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Faculty-library collaboration: two pedagogical approaches

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Abstract

The aim of this article is to discuss some of the challenges and possibilities that librarians may face when engaging in faculty-library collaboration. The main objective is to present findings from two case studies of embedded librarianship at Gjøvik University College (GUC) and to compare these findings with results from a literature review. The literature review is concentrated around collaboration challenges, a possible role-expansion for librarians, team-teaching and assessment of information skills courses. Another objective is to present two pedagogical approaches that are in use at GUC; the tutor approach and the team-teaching approach. Findings from the case studies suggest that faculty staff were impressed with the librarian's knowledge and they quickly became comfortable with team-teaching and/or leaving the librarian in charge of the students. However there were concerns from both the teacher and librarian about the time-consuming nature of collaborative work. This paper contributes to the literature through a literature review, two case studies and teaching approaches that highlight factors leading to success when collaborating with faculty.

Keywords

information literacy; pedagogy; assessment; team-teaching; faculty; academic libraries; collaboration; student learning outcomes; higher education; undergraduate students; postgraduate students; Norway

1. Introduction

Teaching is a major part of many academic librarians' working day. Still, there is little in the undergraduate education courses for librarians in Norway that prepares them for this kind of work. A lack of familiarity with the pedagogical jargon and teaching principles could be a hindrance to working with faculty staff, and this may also prove difficult when trying to integrate information skills in the academic setting.

Understanding how faculty view the librarians' skills and knowledge base is at the centre of understanding the relationship between the professions, and the foundation for collaboration. Understanding how the students perceive their information skills could help tailor our courses. Understanding how the librarians see their own role as educators and teaching partners could make it possible to break through the barriers of old patterns and traditions.

What do we want from faculty-library collaboration, and why is collaborating with faculty staff so important for librarians? Why do faculty staff seem less interested? Why are so few librarians invited to be real partners in teaching and training of information skills, even though faculty staff seem to appreciate the services the library provides? What is the students' take on the collaboration; do they think it is important for their learning outcomes? These are questions that have arisen in the author's mind over the last few years. This article is an attempt to bring together theories and experiences from practice in the information literacy (IL) field.

1.1 Background

Gjøvik University College Library (GUCL) started working on a pedagogical platform in 2013. The foundation for this platform has been laid over several years and through the gradual implementation of two different pedagogical approaches. These two approaches, the tutoring approach and the team-teaching approach, form the basis of these teaching activities.

While the overall goals are the same for the two approaches, namely teaching students how to effectively handle information and how to write well, the approaches emphasise different things. The main goal when using the tutor approach is to help students write better papers by giving them direct feedback on planning and process as well as hands-on advice on their papers. The librarian and teacher collaborate on planning the course, and the overall learning outcome is thoroughly discussed, but the librarian is responsible for the tutoring and giving feedback on papers before the students have their final deadline.

The team-teaching approach is mostly used when the students need a broader introduction to academic writing, and where the teacher's and the librarian's joint knowledge can shed light on the process. In this approach, the learning outcomes are focused on research methods and searching for information.

These two approaches have been tested on different class sizes and on different faculties at Gjøvik University College (GUC), and they are in current use at the Gjøvik University College Library (GUCL).

The GUCL pedagogical platform where the two approaches are explained in more detail is currently being reviewed and finalised.

1.2 Defining 'information literacy'

'Information literacy' is a difficult term to make any practical use of, because it can be used to describe almost all forms of information interaction in the world. As Høivik (2010) explained: 'Information literacy becomes "life literacy"', and it is therefore arguably a term without much practical use. Elmborg (2006) notes that "...the lack of clarity has confused the development of a practice that might give shape to librarianship in the academy" (p. 192). 'Information skills' may be a term that can be used to describe the practical side of IL. Some may argue that 'information skills' is too focused on pure skills and does not take into account aspects like lifelong learning and the tacit knowledge that comes with experience. Many have tried coming up with a single line definition of the elusive concept of 'information literacy' (ALA 1989; CILIP 2004; UNESCO 2005). Secker and Coonan (2012) combined the many similar, and sometimes overlapping terms (such as 'digital literacy', 'media literacy', and 'academic literacies') into a larger 'quilt' to define the many parts that made their vision for their framework.

The author has struggled with the term 'information literacy' for years, and even though the UNESCO (2005) definition is the one that falls closest to her idea of the concept, she has decided on using 'information skills' as her default term to describe the tangible things she is trying to teach, e.g. finding relevant information, reading and understanding academic papers, citing and using a reference system.

1.3 Objectives

The objective of this article is to present the results from two case studies of embedded librarianship through faculty-library collaboration at GUC and to compare these results with the

results from a literature review. A role expansion for librarians is briefly discussed. The main research questions are:

- What are the most commonly known challenges for faculty-library collaboration?
- How can assessment of information skills courses contribute to increased level of faculty-library collaboration?
- How can faculty-library collaboration affect the library's teaching activity?

Being aware of some of the challenges of faculty-library collaboration can be of help to teaching librarians attempting to start a new collaboration, and the case studies described may serve as examples of how embedded librarianship can work in the daily practice of information skills training.

