

# How librarian involvement enhances students' information literacy

*Best practice article*

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## Abstract

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In 2017, 120 University West nursing students wrote a scientific report as an examination. Merely 30 students passed on their first attempt and one of the identified shortcomings concerned information literacy. In collaboration with the course coordinators, the liaison librarian modified the course design adding new contents as well as new assignments to create a kickstart for the students who lack the information literacy required in higher education. The module in information literacy training was extended to provide the students with the skills needed for successful results and thus making them better equipped for the rest of their studies, as well as for lifelong learning. This best practice article accounts for the course development, focusing on library instruction. Furthermore, it posits that the principles of andragogy, student activating methods and the united effort to meet the students where they are, have enhanced their learning process and consequently their information literacy. In 2020 and 2021, the students who passed the scientific report examination on their first attempt more than doubled. Due to librarian involvement, new pedagogical approaches, and a fruitful collaboration with course coordinators, these students' information literacy skills seem to have improved.

**Keywords:** andragogy, collaboration, course development, information literacy, librarian as a facilitator, nursing education, student activating methods

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## Introduction

In Sweden information literacy, i.e., finding, evaluating, using, and applying information at a scientific level, is statutory in higher education (SFS 1992:1434). Like most of the Swedish university libraries, University West has librarians who teach information literacy on most of the educational programs.

The nursing program culminates in a bachelor's degree. At University West, 120 students start each semester. To cope with the requirements of their program (SFS 1993:100) as well as their future profession as nurses (Svensk Sjuksköterskeförening, 2017), the students need to become information literate. It is a relevant part of their lifelong learning (Head, 2013).

The first course, which last ten weeks has a strong theoretical approach focusing on the foundations of nursing. The intended learning outcomes relating to information literacy are also clearly stated in the syllabus. One of the goals relates to the students' ability to take a scientific approach in their studies (University West, 2019).

To meet the course criteria for passing, students must write a five pages report on their own in the end of the course, the layout and structure of which is that of a bachelor's thesis. In addition to this report, the students have other examinations.

Head (2013) demonstrated that information literacy knowledge transferal from earlier, often lower-level studies, was challenging for new students. The study showed that new students are unfamiliar with how academic libraries work. Students found it hard to search in databases effectively and struggled with reading and comprehending scholarly materials. One major problem identified was the fact that students experienced difficulties when trying to critique academic resources. Moreover, the students faced higher demands than during their previous studies. Head (2013) noticed that one session with library instruction was not sufficient. Learning takes time and requires effort.

According to Head (2013) library-faculty collaboration affects students' results in a positive direction. Interprofessional relationships entails more integration. The collaborative strategy at University West correlates to Head's (2013) findings as there has been a library-faculty collaboration throughout the course. Due to a low pass rate in 2017 the course coordinators and the liaison librarian altered the course content.

Previous efforts to address information literacy on this course consisted of two lectures. One focused on finding academic resources as well as doing a short presentation of the database Cinahl and included a workshop. The second lecture dealt with referencing and was held without any workshop. The librarian talked to the students without any major effort to encourage student participation.

Now, after the revisions of the course, the teachers offer lectures about the nursing profession, science and nursing theory, the research process, ethics, communication, and scientific writing. The assignments aim to strengthen the students' information literacy and the lectures in information literacy are linked to the course content and assignments. In addition, the liaison librarian has developed a set of five lectures including workshops and a quiz about how to reference sources correctly.

### **Theories used in practice**

**Andragogy, the adult learning theory.** It can be a challenge to get students interested and willing to attend lectures. To handle this the adult learning theory, also called andragogy, is used (Knowles et al., 2020).

Knowles et al. (2020), state that when a teacher meets adult learners he or she must

- know their course content and their tasks
- find the students where they are in terms of knowledge
- use their strengths and willingness to learn
- create a safe learning environment
- stand beside the students, not over
- activate them
- let them fail and succeed, help them learn
- give them feedback and
- be aware of how to talk to and with the students as adult learners

It is evident that the librarian needs to be aware of what the students already know, to be able to provide a toolbox filled with what students may need to complete their assignments. Knowles et al. (2020) and Kocevar-Weidinger et al. (2019), both concluded that if one can extract the students' prior knowledge in information literacy and build on this, the students will better understand how information literacy works in academia.

