasses the following aspects:

1. Defining what knowledge needs to be accessed at a given stage of the research process;
2. Finding existing knowledge in relevant sources in an efficient and critical way; and
3. Using and disseminating the accessed knowledge in a creative and ethical way in the context of one’s academic work.
Kvale (1997) argues that research apprenticeship contributes to students’ acquisition of complex intellectual skills. Complex intellectual skills are integral components of the researcher identity. Information literacy education based on research apprenticeship can also contribute to students’ acquisition of some complex intellectual skills, such as the ability to access existing knowledge, evaluate it critically, and use it ethically and responsibly.

Research Apprenticeship in Practice: Information Literacy Workshops at the University of Bergen Library

This section illustrates how research apprenticeship can be applied in practice. The training of Spanish Language and Latin American Studies MA students at the University of Bergen, Norway, is used as an example.

Integration of Information Literacy Education in the MA Program in Spanish Language and Latin American Studies

A group of students enrolled in the same MA degree program can be looked upon as novice members of a research community of practice. The new MA students at the Department of Spanish Language and Latin American Studies constitute a relatively small group, approximately 15 students. They attend an obligatory two-day introductory seminar. At the seminar, students are introduced to central theoretical, methodological and ethical questions, as well as to the department research projects. The seminar aims at helping students with their selection of topic and design of MA project.

Information literacy education is integrated in the MA program. The library is responsible for a six-hour workshop at the two-day introductory seminar. The workshop covers the following three information literacy components: advanced literature searching for thesis writing, critical evaluation of sources, and referencing and ethics. In addition to the compulsory six-hour workshop, students are offered the possibility of participating in a reference management system workshop. The general learning goal of this workshop is to enable students to keep track of the relevant knowledge they access in the research process, store and manage it.

After the introductory seminar, MA students participate in a work-in-progress seminar throughout their MA study time. MA students, staff members and the academic librarian are invited to present and discuss research issues at the work-in-progress seminar. The session facilitated by the academic librarian focuses on students’ specific questions regarding access to knowledge, its management and use in their research process. The session is scheduled at a time when students’ research question is focused and they are writing drafts (Table 1). At this workshop, the students already show that they have become
less peripheral or novice members of the community in terms of gaining access to knowledge.

Rolling Out the Workshops: Advanced Literature Searching for Thesis Writing

Library workshops are organised into a series of hands-on sessions based on individual and group work, reflection and discussion. To help the reader visualise apprenticeship in action, this section will walk her or him through the delivery of the two-hour session on Advanced Literature Searching for Thesis Writing. The session is facilitated by an academic librarian (subject specialist) in the library computer room. At the time of attending a library workshop, students have just started or are about to start working on their research project statement. Students working on similar topics are encouraged to sit together. Prior to the workshop, students have been requested to e-mail their research question to the academic librarian so as to provide this facilitator with some indication of their research goal. This session is divided up into the following parts: debriefing, preparing for the search, searching for scientific information and closing.

Debriefing

After a brief presentation of the learning outcomes, the workshop kicks off with a debriefing on students’ experiences with searching and accessing knowledge. The debriefing and the e-mail correspondence mentioned above usually reveal that students are at slightly different research stages. Typically some may have started searching the library catalogue and have used search engines. Some may be well acquainted with some article databases. Others may have not started searching at all. Some students have negative feelings when they attend the workshop. They express frustration because they have not succeeded in finding relevant information in the library resources. While others feel that they already have enough information to start on their MA work and are not very motivated to attend the workshop. The debriefing gives the academic librarian valuable information on the students’ situation, prior knowledge, needs and expectations. This information enables the librarian to adjust the workshop plan slightly so that the workshop is better tailored to the student group.

Preparing for the Search

After the debriefing, students focus on preparing for their literature search. Each student writes down their topic/research question in as much detail as they can provide at that point. They give this short text to the student sitting next to them. Based on this short text, the students interview each other about
their topic/research question and project plans. Each student is then asked to provide a list of keywords with synonyms for their fellow student’s research question. Based on these written activities, students discuss their own research questions and refine their keyword list in dialogue with others.