2. Method

Experiences from two case studies at GUC were compared to findings from a literature review. The cases described were carried out by the author, currently the only librarian at the institution who specialises in teaching.

2.1 The case studies at GUC

To the librarian in charge of teaching at GUCL it became more and more obvious that the one-shot instruction, separate from the subject areas being taught, was not providing the students with the information skills they needed to write their papers and to manage their studies. Over time this led to several initiatives to embed information skills sessions, with various degrees of integration and varying levels of success. Through experiments and literature surveys, GUCL developed the two pedagogical approaches described in the results section of this article.

Two case studies are included in this paper. The first involved teaching for students on the undergraduate programme in radiography. The students were in their third and final year, and they were writing a literature review on radiation therapy and mammography. The tutoring approach was used. This approach was executed the first time in 2010, but due to the time commitment issues it was then adjusted and run again in a new version in 2011 and 2012.

The second case study was teaching developed for students on a postgraduate programme in interaction design in 2013. Their assignment was to do a literature review for a course in research planning and advanced project planning. The literature review was to be undertaken as part of the preparation for their Masters thesis. The team-teaching approach was used here.

Student and teacher/librarian evaluations were used to determine general satisfaction in both case studies. In the first case a pre- and post-test, as well as Critical Incident Questionnaires (CIQ), were used to measure learning outcomes. CIQ forms were chosen on the basis of their reflective nature. The CIQ forms consisted of five questions, all of which ask students to reflect on what happened in class on a particular day. Students were required to summarise their CIQ form answers into a short reflective paper at the end of the course. In the second case study the teacher did informal course evaluation, through oral feedback and a questionnaire. This was the preferred evaluation method of the teacher, and the librarian was not involved in the evaluation. Due to a heavy workload for the students on this course it was not practical to ask them to write a reflective paper in addition to their literature review.

Even though GUC is a small institution with only 3000+ students, it is the author's belief that the pedagogical approaches described in this article can be adapted to suit a larger institution. In

addition the author hopes that teaching librarians might find the pedagogical framework described in this article of value to their own teaching practice.

2.1.1 The tutor approach: the concept

The tutoring approach used at GUC starts with a meeting between librarian and teacher where learning outcomes and assignments are discussed. The librarian gives an introductory lecture to the class. This usually includes general information about the assignments, structuring academic texts, searching and evaluating information, referencing etc. The students are given a deadline for handing in their research questions and/or introductions, and are asked to arrange a time for the tutor session for their groups. The librarian leads the tutor sessions for each group. The groups can choose how they want to spend their session, but usual topics include wording of their research questions, search strategies and evaluation of sources they have already found. The groups are then given a new deadline for handing in drafts of their assignments to the librarian, who reads through them and comments on things like style, structure, argumentation, sources, referencing etc. A final lecture or meeting with the class usually takes place within a week of when this feedback is given. This final meeting serves as a forum to clear up any mistakes and to repeat things from the first lecture. The groups can comment on the feedback they have been given. The tutoring approach works best with small groups of students (<30). This because it is time consuming to hold the tutor sessions and to read and give feedback on the assignments. This approach has been tested in a course with 29 students, and due to group sizes and the amount of time used by the librarian, this was considered to be the maximum number of students that could be involved at once, with only one librarian involved. This approach, however, is perceived as more motivating and interesting, and the students generally give very positive feedback on this kind of teaching activity. As several students have noted, they are surprised when they receive feedback on their writing, because this is rarely given to this extent in other assignments.

2.1.2 The team-teaching approach: the concept

The team-teaching approach starts with a meeting between teacher and librarian, where learning objectives and assignments are discussed. This meeting is vital as it lays the foundation for the collaboration. It is important that both librarian and teacher feel ownership of the activity and believe in the objectives and the method. The librarian and teacher decide on a plan for the teaching activities, e.g. who will cover which subjects. The team-teaching is executed and the teacher and librarian collaborate on assessment and further planning. The team-teaching can be performed as a single-session activity or through part of or a whole course or semester. It will depend on the nature of the course and the needs of the students. The team-teaching approach can be used on all class sizes. It is also less time consuming and feedback from both teachers and students has been very positive.

In both approaches, the librarian serves as a teacher on the same level as other teachers. In the tutor approach the librarian is an active contributor to the creative process of writing, and guides the student like any teacher would. In the team-teaching approach, the equality of the teacher and the librarian is essential. They must be seen as equals in order to gain the students' respect.

3. Literature review

There seems to be a growing consensus among librarians that information skills teaching is more likely to succeed (as far as learning outcomes go) when it is integrated in the academic setting (Arp et al. 2006; Asplund et al. 2013; Boon et al. 2007; DaCosta 2010; Limberg 2008; Markless 2009). This requires a close collaboration with faculty staff. One of the problems with this approach is that there are still, in many higher education (HE) institutions, no formalised frameworks that lay the foundation for the integration of information skills in the courses (Asplund et al. 2013). The Norwegian Qualifications Framework (Kunnskapsdepartementet 2011), based on the European

Qualifications Network, was ratified in 2009. The framework is divided into three levels: Bachelor, Master and PhD. Each of the three levels is described through standards within 'knowledge', 'skills' and 'general competence'. Information literacy could easily have been embedded into these three standards. This would have given IL a fixed position in a framework that is already in place, but this has not been the case. Therefore, as Smith and Dailey (2013) note, "any formalised information literacy instruction [which] takes place at the course level, [...] must be initiated by individual professors", which can lead to a variation in students' research skills.