Kocevar-Weidinger et al. (2019) found that new students, thanks to their curiosity, can handle most things despite their initial lack of academic knowledge. The focus in the andragogy approach is on the students' strengths and willingness to learn. Students want to take responsibility for their own learning, and it is important that the lectures respond to a need, because then priority is given to learning. They need to understand the relevance and the utility of the new knowledge. Students are practitioners, and they learn by testing their knowledge. They need to be able to begin learning in their own reality based on their own needs (Knowles et al., 2020).

Cooke (2010) contemplates the work of an andragogical librarian and how this awareness of adult learning offers an effective design when planning library instruction. Biggs' (1996) constructive alignment was used when planning the five lectures. Constructive

alignment means making the students aware of the relevance of the course content, linking it to their assignments, and thus facilitating their learning. Biggs (1996) claims that constructive alignment improves both teaching and learning.

**Student activating methods.** Based on the idea of andragogy (Knowles et al., 2020) it was appropriate to use different student activating methods in the five lectures.

- University West offers active learning classrooms<sup>1</sup> where students are urged to interact and to be more active learners.
- Mentimeter<sup>2</sup>, an interactive presentation tool, is used. The students become activated when questions are asked.
- Q&A opportunities take place, during both lectures and workshops. Through the students' questions, the librarian gets to know the students, what they are thinking about and how they feel.

Knowles et al. (2020) and Gold (2005) talk about the importance of having an open and positive conversation. An active learning lecture may make some students uneasy. This is something the librarian needs to be aware of and putting the students at ease. Giving students instructions before, during and after each class is of the utmost importance. When they feel comfortable, they will hopefully interact and learn.

**The librarian as facilitator.** When applying the theory of adult learning and student activating methods the librarian also needs to change his or her approach in the classroom. Knowles et al. (2020) assert that the librarian needs to assume a different role than the traditional one, when it comes to adult education. Gold (2005) points out that the librarian should be a facilitator, rather than a teacher, and Baer (2021) sees the librarian as a coach or co-learner alongside the students. This seems to be the way to succeed when applying the andragogical approach to this course development.

Cooke (2010) indicates that the learning environment must be open and respectful. The students need to feel comfortable. The psychological climate in the room is just as important as the intellectual and physical environment. It is the librarian who should strive for a meaningful conversation with the students, asking about their thoughts and experiences, to facilitate conversations in the classroom and increase learning (Reale, 2018). Research also points out that this facilitating approach gets the students more involved in the lesson (Cooke, 2018). Acting like a facilitator, instead of a regular teacher, will hopefully help the students learn.

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<sup>1</sup> <https://www.hv.se/en/meet-university-west/akademus/classrooms-and-studios/active-learning-classroom-alc/>

<sup>2</sup> <https://www.mentimeter.com/>

## **The new information literacy lectures**

With the new course content and assignments at hand, the librarian developed a set of five lectures including workshops and a reference quiz, using constructive alignment (Biggs, 1996). The librarian's job is to create a lecture that support these activities to help the students achieve the desired learning outcomes (Biggs, 1996). The lectures are put together with the adult learning theory in mind. During the lectures the librarian asks the students for feedback, their thoughts about the lectures and the content, and how they feel about it. The librarian tries to understand the students, make changes, and develops the content without delay. Student activating methods are used and the librarian acts as a facilitator to promote learning.

The lectures are scheduled based on where in the course the students are so that they are perceived as relevant. In the workshops students are given an opportunity to work with the current task and receive support based on their questions.

Lecture one is a brief library introduction. The students receive information about the library and the librarian puts information literacy in an academic and occupational context for a deeper understanding of the relevance. The librarian also presents the five lectures, so the students know why it is important to participate and become motivated according to the adult learning theory. Mentimeter is used and the students' questions are answered.

The second lecture is about APA 7 reference management in an active learning classroom. The active learning classroom provides the opportunity to do reference exercises in smaller groups alternating with the librarian presenting course content, asking, and answering questions. The students work, talk, and learn together. The librarian also introduces a mandatory digital reference quiz with 13 multiple choice questions. In this lecture, the andragogical approach and the facilitating librarian are present thanks to the interaction that takes place in the student activating classroom.