Searching for Scientific Information

Subsequently, the librarian initiates a whole group discussion on library databases which may be relevant at initial and more advanced search stages. The discussion draws upon the students’ previous knowledge of available databases. A brief presentation is made on the most relevant discipline-specific databases.

Students individually explore and search the databases using their keyword lists and combinations. The librarian fades into the background while surveying the students’ searching activities and discussions. The librarian assists when students experience difficulties, although students may also turn to their peers for help. Further, the librarian tries to elicit answers and reflections from the group whenever questions of general interest arise.

Closing

At the end of the session, students are asked to report and discuss their searching experience in small groups. More specifically, they discuss why some databases are more relevant to them than others, difficulties and frustrations, good search tips and strategies, hit lists and further searching plans.

Developing a Researcher Identity: Referencing and Ethics

Engaging in learning activities at the library workshop contributes to the student’s acquisition of a researcher identity. For instance, the session on Referencing and Ethics has the general goal of raising students’ awareness of academic integrity issues such as the ethical use of existing knowledge available in a variety of formats. Raising the student’s awareness of academic integrity in their research activity is a first step to facilitate the student’s internalisation of the ethical norms and values shared by the research community.

At the Referencing and Ethics session, students are divided up into small groups and asked to discuss a number of learning scenarios. The three scenarios below can be looked upon as instances of Kvale’s (1997) “narratives of the trade”. These narratives are one of the various forms in which learning can take place in research apprenticeship. The discussion of learning scenarios has proven to be successful learning activities at the workshops. They effectively engage students in a lively discussion of essential ethical issues. The narratives
also allow students to relate them to similar experiences and dilemmas, and to reflect on the ethical implications of their own research plans.

In scenarios 1 and 2, students engage in a discussion of copyright restrictions and referencing of non-textual sources such as pictures and video clips.

**Scenario 1. A picture of Vargas Llosa**

MA student Daniel is writing his thesis on Vargas Llosa. He is looking for a picture of the author, which he would like to use in his thesis as an illustration. Discuss the following questions in your group:

- What printed and digital resources could he use to find such a picture?
- How can he make sure that the picture chosen is used in his work ethically and in accordance with copyright regulations?

**Scenario 2. Using video clip materials**

Juan Carlos is writing his MA thesis on Spanish football and national identity. He wants to use a snapshot of the following video clip: http://news.bbc.co.uk/1/hi/world/europe/7480520.stm

Discuss the following questions:

- Does he need to obtain permission to use the snapshot in his thesis? Why?
- How would the source be referred to in accordance with the Modern Language Association style of reference?

In scenario 3, students reflect on research ethical questions which may arise in the fieldwork and in their later use of data. Confidentiality, possible identification of persons, privacy and consent are issues at stake in this scenario.

**Scenario 3. Taking photographs in fieldwork**

MA student Margrethe is writing her thesis on Santería rituals in Cuba. She is doing her fieldwork and is planning to take photographs of Santería rituals to document her research.

Discuss the following questions:

- What issues must she consider to be able to carry out this research activity ethically?
- After the photographing session, she is considering to include the following picture in her thesis.
Figure 1: Cuban Changó

What issues does she need to take into account in order to be able to reproduce this picture ethically in her work?

Different student groups are assigned different tasks and asked to discuss how they would solve the situations presented in the scenarios. Subsequently, they sum up their discussion for the whole group and ask for feedback. In this way, students are exposed to a variety of situations regarding the access and use of visual sources. The scenarios have been designed by the academic librarian, based on supervisors’ feedback and the experiences of previous students. The academic librarian facilitates the discussion, contributes with her expertise where needed, and ensures that key issues are covered.
This section presented a model of information literacy education which aims at facilitating the student’s intellectual access to knowledge. Research on academic supervision stresses the benefits of organised student support at the initial stages of the students’ research process (choice of topic, defining a research question, Table 1). Students felt uncertainty and experienced difficulties when accessing and managing existing knowledge at these stages. The library workshops described above are intended as practical instances of library intervention to support students at the initial stages of their MA research process.

