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The Polytechnic Predicament: An Exploratory Study in Tutor Perceptions of Information Literacy Le problème polytechnique : une étude exploratoire des perceptions des tuteurs face à la maîtrise de l'information

Douglas Buchanan, Deirdre Grace, Amanda Grey and Jeff Verbeem

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Article abstract

The purpose of this exploratory case study is to consider from peer tutors' perspective the relevance of information literacy (IL) in their roles as tutors, students and in their everyday lives. The research used a qualitative methodology, wherein nine participants shared thoughts and reflections in course discussion forums in response to six online modules, each outlining one the the six frames of the ACRL information literacy framework. The data-gathering phase of the study was bookended by focus groups that were also recorded. Analysis of these various discussions reveals that while tutors see the relevance of IL in their everyday lives, their responses in terms of their roles as tutors and students varies depending on the nature of their program. The need to budget research time efficiently in response to a heavy course load prevents some from pursuing information more broadly or deeply than strictly necessary. The paper considers implications of these insights for further inquiry into the library's role in advancing IL development in a polytechnical environment.

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The Polytechnic Predicament: An Exploratory Study in Tutor Perceptions of Information Literacy

Le problème polytechnique : Une étude exploratoire des perceptions des tuteurs face à la maîtrise de l'information

Douglas Buchanan Learning Commons Coordinator British Columbia Institute of Technology dbuchanan34@bcit.ca

Deirdre Grace
Librarian
British Columbia Institute of Technology
Deirdre Grace@bcit.ca

Amanda Grey
Open Education Strategist
Kwantlen Polytechnic University
Amanda.Grey@kpu.ca

Jeff Verbeem
Librarian
British Columbia Institute of Technology
jverbeem@bcit.ca

Abstract / Résumé

The purpose of this exploratory case study is to consider from peer tutors' perspectives the relevance of information literacy (IL) in their roles as tutors, students and in their everyday lives. The research used a qualitative methodology, wherein nine participants shared thoughts and reflections in course discussion forums in response to six online modules, each outlining one of the six frames of the ACRL information literacy

framework. The data-gathering phase of the study was bookended by focus groups that were also recorded. Analysis of these various discussions reveals that while tutors see the relevance of IL in their everyday lives, their responses in terms of their roles as tutors and students varies depending on the nature of their program. The need to budget research time efficiently in response to a heavy course load prevents some from pursuing information more broadly or deeply than strictly necessary. The paper considers implications of these insights for further inquiry into the library's role in advancing IL development in a polytechnical environment.

L'objectif de cette étude de cas exploratoire est de tenir compte de la perspective qu'ont les tuteurs pairs de la pertinence de la maîtrise de l'information dans leur rôle en tant que tuteur et étudiant ainsi que dans leur quotidien. Cette étude a utilisé une méthodologie qualitative par laquelle neuf participants ont partagé leurs pensées et leurs réflexions dans le cadre d'un forum de discussion lié à un cours en réponse à six modules en ligne, chacun portant sur l'un des six cadres du référentiel de compétences informationnelles de l'ACRL. La phase de collecte de données de l'étude a été complétée par des groupes de discussion qui ont également été enregistrés. L'analyse de ces diverses discussions révèle que même si les tuteurs voient la pertinence de la maîtrise de l'information pour leur vie quotidienne, leurs réponses liées à leur rôle en tant que tuteur et étudiant varient selon la nature de leur programme. Le fait d'allouer efficacement du temps de recherche en réponse à une lourde charge de cours empêche certains de rechercher des informations plus poussées que ce qui est strictement nécessaire. Cet article examine les implications de ces constatations sur d'autres études cherchant à explorer le rôle de la bibliothèque dans la promotion du développement des compétences informationnelles dans un établissement polytechnique.

Keywords / Mots-clés

peer tutoring, information literacy, case studies, academic libraries, technical education

tutorat par les pairs, maîtrise de l'information, étude de cas, bibliothèques universitaires, formation polytechnique

Introduction

At the British Columbia Institute of Technology (BCIT), peer tutors and librarians share a common workplace and similar mission in supporting student success, but real interaction is limited; we conduct our work separately. This study began as a follow-up to Verbeem and Harper's (2020) study at Zayed University in Dubai, which looked at information literacy (IL) in peer tutoring programs. As with that study, our initial goal was fairly narrow. We wanted to know more about how tutors experience IL, with an eye towards the possibility of future collaboration to develop student research skills.