3.1 About the literature review

A literature review was performed between October 2013 and January 2014. Peer-reviewed articles in English or Scandinavian languages published the last 15 years (1998-2013) were included in the search. Only studies on information skills/ information literacy training, and planning and evaluation of such training, were included. Articles on liaison librarianship were included only when it consisted of real collaboration with faculty staff. The co-planning and team-teaching efforts were emphasised in the selection of documents.

Searches were performed in Academic Search Elite, Emerald, ERIC, Norart, Sage Journals Online and ScienceDirect. Google Scholar and ISI Web of Science were used as citation databases.

Faculty-library collaboration is a subject that has received much attention (Asplund et al. 2013; Kotter 1999; Sanborn 2005) but most of the research done on the subject has been performed by librarians and published in library journals (Boon et al. 2007; Bury 2011; Saunders 2012). This 'imbalance' in research will to some degree impact the results. The term 'information literacy' seems to be used by more librarians than teachers and this may also to a certain degree explain why most of the articles that were retrieved during the search process were written by librarians. Some of the articles found during this study were of an anecdotal nature, and many of them described small scale projects, something Streatfield (2008) also noted. This study falls into the latter category. This can make it harder to summarise and analyse the results, as they are not necessarily comparable.

Assessment of learning outcomes has also received much more attention in recent years (Bruce et al. 2006; Oakleaf et al. 2012; Radcliff 2007; Walsh 2011), and it can easily be considered to play an important role in library-faculty collaboration. Assessment was therefore emphasised in the literature review and in the case studies.

3.2 New librarianship, fresh roles

Lankes (2011) suggested that new librarianship is about knowledge creation rather than storage and information retrieval. This is the reason why some libraries, Lankes argues, when forced to cut their budgets, decide to keep the staff and reduce the acquisitions budget (p. 15).

Knowledge creation requires more than a supportive role; it pushes the librarian into the role of the teacher, mentor, coach, in ways that emphasize outcomes rather than inputs (Loertscher and Woolls 2012)

All professions, including the library profession, are constantly evolving. However, the development of new roles for librarians as they take on more teaching responsibilities, marks a profound shift in ideas and foundation for what a librarian 'is', or is thought to be. Already in 1985, Allen Veaner, as cited by Kotter (1999), recommended to the Association of College and Research Libraries (ACRL) to "reaffirm the academic librarian's key role as a proactive analyst, subject expert, counsellor, consultant, linker, and intermediary in the cycle of scholarly endeavour and scholarly communication" (p. 294). Although academic librarians may have taken great steps in this direction in the last 29 years, one can hardly say that this goal has been reached and librarians generally

still have very little formal teaching education as part of their library and information science (LIS) degrees (“not trained to teach” (Saunders 2012, p. 231)), though there may be national differences. Houtman (2010) found that librarians in her study were “try[ing] to figure it out” (p. 19). In Norway, a 5 European Credit Transfer System (ECST) credit course on ‘Libraries and learning’ (Høgskolen i Oslo og Akershus 2014) has been developed to expose the Bachelor’s students to more pedagogic theory and didactics. Even so, most of the librarians in Norway that the author has been in contact with have learned to teach while on the job. Some were also invited to take teaching courses when they first started teaching. The move from service providers to active educators challenges us to “develop new guiding philosophies” (Elmborg 2006, p. 192).

What does the role-expansion do for the library-faculty collaboration? Loertscher and Woolls (2012) claim that while researchers needed librarians in previous years, librarians were never considered active participants in the research process. Librarians were present, but not really visible – “the elephant in the room” (p. 242). With a shifting focus from pure service providers toward active participants in knowledge creation, the foundation could be laid for a better and more interesting collaboration between librarians and faculty staff.

3.3 Collaboration challenges

According to Cook (2000), Mattessich and Monsey defined collaboration as “a mutually beneficial and well-designed relationship entered into by two or more [individuals or] organizations to achieve common goals” (p. 23). Although most of the articles cited in this review use the word ‘collaboration’, it is not always clear what is meant by the term. Where descriptions of specific collaboration cases occur, none describe situations that could match all the core words (“mutually beneficial”, “well-designed” and “common goals”) of this definition. The term “mutually beneficial” seems particularly overlooked. There is little emphasis on how the collaboration can be of profit to the librarian, other than gaining access to students. Benefits (to the librarian) such as subject knowledge, a better understanding of methods used by students and teachers in a particular subject, and assessment skills are only sporadically mentioned.

In a study that the author did as part of her Master’s thesis (Øvern 2011), teachers were very satisfied with the librarian’s role as a teacher, and several other studies report similar experiences, but this is not so in all universities. McGuinness (2003) found that academics do not necessarily value the contributions of librarians to teaching and learning, at least not enough to give up valuable class time to librarians (McAdoo 2010).