The library workshops are based on a sociocultural approach to learning and teaching. They offer organised student support based on the concept of research apprenticeship. Learning is understood as a social phenomenon. Students learn from each other through their interaction and dialogue (Lave and Wenger 1991; Samara 2006). Dialogue is an essential component in the apprenticeship model. Students construct knowledge as they experience a plurality of voices (Dysthe 2006; Dysthe, Samara and Westrheim 2006). Kuhlthau (2004) also singles out dialogue between the librarian and the student as a key component in process-oriented librarian intervention.

At the library workshops, scaffolding (Wood, Bruner and Ross 1976) encourages students’ dialogue and enhances their learning. Through scaffolding, the academic librarian helps students acquire new knowledge and skills. New actions are shown and discussed, which the student can adapt and practise alone later on (Handal and Lauvås 2006). Scaffolding also takes place through peer learning. Students work together and provide feedback on each other’s work. Students who are more advanced can be coaches for those who are at more initial research stages. Students can evaluate their information practices with both the information professional and their fellow students as they work.

The use of student’s texts such as preliminary formulations of a research question, brainstorming and keyword lists can also be said to serve a dialogical function at the workshops. They are tools which engage the students and the librarian in a dialogical process (Dysthe 2006) by encouraging them to listen and to think aloud. Dysthe, Hertzberg and Hoel (2000) claim that the task of defining what knowledge is needed becomes easier after some writing has taken place. Writing should not exclusively start after searching and accessing existing knowledge. For this reason, the library workshops encourage student writing for thinking (Dysthe, Hertzberg and Hoel 2000) from the very beginning of the research process. Writing before reading helps students find their voice and formulate their thoughts better, without feeling overwhelmed or constrained by what the authorities in the field have said. Later on, writing while reading helps students establish a dialogue with the literature, gain understanding of it and formulate their own thoughts about it.
The library workshops are an instance of organised student support. At an emotional level, Samara’s (2006) research on organised student support reveals that it helps students progress in their work as well as increasing their motivation and self confidence. The following comment, written by an MA student in her workshop evaluation, seems to corroborate this: “I now have the feeling that I may not have embarked on a hopeless project after all”.

The library workshops are a learning space in the students’ higher education landscape where they can work on their socialisation into the discipline. Socialisation in the academic culture is one of the overall goals of MA education (Dysthe, Samara and Westrheim 2006). In addition, the workshops give a sense of community which may diminish the feelings of isolation that were previously mentioned in the section titled The Quest for Knowledge: Student Challenges. The workshops can thus be said to add value to the student’s experience both at an academic and emotional level. They also contribute to the student’s construction of a researcher identity by doing research activities where knowledge is accessed and managed in an effective, creative and ethical way.

To conclude, the library workshops engage students in a social process which involves a wider community than just the supervisor-supervisee relationship, which has traditionally dominated the arts and humanities.

![Diagram of supervision process](https://example.com/diagram.png)

Figure 2: Parties in the supervision process as a whole (Torras and Sætre 2009)

As schematised by Torras and Sætre (2009) in Figure 2, students are not only regarded as researching individuals but also as members of a community, where they share goals, needs and challenges with their fellow students. The academic librarian and fellow students become active partners who contribute to the student’s research process alongside the supervisor.

**Constructive Alignment in the Design of the Workshops**

Biggs’ (2003) *constructive alignment* is a central concept in current higher education curriculum design. It also underlies the design of the workshops presented above. Constructive alignment is based on the assumption that students
construct meaning through the learning activities they engage in. This is in line with the sociocultural approach to learning and teaching on which the workshops are based.