As the researchers (a Learning Commons Coordinator plus two and later three Librarians) set about designing the study, we realized that with a handful of participants,

we had the opportunity to broaden our scope to look at, for example, the priority of supporting lifelong learning for students pursuing technical education. We were also interested in their approach to the struggles many of us face evaluating information in a time of political turmoil and a worldwide pandemic. As successful students, tutors are ideal 'informants' on these issues.

Due to COVID-19, tutors were recruited and research was conducted entirely online. Using openly available material, a six-week online course was created wherein participants learned about and discussed the six frames of the Association of College & Research Libraries (ACRL) *Framework for Information Literacy for Higher Education* (ACRL, 2015) (hereafter *Framework*) and considered them in terms of their peer tutoring role, their student role, and in their everyday lives. Although working with a small sample, a large amount of data was collected in the form of participant comments. The results are often contradictory and don't lead to conclusive findings; however, they do offer a thought-provoking peek into peer-to-peer learning and suggest directions for further study into the role of IL in polytechnical education.

Institutional Context

BCIT is a polytechnic whose main campus is located on the unceded lands of the Coast Salish peoples in Burnaby, British Columbia, Canada. It has a full-time student population of almost 17,000 and a part-time complement of over 28,000 students. Students can work towards a certificate, diploma, bachelor's degree, master's degree, or trades credential. The majority of full-time students are in a two-year diploma program (BCIT, 2021). The institution is technology and trades focused, offering programs in business, health sciences, engineering, computer science, construction and transportation. The programs are demanding—students in a full-time program have a prescribed timetable with a heavy load of lectures and labs. Not all students arrive directly from secondary education but often have previously completed some post-secondary studies and arrive at BCIT with the purpose of career-focused education (BCIT, 2019).

Participants in this study are all peer tutors working within the BCIT Learning Commons, a division of Library Services. Tutors are typically high-performing students in the second year of their program. While tutors mainly focus on specific subject area support, they also provide general guidance on study skills.

IL Instruction in Polytechnical Education

The role of libraries in information literacy instruction in vocational and technical education has received little attention in the academic literature according to Aho et al. (2005) and Bird et al. (2012). Much of this literature addresses the community college context in the United States, and one theme that emerges is that vocational schools, including community colleges, attract a relatively higher proportion of non-traditional students than other types of post-secondary institutions (Aho et al., 2005; McCartney, 2012; Contrada, 2019). To the extent that vocational students are more mature and

career-focused than their average post-secondary peer, they may expect to see a greater real-world application of their learning (McCartney, 2012).

There are questions about how the *Framework* relates to vocational education. For example, a national survey of community college librarians in the United States by Wengler and Wolff-Eisenberg (2020) showed that while 67% of respondents saw the relevance of the *Framework* to community colleges, only 10% had extensively altered their instructional approach because of the *Framework*, and 78% agreed or strongly agreed with the idea of creating a version of the *Framework* for community colleges.

In terms of information literacy in everyday life, Martzoukou and Abdi's review (2017) highlights the importance of everyday information literacy and differentiates between "contextual information literacy" and an "information literacy mindset." Library instruction focused on academic assignments may develop students' contextual information literacy for a very specific purpose but not assist with their navigating the information landscape outside of the academic setting. Kocevar-Weidinger et al. (2019) connect the everyday to the academic and demonstrate how to scaffold first-year students' existing information-seeking practices used for tasks such as online travel planning or health and political research into skills needed for academic research. This builds a one-way bridge from the everyday to the academic. Bartlett et al. (2020) investigate "whether information-seeking and information literacy skills transfer from the academic to everyday-life information domains" (p. 403), and their early analysis of undergraduate survey responses indicates differences in the frequency of use of source types for academic and everyday life purposes.

Research Approach

We originally recruited ten participants for our study, but one participant elected to leave the study early. Participants represented a cross section of program areas, from business and IT to nursing and aircraft maintenance. We were unfortunately unable to recruit any writing tutors.

Our goal was to identify themes that ran through the participants' responses to the ACRL's *Framework for Information Literacy for Higher Education* (2015). We realized from the beginning that tutorials would be necessary in order to familiarize participants quickly with the core concepts of information literacy. After considering a number of free internet resources, we received permission to reuse and remix McMaster Libraries' video series *How Library Stuff Works* and the blogpost series *Frame of the Day* by Emily Metcalf at the library at Texas A&M. We integrated these materials into a course we created on the institute's learning management system, with each module focusing on one of the IL frames, and enrolled our participants.

At the launch of the study, participants were asked to complete a short survey to create a baseline for previous information literacy learning/library/research experience and confidence. We then conducted an initial virtual synchronous focus group meeting with participants to explain their roles and the goals of the study. Participants were then presented questions about tutors' relationship and understanding of IL.