Ekstrand and Seebass (2009) found that librarians were seen as excellent collaborators by the faculty staff, but that this was not necessarily the same as actively working for better integration into the curriculum. The liaison librarians were used as mere service providers, and they were forgotten when invitations went out to meetings and conferences, where their competence could have been valuable (p. 85). Bury’s (2011) study from York University, Canada, showed that even though a vast majority of faculty staff found IL to be very important, few made real efforts to teach IL in their courses. This was also supported by Christiansen et al. (2004), who noted that “surveys aimed at faculty users do not reflect a high degree of collaboration, despite generally high levels of overall satisfaction with college and university libraries” (p. 117), and that librarians seem to know more about faculty staff than vice versa. This asymmetry results in a disconnection that both groups are aware of, but only the librarians find to be problematic (p. 118).

McGuinness (2006) wrote that despite the ideological commitment to pedagogical innovation, including information literacy, it “remains an aspiration rather than a fully realized ideal” (p. 574), and she continues:

In seeking to account for this apparent lack of progress, a common trend in the LIS literature has largely focused on the perceived reluctance of the academic teaching staff to

instigate the appropriate structural program changes, which would permit the integration of ILD [information literacy development] with the teaching curriculum. Information professionals, who are eager to collaborate with faculty for ILD, frequently vent their frustration with what has been dubbed the “faculty problem” (McGuinness 2006).

McGuinness’ (2006) paper is also interesting because she tried to look at IL from the teacher’s view, and she found that they were much more interested in letting IL be a process that evolves “gradually and intuitively” (p. 580) than something that needed to be an active part of the curriculum. This is also supported by DaCosta (2010) and by Bury (2011), who noted that faculty staff often do not see a huge role for themselves in implementing IL competencies (p. 53). Even though there seems to be a general understanding amongst faculty staff that IL is important, there is no unified answer on how to teach, when to teach or even who should be responsible for teaching IL (Saunders 2012).

A recent study (Amante et al. 2013) summarised some factors that can cause tensions between faculty staff and librarians. Factors included a lack of awareness among faculty staff of the qualifications and professional training of librarians, and the professional autonomous culture among faculty staff. Other factors were that some librarians avoid establishing contact and communication with faculty staff, the librarians fail to commit to the university’s overall goals, and a lack of time, resources and support (p. 92). One of the most repeated issues in the literature is that faculty staff tend to not regard librarians as their academic equals and this taints the relationship between the two groups. Perhaps even more important is that the librarians tend to not regard themselves as academics (McCluskey 2013).

One of the most comprehensive reviews of library-faculty collaboration ever performed was done by Wade R. Kotter (1999). His study showed that even though faculty staff rate the library, or certain library services highly, when it comes to satisfaction, they do not think of librarians as likely research partners (p. 296). There can be many reasons for this, such as ‘satisfaction surveys’ not being a good enough instrument for measuring relations. It is easy being satisfied when one has few or no expectations. Other reasons include that faculty staff may not know that librarians want to help or have the time to help, that faculty staff may feel ashamed to ask for help because it might appear “unscholarly”, or that faculty staff can be reluctant to admit that the librarians can actually make a contribution (p. 296). Kotter observed that much of the documents that existed about faculty-library collaboration were anecdotal; they were writings about successes or failures of single programmes or tests, and he called for better methods for evaluating faculty-library relations.

Boon et al. claimed that the now recognised need to embed the IL courses into the curricula of other disciplines led to an increasing need for collaboration between librarians and academic staff, but that this remains a difficult subject as “librarians and academic staff find it hard to work with one another” (Boon et al. 2007), and they continued:

... academics do not necessarily value the contributions of librarians to teaching and learning... [and they] identified that the attitudes adopted by librarians toward academics can be another barrier to effective collaboration. (p. 207)

As Kotter (1999) pointed out, there can be numerous reasons why faculty staff find it hard to reach out to librarians, but the teachers’ reluctance to show the librarians that their research skills leaves something to be desired, and that they have little knowledge of the librarians’ profession can certainly be potent reasons. Lack of time and resources teamed with a need for complete control over the course can also be important issues. Lack of time and “resistance to change” are also noted, by Bury (2011) as “likely [reasons] in explaining a low level of faculty involvement in planning and championing IL education” (p. 46). Another reason, as pointed out by Bury (2011) may be that it is difficult for teachers to “put themselves in the shoes of [the] undergraduate student

researcher as they have functioned as expert researchers for so many years” (p. 46). Albitz (2007) found that librarians were frustrated about not being invited to teach IL skills, and teachers were “suspicious of librarian’s motives for wanting to take over valuable class time” (p. 99). Reaching out to faculty with an earnest desire of both helping them with their teaching as well as improving the students’ information skills and suggesting specific courses and times that could work, could be success criteria (Caspers 2013).

3.4 Team-teaching and co-teaching

The terms team-teaching and co-teaching are sometimes used as synonyms, and while they are closely related, they are not the exact same thing. Co-teaching is when a teacher decides to get an external lecturer to cover parts of the curriculum. This is usually decided when planning a course, but the invitation is one-sided; the teacher invites the other teacher to talk about specific subjects, but the external teacher is not a part of the overall planning of the course. In team-teaching the collaboration is much closer between the teachers. They collaborate on planning the learning outcomes, assignments, assessment etc. They participate in each other’s lectures, and they play an active part in all aspects of the course.