In constructive alignment, the educator’s task is to create learning environments that encourages and supports the intellectual activity of students. This requires that the intended learning outcomes are consistent with the designed assessment tasks and learning activities. Intended learning outcomes are defined as what students are expected to know or be able to do after the learning experience (e.g. a workshop). In short, the educator needs to define the intended learning outcomes and select learning and teaching activities that will help students attain the outcomes. The educator further needs to select a type of assessment that will allow them to establish the student’s outcomes. From this perspective, students are expected to take responsibility for their learning. For this reason, it is important to make students aware of the intended learning outcomes.

In order to embed the library workshops into the MA program, the academic librarian needs to operate in alignment at two different levels. This double alignment is illustrated by Figure 3.

![Figure 3: Alignment between library workshop design and MA course/program design](image-url)
At one level, academic librarians must aim at alignment between the intended learning outcomes, activities and assessment of a library workshop. At another level, they need to ensure that the workshop outcomes, activities and assessment are consistent with the outcomes, activities and assessment of the MA course or program in which the library workshop is embedded. A condition to achieve this double alignment is close dialogue and collaboration between the academic librarian and the academic staff responsible for the MA course or program. A common understanding of learning outcomes, activities and assessment for both the MA course/program and the library workshop is necessary. This will ensure teaching activity which will cause the students to engage with learning and which will help them achieve the intended learning outcomes.

Misalignment will easily result in unsuccessful library workshops of little relevance, with low attendance and little student motivation and engagement. A library workshop aimed at enabling students to access existing knowledge in their field of study in an independent and effective way serves as an example. The workshop is based on database searching activities. A mismatch is highly likely to occur, if the library workshop is embedded in a subject based on a transmission model of teaching. From this teaching perspective, students are, for instance, provided with a reading list, readily available in a reading pack. They are not expected to look for any more literature or to write any assignment. Assessment is entirely based on a traditional final exam mark. In this situation, students can hardly be expected to engage in literature searching activities. Neither the subject learning outcomes nor assignment requirements require them to do so.

By contrast, learning activities at the library workshop just mentioned will be better aligned with the learning activities of the MA course/program, if for instance, students are asked to hand in an annotated bibliography as part of their assessment. The library workshop searching activities will then be more relevant to the subject learning activities, outcomes and assessment.

There is considerable variation in the extent to which the academic librarian is involved in student assessment. In the case of the library workshop examples described in this chapter, student assessment is entirely the academic staff’s responsibility. Likewise, there is also considerable variation regarding how the intended learning outcomes of the library course are assessed in relation to the subject learning outcomes. A discussion of aligned assessment is beyond the scope of this chapter. The reader is referred to Mackey and Jacobson (2010) for inspiring examples of collaborative information literacy assessment.

The section “The Quest for Knowledge: Student Challenges” discusses an example of how to align the learning outcomes of the library workshop on Advance Literature Searching with those of the SPLA304 course in which this workshop was embedded. Likewise, an attempt has been made to align the
workshop learning activities described in Advanced Literature Searching for Thesis Writing and Referencing and Ethics with the learning outcomes established for the workshops and the MA course, such as the student’s ability to write a research project statement. The activities are relevant to the students’ own literature review and to ethical issues which they need to deal with in their research project statement.

Achieving alignment is extremely challenging, and even more so for the academic librarian, who needs to operate in alignment at two levels. However, aiming to attain constructive alignment contributes to better student learning (Biggs 2003), on the one hand, and on the other, to the professionalization of the pedagogical role of the librarian. Constructive alignment requires academic librarians to be more professional and autonomous educators. They need to reflect on their practice critically by regularly revisiting course plan and roll out.

Conclusion

This chapter has presented a model of information literacy education which aims at facilitating the MA student’s intellectual access to scientific knowledge. Intellectual access to knowledge goes beyond physical/electronic access to sources of knowledge. It also incorporates students’ interpretation and use of existing knowledge in their research process.