Every subsequent week, the research team posted a module explaining one of the six information literacy frames. Participants were invited to respond to the following three questions in a discussion forum:

How does the frame relate to your experience as

A student?

A tutor?

In everyday life?

Participants were encouraged to read and comment on others' posts. In this way, we hoped to create an online asynchronous focus group where participants would not only share their own ideas but respond to others' ideas.

Finally, after all the frames had been presented and discussed, the participants attended a follow-up focus group to reflect collectively on this learning experience overall and how it applied to their tutoring practice. Between the focus groups and the online discussions, a considerable number of participant comments, opinions, and insights were collected.

Participant Insights

The initial survey revealed that while exposure to library skills instruction varied outside their experience at BCIT, seven of the nine had received between two and four Library orientations as BCIT students. This experience translated into seven students using the Library databases at least once for school assignments. Around half did not know of their program's research guides or did not use them. As tutors, six had never referred a tutee to a Library resource.

As we analyzed the data from the focus groups and IL modules, the research team realized that identifying strong themes among participants would be difficult given the low number of participants, almost all of whom were studying in different subject areas. Participants' experience of information literacy varied greatly, at least in the student/tutor realms, depending on their subject major. With our goal of exploratory research in mind, we present the following insights as possible points of focus for future research.

IL & the Student Role

Participants saw value in iterative searching because information resources provided in their courses were seen as limited, whereas further inquiry could expose them to alternate viewpoints and assist in keeping current with new developments in their field. However, participants also felt constrained from engaging in research of greater breadth and depth due to time pressures. In fact, responding to the student role, the one consistent and recurring theme in the responses is the restrictions upon research that result from tight deadlines and a heavy workload. Most participants felt that students are

forced to balance efficiency with effectiveness, and that this can have a direct effect upon the depth and quality of their academic research.

It would be ideal to spend more time choosing references. The problem is . . . I usually have so many assignments to work on, that often I shorten the research time and end up working on a somewhat restricted range of sources. (Participant 6)

For some participants, this reality brought into focus the importance of knowing how to filter out unusable information and how to use tools like online bookmarks to return to useful information and save time.

I personally think the student's ability to . . . to filter out unnecessary information determines how well that student can succeed in research paper writing. . . . If a student knows how to sweep away unrelated information, this will save him/her so much time and effort that can be used somewhere else. (Participant 3)

Reflecting the various subjects represented in the study, participants agreed the construction of authority can be discipline-specific, and academic sources are not always considered to be the best authority. In some practical trades, for example, authority is clearly created from documentation, regulations, or standards, but for other disciplines it is less concrete.

I, as a technician, give authority to the manufacturers and Canadian governments. I know how reliable the manufacturers' manuals and government's standards are so I only use those references when doing any kind of project on an aircraft. (Participant 3)

IL & the Tutor Role

Some participants felt that students do not receive regular or adequate training on how to approach research while others indicated it was something that they learned during their program. Tutors indicated a number of specific ways to support students with information research. For example, they could point out which databases are available, how to access them, how to perform keyword searches, how to use operators, and strategies for refining a search. Tutors had an awareness of their own skill limits in this area as well as other resources for support.

As a tutor, I feel like we are a part of our tutees "strategic exploration" for help/advice about a particular academic topic. . . . While we aren't experts in our field, if we aren't able to answer their questions, we can inform our tutees about who can help them in their strategy . . . such as the librarians! (Participant 1)

Some participants noticed similarities between the research process and the peer tutoring process. Both, after all, involve breaking down large questions into smaller subquestions, developing effective questions, and recasting. In the end, both are part of a conversation.

As a tutor, I've always tried to encourage conversation as I think the back-andforth is quite valuable. For example, if someone asks me a question or shows me where they're stuck, I often ask them to talk me through what they've tried so far . . . Being able to describe your problem is an often-forgotten part of problem solving. (Participant 2)

IL & Everyday Lives

Participant responses indicated an awareness that critical thinking skills learned in school could be used in everyday life when consuming information. (There was little reference to their role in producing information.) This was seen as especially critical in an age where people are regularly (over)exposed to (mis)information: "Governments, news media and influencers tend to contaminate the news with their particular views and interests" (Comment from Participant 6).

Some participants voiced concern that in social situations and on social media, many people accept information without seeking further knowledge and are influenced by how information is presented rather than its accuracy. However, tutors generally appeared confident in their own abilities in this area.

Participants discussed the need to balance between being open to new or unanticipated information and efficiency, focusing on information sources that are appropriate for their need. They highlighted the necessity of maintaining a stance of inquiry, being creative in searching, and being open to novel perspectives and different authorities.