Caspers (2013) drew a single-line graph that ranged from parallel work, where there was no collaboration between teacher and librarian, to collaborative work, where the teacher and librarian worked together in the entire process. Cooperative work was located on the line, close to collaborative work. She explained:

When a librarian discusses course goals with an instructor, designs lessons that help meet the course goals, appears as a guest or visiting teacher, provides online teaching units, evaluates the assignments, provides feedback to the students about their work, and obtains feedback from the instructor and/or students in order to improve his or her teaching, the relationship can be defined as cooperative or collaborative, depending on the degree of interaction between the librarian and instructor (Caspers 2013, p. 25).

Caspers (2013) used the term “collaborative” where the librarian is fully embedded in the subject. In this context, embedded means being seen as a subject specialist, not merely a service-provider.

Librarians lament that teachers seem to know little about the librarians’ knowledge base (Christiansen et al. 2004), and that they are not included when important decisions about course content and assignments are given. If librarians want teachers to include them in their coursework, from planning to executing and assessing, it is vital that the librarian’s potential role is well understood (Caspers 2013). Smith et al. (2012) suggests that teachers could provide librarians with their syllabi to improve teaching collaboration and opportunities.

Wang (2011) mentioned four key behaviours of collaboration that could be identified: shared understanding, shared knowledge, joint dialogue with respect and tolerance, and joint efforts with trust and support. A shared understanding of purpose and planning is important for all parties to feel ownership of the collaboration. Trusting one’s partner enough to share the expertise and knowledge as well as working together towards a common goal is vital (Wenger and Hornyak 1999). “Faculty trust in librarians and libraries correlated positively with the willingness of faculty to collaborate with the former” (Amante et al. 2013). Timing is seen as crucial to students’ understanding and development of information skills (McGuinness 2011; Jacobson and Mark 2000; Sanborn 2005), and this can be easier to achieve when team-teaching, where librarian and teacher are planning the course together. While these key behaviours may seem commonplace, they are not as easily put into practice as they may appear.

3.5 Assessment of information skills courses

Choosing an appropriate assessment model should ideally be aligned to the learning objectives of any teaching activities. Walsh (2011) discussed how cognitive outcomes which measure changes in knowledge, are standard in many instruction programmes, but that behavioural outcomes, that measure changes in actions, and affective outcomes that measure changes in attitudes and values, may be of equal importance (p. 57). The constructive alignment model (Biggs 1999) advocates that the teacher plans the teaching activities to match the individual lesson's curriculum objectives, teaches according to his or her plan before evaluating how well the teaching activities matched the learning outcomes, whether the right assessment tools were used to measure the learning outcomes, and how well the target acted on verbs like "hypothesise", "explain", "solve" and "analyse" (p. 65). This model can be implemented in a collaborative effort between teacher and librarian. Teachers and librarians would therefore first agree on what learning outcomes would be of most interest, then choose an instructional model and then choose an assessment tool that will help determine if the instruction had any effect on the students. This approach, however, depends on there being good faculty-library collaboration, and an investment of time and other resources.

Walsh (2011) examined 126 articles about assessment tools for information literacy training. The tools and methods he found to be used were divided between multiple choice, questionnaires, quiz/test, portfolio and simulations. Most of the standardised assessments, such as Project SAILS (2012), iSkills (2008) and ILT (ETS 2013), are summative assessments that require a substantial investment in time and effort. Since many librarians have limited time available in class, and are often required to deliver standalone 'one-shot' instruction sessions, these assessments may not be particularly practical to use. Broussard (Madison Assessment 2013) made an excellent point when she called for more mini-assessment and an increased focus on formative assessment. The design of the IL-HUMASS survey (Pinto 2010) is interesting because it had a self-assessment approach where the students were asked a series of questions to answer with regards to motivation, self-efficacy and source of learning. Bruce et al's well-known "Six frames" (2006) included "View of assessment" as one of the issues to be addressed within each frame, and they asked "How can we help students learn through assessment?" (p. 14).

Megan Oakleaf et al addressed a common problem when they wrote about how librarians tend to see assessment as an "add on", as "the last part of the learning cycle that no one has time for" (2012, p. 10). They used the term "active assessment", and claimed that "if you're not assessing, you're not teaching" (p. 10). Oakleaf's material point was that assessment and teaching go hand in hand, and a good teacher will find a way of getting the students actively engaged while collecting data on their progress, thus both teaching and assessing at simultaneously.

Assessment is perhaps key to faculty collaboration. The theory, seen from a librarian's point of view, is that if the students benefit from embedded information skills courses, and demonstrate their new skills through their papers, essays, and through direct feedback, the faculty will be more interested in developing and nurturing the collaboration. Using good assessment models are therefore at the heart of understanding the students' needs, the faculty's wishes and the librarian's possibilities.

4. Results from the experiments/case studies at GUC

In previous years, co-teaching was the only option for librarians at GUC, and even to be recognised as a "co-teacher" was, and in some cases still is, not easy. Since the author's experiments as part of the work for her Master's thesis, a change has happened, and the case studies described here shows that a team-teaching effort is possible and even sought after by several faculty members.