The students attend a seminar on scientific articles and as preparation, in lecture three, they are supposed to find, read and review two scientific articles. In lecture four the students need to search for, read, and understand a scientific article that is used in the writing of the report. They are supposed to connect their report results to the results in the article. These two lectures focus on how and where to search for references and scientific articles, their structure and how to read this sort of text. These lectures are full of information and Mentimeter is used to get the students more involved. The lectures end with workshops where the students are supposed to find articles and ask questions. Mentimeter is used even here. It makes the students more active when answering and asking questions. The librarian focuses the students' experiences and questions to be able to meet the students as adult learners.

The fifth lecture is a five-hour open workshop. Librarians, writing instructors from the Language Resource Centre and Supplemental Instruction Leaders<sup>3</sup> work together in this workshop to aid the students in finishing their reports on time. In this lecture the librarian gets the opportunity to talk with the students even more to get to know them.

### The results of writing the report

After the course development, the students' report results have improved (see Figure 1). The results show that after the course development between 59% and 84% of the students writing reports have passed on their first try. The results from 2017 are less certain in terms of the number of students who submitted their first attempt, due to a change in the learning management system. There were 120 students, but the number of submissions is no longer available.

Table 1.

*Results after grading the reports of the student' first attempt.*

Semester / Results	Student submissions	Number of students who passed	% of students who passed
Autumn 2017	120	30	25%
Spring 2020	108	64	59%
Autumn 2020	109	80	73%
Spring 2021	100	84	84%
Autumn 2021	96	65	68%

### Reflections

This approach takes a lot of time, approximately 100 hours every semester, but it is worth it when the grades on the reports improve. However, one cannot say that these results depend only on the course development with a focus on more information literacy, the andragogical approach, the student activating methods and the librarian working as a facilitator. The course coordinators and the teachers on the course have done their best to help the students succeed as well. Increasing the number of lectures alone may have affected the results, but even more might be needed. Whatever has affected outcomes for the better, the results are satisfactory.

Starting with this developmental change, the librarian saw a challenge in discovering the students' former information literacy knowledge. By applying the adult learning theory and using student activating methods the students' knowledge became obvious in the lectures thanks to the conversation that took place. The considerations that existed were unjustified.

Studies show that students' information literacy is a prerequisite for and benefits students' learning in a subject. Integrating students' knowledge in information literacy with the

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<sup>3</sup> The Supplemental Instruction Leader is a student who has completed the course and is trained to support the students so that they manage the harder parts of the course <https://www.hv.se/en/student/studies/engagera-dig-under-studietiden/si-leader/>

subject they are studying will hopefully provide in-depth learning overall (Anving et al., 2012). Gold (2005) also talks about the importance of students gaining knowledge of how to search for information to succeed in their studies in general. Hopefully, with some help from the librarian, the students realize this due to the new information literacy lectures.

Next semester, lecture three will be a flipped classroom activity, followed by a short Q&A session. Lectures two and four will collaborate more closely with the Language Resource Centre as the student reports show shortcomings in the students' academic reading skills.

Head (2013) talks about the importance of gaining information literacy over time and that it is learned in a progressive and contextual manner. In addition to these five lectures, students are offered library instruction lectures in semesters 2 and 5, with a focus on in-depth information seeking and systematic information seeking prior to their degree project. As Baer (2021) said, we need to plant seeds and make them grow over time.

## Conclusion

The purpose of developing this change to the course was to give the students the knowledge they need to successfully pass the course. This was done through more information literacy training early in their education. The theory of adult learning by Knowles et al. (2020) and the student activating methods contribute to more challenging lectures, both for the librarian, as a facilitator, and for the students. When using the andragogical approach, Cooke (2010) claims that it will be easier for the students to make the information provided their own knowledge, when processing it - not just for now, but for their lifelong learning.

As a development-minded librarian, it is motivating and gratifying to see what this development has led to. Most importantly, the relationship with the students has improved, when really talking with them. As a librarian you might be familiar with the phrase 'Know your database'. My message is: 'Know your students!'

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