Everyday, during our conversations with somebody (our friend, college, family member, and etc.), other people arrive and they want to join our conversation. So we should make sure that we give them enough and exact information to join the conversation. Also, we should keep this concept in mind that everyone should have a seat in [sic] the table as we can see some people who don't let other people join their conversations and they simply ignore others. (Participant 9)

Discussion

A dominant theme brought up by the tutors was time. Participants acknowledged the importance of information literacy, but observed that the ideal approach of looking for a variety of sources and engaging with the content is not practical when confronted with the reality of their course loads and deadlines. Rather than finding reliable, diverse, and varied sources, their focus shifts to finding whichever sources will help them get the assignment done quickly; searching becomes more specifically targeted to finishing their work rather than an exploration of ideas or genuine curiosity. Students are thus in a position where they know what they should be doing, and what they want to be doing, but are unable to follow through in a meaningful way.

Exacerbating time pressure is the feeling of some tutors that they did not have a structured instructional foundation in issues relating to information literacy. It's possible

that a one-time instructional session at the library is not sufficient. Badke (2009) argued, "we need to stop believing that anyone becomes information literate (even somewhat so) in an hour. It does not happen" (p. 49). More recently, Breakstone et al. (2018) noted, "teaching students to be careful consumers of online information will require a team effort and substantial amounts of time" (p. 31) and needs to be reinforced in classes with approaches specific to their discipline. For many instructional sessions, the librarian is asked by the course instructor to provide practical direction on how to access and use specific databases, which does not always leave time for overarching concepts like how to evaluate information or develop a research question.

Tutors are hired partly because of their success as students, and as tutors they are viewed by their peers as having a level of information fluency. However, participant tutors did not see themselves as being experts in the realm of information literacy, but they felt that, due primarily to their experience, they could support tutees in terms of functional literacy skills such as assessing the reliability of a source, formulating research questions, and using online search strategies. Participants shared a number of examples where they handled IL questions in tutoring sessions, indicating that they have developed a strong sense of information literacy, particularly in their chosen field. The guestion becomes where the lack of reported training and confidence comes from. Perhaps these library sessions are not interpreted in students' minds as involving information literacy. Or perhaps tutors do not equate these skills with information literacy, which can be perceived as a library-centric term. As tutors already support nonsubject-related study skills such as note-taking techniques or time management, information literacy could be seen as part of the soft skills they already support. This suggests that there may be value in including information literacy as part of their tutor training; this might help them feel more at ease when being perceived as a resource on information literacy.

The applicability and relevance of the *Framework* to vocation-focused education has been questioned by librarians in the field, and some of the participants' comments in the present study reflect this question. This is especially true of the frame 'Authority is Constructed and Contextual,' which implies that authority depends on the norms of the industry the student is preparing for. For students and tutors working on, for example, projects involving community-focused healthcare or diversity training for the workplace, maintaining an "attitude of informed skepticism and an openness to new perspectives, additional voices, and changes in schools of thought" (ACRL, 2015) might make perfect sense. But even this depends on whether these students have the time, have developed the skills to dig beyond the easy-to-find resources on Google, and have been shown how this digging will potentially enhance the quality of the project in their program industry.

However, these conditions do not necessarily apply in all fields of study. Participants in regulated fields are aware that their context can be restrictive in its conception of quality information; openness to varying perspectives will not necessarily be rewarded in trades like aviation maintenance where the authorities involved are governing bodies like Transport Canada, which enforces policies, laws, and regulations for the industry,

including training providers and aircraft manufacturers whose maintenance publications are the only resource to consult for certain tasks. Polytechnic students' information needs and how they fulfill them can be very different not only from those of general university students, but also from students at the same polytechnic studying in other subject areas.

Conclusion

This study suggests many possible directions for future research on the applicability of the *Framework* for polytechnic students. If students are not broadening and deepening their queries because (a) it is not expected or rewarded, and in some fields actually discouraged, and (b) they don't have time to do it anyway, then where does that leave the *Framework*? As librarians and educators, it is easy to fall into the trap of conflating the needs of the moment with our defined role. We want to please our students, who want to excel on the assignment at hand, and instructors, who expect we will point their students in the direction of 'good' resources. Yet the message of the *Framework* is that information literacy is much more than a static set of best practices; it is a crucial component of one's lifelong learning. Participants did recognize and comment on the importance of information literacy in their everyday life. As educators in the learning commons and library, we are reminded of the importance of situating ourselves for students and instructors as partners in this larger journey.

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