4.1 The first case study

The first case study was conducted for 18 radiography students in their third and final year. The tutor approach was used. This approach was executed the first time in 2010, then adjusted and run again in a modified format in 2011 and 2012. The work started with a preliminary meeting between the librarian and the two teachers involved in the module ('Oncology and related modalities'). The assignments and overall goals for the module were discussed. The librarian presented all the students with a pre-test, based on the Beile Test of Information Literacy (Beile 2005), and after a randomised division of the students into a test group and a control group, gave the first introductory lecture to the students in the test group (9 students). The Critical Incident Questionnaire (CIQ) (Brookfield 1995) was introduced during the first lecture, and it was used during the following six weeks of teaching. The librarian met the students once a week for six weeks, tutoring in groups most of the time. The groups received feedback on their writing, their search strategies, sources etc. After every session they used the CIQ forms to express what they had found most engaging/disengaging, what action the teacher took to make things more affirming/puzzling and what surprised them the most. The answers they handed in formed their own notes for a reflection paper they handed in at the end of the module. The librarian received feedback on many things, including design of the case, teaching methods, content and how the time was spent in class. This feedback was used to redesign the teaching methods, and the following year (2011) the tutor approach was established and used. A post-test for both the test group and the control group was performed. Interviews with the two teachers confirmed that the students who had participated in the case study showed an improved awareness of, and a more mature attitude toward, the writing process. The post-test did not show any significant improvement in knowledge in the test group compared to the control group. However, this could be due to the students working across groups on different projects at the same time, and a certain knowledge transfer from the test group to the control group could have taken place. The reflective short paper that the test group wrote as a summary of their CIQ forms also showed that the students had learned much from the practical advice and tutorials on academic writing (Øvern 2013). Due to the time consuming nature of this approach, the librarian found that the tutor approach should only be used for smaller classes (<30 students).

In 2011 and 2012 the librarian gave an introductory lecture, after which the students handed in their research questions, followed by tutor sessions, one for each of the six groups of students. The students then received written and oral feedback on their drafts for a scholarly article, and this was followed up in a separate closing lecture.

The results from this case study showed that:

- The students were pleasantly surprised about the knowledge level of the librarian;
- The students were surprised at the amount of help they could get with their written assignments;
- The students greatly appreciated the thorough feedback on their written assignments, and several stated that they wished they could have received this kind of practical writing training much earlier in their studies;
- The students were particularly interested in tools to make their papers better, like a reference manager (EndNote);
- The teachers were interested in collaborating with the librarian, and did not feel that the librarian overstepped the mark;
- The teachers were surprised at the level of engagement from the librarian, and they welcomed feedback on the assignments and understanding what the students found the most difficult about them;

- The students needed more training in writing academic papers, and they needed thorough feedback on anything from structuring the text and coherent arguments to using good sources and citing correctly;
- The original plan for the approach, as done in 2010, was too time consuming, and the revised plan, as done in 2011 and 2012, suited all parties better.

4.2 The second case study

The second case study took place during the autumn semester of 2013. Planning started in April 2013 when a teacher asked the library for help teaching literature searching to her students on the course 'Research planning and advanced project planning'; a part of the Master of Interaction Design taught at GUC. Approximately 10 students were involved in the whole case study (the number varied slightly due to some seminars being taught with other programmes). The librarian and the teacher decided on a more embedded approach, using the team-teaching approach as a starting point. The teacher had already decided on giving the students a literature review as the main assignment. The teacher and the librarian discussed several options on the subject for the literature review, and agreed on a lesson plan for the autumn semester.

The course consisted of four seminars. The librarian and the teacher attended every seminar during the course. During the seminars both teacher and librarian were teaching, but the responsibility for content lay with one or the other. The teacher was responsible for two seminars and the librarian was responsible for the other two. A broad range of subjects was discussed, from course-specific content such as wearable technology to performing literature searches and referencing.

The teacher undertook an informal evaluation, where she asked the students what they had found most interesting, what they had learned and what overall impressions they were left with, at the end of the course, but due to a communication error the librarian did not take part in this. The librarian undertook a separate small, informal evaluation, like Broussard (2013) suggests, with some of the students and the teacher. The teacher and the librarian both expressed that it had been an instructive experience, and that they had both learned much from each other and the process itself.

The results from this case study showed that:

- Team-teaching can be a good way of exploring the faculty-library collaboration;
- Team-teaching can make the knowledge of both teacher and librarian more visible;
- The students perceived the librarian and teacher as equals (and regarded both as teachers);
- Being part of the planning process proved useful and necessary for the librarian, as she could better understand the overall goals of the course;
- The teacher discovered that the librarian could analyse subject-related articles better than students, even though the librarian had no previous knowledge on the subject (interaction design); simply because the librarian understood the academic genres – and this led to a discussion on academic writing and genres;
- The students found the literature review assignment good training for the master's thesis;
- The students found doing a literature review more difficult and less interesting than they had anticipated (but they still regarded it as a useful exercise).