In order to provide appropriate librarian intervention, it is necessary to be acquainted with the MA research process. The literature on academic writing, academic supervision and student information searching behaviour document specific intellectual and emotional challenges related to the access to and management of knowledge. These challenges need to be attended to in the design of information literacy education. In addition, the librarian needs to be aware of the qualifications that are expected from students within the educational framework where they study. The learning outcomes of information literacy education should contribute to the attainment of some of those qualifications. In this respect, the importance of constructive alignment (Biggs 2003) in designing information literacy education has been highlighted. The learning outcomes, activities and assessment of a library course or workshop should be aligned. Likewise they should also be aligned with the learning outcomes, activities and assessment of the MA course or program where the library teaching is embedded.

Kvale’s (1997) educational model of research apprenticeship has been presented as a practical way of organising embedded information literacy education. In the library workshop examples discussed, access to knowledge becomes a social practice. By engaging in information literacy activities relevant to their MA work and the research stage they are at, students learn from interacting and establishing a dialogue with each other and the librarian. The li-
Library workshops constitute one of the arenas where MA students participate in their research community of practice. Thus, these workshops contribute to the students’ socialisation in the discipline and their construction of a researcher identity.

To conclude, applying research apprenticeship to information literacy education involves a number of challenges. They are briefly discussed in what follows, based on the lessons learned from the workshops presented in this chapter. As previously discussed, one of the challenges was achieving constructive alignment. Close collaboration with faculty is a condition *sine qua non* in order to attain constructive alignment in the design of embedded information literacy education. Student assessment has been mentioned as one specific aspect where the librarian’s legitimacy as a stakeholder cannot be taken for granted.

Another challenge for the librarian in the planning and rolling out the workshops is student diversity. Students find themselves at different research stages when they come to the workshops. In addition, they come from different backgrounds. There may be both international and home students, young and more mature students. Some may have participated in organised information literacy education previously, others may not have. These diversity factors result in varying degree of skills, attitudes, values, knowledge, motivation and expectations.

Undoubtedly, diversity factors are difficult to determine and cater for when planning and rolling out library workshops. At the same time, awareness of diversity and strategies to attend to it in the classroom are quite decisive in order to succeed in engaging students in learning activities. The bibliographic paradigm which used to dominate information literacy education at the University of Bergen Library did not consider diversity as a factor during the planning or rolling out of teaching situations. ‘One size fits all’ and ‘just in case’ teaching was heavily teacher- and resource-centred. Research apprenticeship provides a better framework in the sense that it enables the librarian to unveil diversity to a certain extent. Although the unveiled diversity still needs to be addressed at the workshop, research apprenticeship does seem to provide a better framework to achieve contextualised information literacy education.

Finally, librarian intervention and dialogue between the librarian and the students over time are also challenging. The workshop sessions chosen in this chapter exemplify librarian intervention at the initial phases of the students’ MA research process. Choice of topic and defining a research question are phases in which students can benefit intellectually and emotionally from organised student group support. Nevertheless, students’ information needs, choice of appropriate strategies and relevance of knowledge sources will vary over time as their research question gradually becomes more focussed (Kuhlthau 2004) and they progress through the MA research phases. For this reason, librarian intervention cannot be limited to one-shot instruction. The
question that needs to be addressed is what kind of librarian intervention should be provided in later phases of the student’s research process. This is an issue currently under discussion in the case of the workshops discussed in this chapter. Torras and Sætre (2009) also single out this challenge in their discussion of the academic librarian as a process-oriented secondary supervisor. On the other hand, more frequent contact with students is also challenging because it is likely to result in a larger working load for the librarian and thus in the need for more teaching resources.

The challenges are however outweighed by the student benefits which have been described above. In addition, applying research apprenticeship to information literacy education provides a practical example of how the use of research findings and educational theory can benefit academic librarians’ teaching practice. Their professional identity as educators is strengthened, and their facilitating role better legitimised in the students’ complex process of accessing knowledge.

Credits

Table 1: Handal and Lauvås, 2006, p. 67. The author’s translation.
Figure 1: Solveig Kavli
Figure 2: (Torras and Sætre 2009, p. 84).

References