The Master's programme is currently reviewing some of its courses, so no follow-up of this approach is planned at this time. However, the lessons learned and the professional relationship between the teacher and the librarian that were established during the case study will be taken into consideration for further projects in the programme.

4.3 Assessment in the case studies

Both case studies had elements of assessment from either librarian or teacher, or both, but the most useful, from the librarian's point of view, was the formative assessment used with the Critical Incident Questionnaires (CIQ) in the first study. Having students describe what they had found most engaging/disengaging, what action the teacher took to make things more affirming/puzzling and what surprised them the most during class, and then having to summarise it and reflect on it in a final short paper, gave the librarian and the students more information on how to build a useful and interesting course. The teachers involved in this study were very interested in the outcomes of the CIQ forms, and several other teachers have also requested more information about the use of the forms. This formative assessment appealed to both teachers and students in the case study.

The author has tried different kinds of assessment in other IL teaching, such as using Google Forms as an audience-response system and the more traditional 'after class questionnaires'. While these kinds of assessment can be very useful, the author believes in encouraging the student to reflect on the sessions, and this is easier to do with an assessment form like CIQ. As time and access to students are usually limited, a simpler form of assessment or just using CIQ once or twice during the course may still provide the librarian and teacher with valuable information on how the students perceive the collaboration, the content and the teaching style.

5. Discussion

Finding a way to work with faculty staff in a way that makes sense to all parties can be difficult, but the case studies alongside the literature review suggest there are several factors that can make this collaboration work well.

5.1 Finding the collaborative path

Many papers describe the often problematic collaboration between librarians and faculty members (Boon et al. 2007; Christiansen et al. 2004; Ekstrand and Seebass 2009; Kotter 1999; McGuinness 2006). Even though several of them also mention projects and cases where the collaboration works well, most of the issues that are addressed are based on the same common problems; namely lack of leadership support, little or no curriculum integration, librarians questioning their own competence to teach, and teachers' lack of understanding of the librarians' knowledge base and potential role in the classroom.

At GUC the librarian found that teachers were willing, and even eager, to participate in collaborative activities when presented with the opportunity, as illustrated by the two case studies. In the first case study, some teachers in the nursing faculty were troubled by students' use of the library's resources, and they felt unsure of how much they might involve the librarians. Nursing students account for 35 percent of the student body at GUC, but they are represented by almost 60 percent of the library's teaching activities. The teachers did not want to further overload the library staff. The librarian read course descriptions and contacted several teachers, and one dean of a faculty, to suggest a suitable course where collaboration could take place.

In some cases teachers have taken the initiative to start collaborating, for example in the second case study described in this article. However, this presupposes knowledge of the library, the librarians' roles and the resources available in the library. It can often be easier for the librarian to be proactive and suggest suitable interventions. The problem at GUC has been that even with teacher support, the collaboration depends on the individual teacher, so whenever a teacher leaves or moves to another programme, the librarian has to start over to build relationships.

Getting IL or information skills as a mandatory part of all course descriptions has proven a more difficult challenge. At GUC librarians have participated in meetings with the university college leadership to try to promote the necessity of getting IL or information skills descriptions in all course plans. It is the author's belief that having a mandatory IL or information skills section in all course descriptions could both help raise general awareness amongst teachers and be beneficial when starting collaboration. Having a common starting point is important. While there are many frameworks and models to support teaching IL and information skills, e.g. SCONUL Seven Pillars (SCONUL 2012), ACRL Information Literacy Competency Standards for Higher Education (Association of College & Research Libraries 2006), and Australian and New Zealand Information Literacy Framework (Australian and New Zealand Institute for Information Literacy 2004), many libraries have yet to implement a mandate for including IL in all courses (as is the goal at GUC) despite the various national frameworks. There are those who have succeeded with the implementation, such as the University of Sheffield and Loughborough University who use SCONUL's Seven Pillars, and James Madison University who have developed a multiple-choice computerised program based on ACRL's standards. Cardiff University is known for its focus on embedded information literacy. In their Digital and Information Literacy Strategy (Cardiff University 2012) they cite the Education Strategy where "ensuring students are prepared for study and employment in the digital age, with a range of learning literacies embedded into the curriculum in addition to the subject knowledge" (p. 2) is an expressed goal. Still, relatively few institutions report that they have pervasive embedded programmes at their respective higher education institutions, and many of the projects described in the literature review have been done as stand-alone projects or single-effort studies, particularly in Norway and the rest of Scandinavia.

Alison Head (2014; Head and Eisenberg 2009) found that in the future librarians would be more involved in creating context for and with students. Head and Eisenberg (2009) constructed a context taxonomy based on interviews with students. They identified four different kinds of context that students tried to find during their research; the big picture, language, situational and information gathering. It may be safe to assume that in many libraries, the librarians have traditionally been mostly involved at the fourth context, namely information gathering. According to Head (2014) this may change. At GUCL the librarians are already at a point where they are more involved in at least two or three of these contexts. More and more of the tutor sessions given, both in the two case studies described in this paper, and in general, are used to get the students started, and to present the 'big picture'. The language context is also one that librarians get involved in more commonly at GUCL. The librarians at GUCL frequently find that students know how to handle the technical part of searching, such as knowing how to use the databases, but they have problems with finding the right search terms. Without the proper vocabulary and understanding of the jargon used within their field, the students are lost, and cannot find either the big picture or carry out the information gathering. How can librarians who are not subject specialists help the students with the language context? There may not be a single solution to this, but it is the author's belief that the knowledge of genres and the experience in using databases will be a great help in assisting students. As mentioned in the second case study, the librarian found that her knowledge of the academic genre helped her analyse journal articles, and it surprised the teacher that knowing the genre would be so important to understand context. Asking faculty staff about learning outcomes could also be of use when understanding language.

5.2 Tutor approach versus team-teaching approach

Team-teaching has several advantages, and is particularly good at exposing students to different views on writing processes. The teacher and the librarian can offer different perspectives and suggest different methods to be used, and they can support each other; where one can act as an expert the other can be a novice and vice versa. Still, the tutoring approach is more effective and direct if the objective is to help students understand the academic writing process. This is because the librarian can interact and give direct feedback on a specific text.

Several students and one teacher involved in the second case study expressed surprise when the librarian could analyse a scholarly article *just as well* or even *better* than them. The teacher later said that she had not until that moment in class understood just how important the meta-knowledge on genre had been. She expressed that while she had been impressed by the librarian's knowledge, she had not expected that the ability to understand the academic style and genre could be vital in understanding the text itself. This ability to analyse academic papers, even with minimal or non-existing subject knowledge, was an eye-opener to the teacher. This has also influenced the librarian's teaching going forward. Genre and genre expectations are now usually mentioned explicitly during IL classes.

5.3 Where do we go from here?

The GUC Library has the strategic aim of being embedded in the academic contexts of the university. This is a meticulous effort that includes lobbying in meetings with the university leadership, arranging courses and seminars for teachers, meetings with students, teachers, administrators and various committees. The librarian is trying to get IL included in all course descriptions, which might make it easier for librarians to reach out to teachers, and could heighten teachers' awareness of the librarians as collaborators. Getting IL in as a part of all course descriptions does not mean that librarians at GUCL will conduct all teaching activities. Most students in undergraduate courses will receive much of this training from their teachers. The pedagogical approaches the author has used could be used by individual teachers or teams of teachers as well as in collaboration efforts with the library. 'Teaching the teachers' will be a priority. The librarian will be able to support teachers to develop plans with a clear progression, and she will also continue to use the pedagogical approaches on selected courses. The pedagogical platform, currently being finalised and reviewed, has already attracted some attention from the university college leadership. It is hoped that this platform can become a valuable tool to aid discussions with faculty staff on expectations from the library and the resource situation as a whole.

6. Conclusion

Good faculty-library collaboration is vital when it comes to teaching students the necessary information skills, particularly because of the importance of timing (McGuinness 2011; Jacobson and Mark 2000; Sanborn 2005). This collaboration has not always been smooth and easy, as the librarians can be viewed as mere service-providers, not teachers. There can also be an imbalance in the relationship between faculty staff and librarians, where the librarians usually know more about faculty staff than vice versa, and the only ones finding this imbalance problematic are the librarians. The different backgrounds and perspectives held by librarians and teachers could be of real value to the collaboration and, by extension, to students. These differences are under-communicated, but they could give the collaboration an extra dimension. Still, as faculty staff and librarians have different opinions on the significance of the collaboration, particularly as some teachers think IL is something learned "gradually and intuitively" (McGuinness 2006, p. 580), it is hard to institutionalise any collaborative efforts. Particularly when using the tutor approach, both teachers and the librarian seemed anxious about getting into something that would be time consuming and would put extra pressure on already strained resources. Trust, timing, willingness to share knowledge, and a shared understanding of purpose, are all vital to the collaboration (Amante et al. 2013; Sanborn 2005; Wenger and Hornyak 1999). The most important factors are that the parties accept each other as equals (Ekstrand and Seebass 2005) and that they have a joint commitment to the project (Amante et al. 2013).

The findings from the case studies the author undertook at GUC suggest that faculty staff were impressed with the librarian's knowledge and they quickly became comfortable with team-teaching and/or leaving the librarian in charge of the students. Through the course of the study the librarian became aware of the importance of embedding information skills, and assessment of such skills,

into all course descriptions. Consequently she is currently working with the Committee of Quality in Studies at GUC to make this happen. Students were generally satisfied with the teaching they had received, but it was difficult to detect an improvement in their overall skills. The students expressed surprise over the amount of help the librarian could offer, and most did not reflect on being taught by a librarian rather than a faculty staff member. Most students saw the librarian and teacher as equals, and viewed both as teachers.

While some academic libraries have implemented institution-wide, embedded, collaborative IL initiatives with success, many of the studies found and used in this article were stand-alone or single-effort studies. This means that single faculty members and librarians carry out most collaboration efforts; there is little top-down structure to support these efforts. Getting a mandatory section to address IL in all course descriptions could help initiate more collaboration, and it could be a starting point for outreach efforts made at GUC. The two pedagogical approaches in use at GUC have helped the library set some principles for teaching, amongst others to make one-shot instructions a thing of the past. It has also helped shape more meaningful collaborations with faculty staff.

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