INFORMATION BEHAVIOR OF IN-SERVICE TEACHERS

Maegan Heath

LIS 5053: Information Users in the Knowledge Society

May 8, 2018

Introduction

An important aspect of serving as a library and information studies (LIS) professional includes knowing the information behavior of various groups. This information is important to better understand how to serve populations and how to overcome barriers so people are able to access useful services and sources. The information behavior needed to be examined consists of people's needs and how they seek, share, give, manage, and use information.

There are many groups of people that rely on information frequently to complete their jobs effectively. One such group is teachers. Teachers access information regularly because being knowledgeable of standards, activities, resources, and more is important in completing their duties. This paper focuses on in-service teachers serving children in pre-kindergarten through twelfth grade. By reviewing literature and interviewing a teacher, LIS professionals can learn of the information needs of teachers, their methods for accessing and sharing information, and their uses of information. Understanding teachers' information behavior provides an opportunity to analyze diverse needs and to understand how various factors may impact information behavior.

Related Literature

Information Needs and Sources

Teachers have many information needs. Grade levels as well as students' developmental, behavioral, and academic needs differ. Standards, curriculum, and more can create needs, and teachers use various sources to satisfy these needs. One such need is information about interventions for children who struggle in academic areas such as reading. In satisfying these needs, Landrum, Cook, Tankersley, and Fitzgerald (2007) note that teachers value personal format over data-based because they find it more usable. Personal format refers to advice from

teachers reflecting on their teaching experiences, whereas data-based advice is research-based findings typically delivered through professional journals and studies.   Findings have shown that to fulfill intervention needs (techniques applied to help children overcome academic and cognitive difficulties) and other needs of teachers, colleagues are often the most preferred source (Landrum et al. 2007; Williams and Coles 2007). Shipman, Bannon, and Nunes-Bufford (2015) noted various personal contacts including teachers in the same department, department leaders, teachers outside the department, supervisors, and school librarians were consulted.   The reasoning for these preferred sources is that teachers need information on techniques that address the complex needs of students presented in understandable ways (Hew and Hara 2007). Literature shows teachers prefer information that is endorsed by experienced teachers and that depicts proven methods (Landrum et al. 2007). Williams and Coles (2007) also noted that the preferred sources were those accessed within the school itself, and this could be related to issues of trust. Colleagues have often been identified as a preferred source of information because of trust, experience, and ease of understanding; however, other sources have shown heavy use as well.

Internet resources were revealed to be the first or second preferred sources of teachers seeking information (Shipman et al. 2015; Williams and Cole 2007). Shipman et al. (2015) did not examine why websites and personal contact sources were preferred, but speculated reasons including: more efficient, easier, and an appealing structure. Teachers need sources such as the internet, colleagues, and other less frequented sources to find information for various reasons, including: class exercises or projects, lesson planning, assessment tools, news affecting the profession, action research on classroom practices, classroom management, insight into human relations, and research papers (Shipman et al 2015; Carroll et al. 2003).

The use of research by teachers is limited (Williams and Coles 2007; Shipman et al. 2015). This may be due to the recurring notion that teachers prefer sources that are immediately accessible (Williams and Coles 2007). Again, teachers have exhibited the need for information that is applicable, links to teaching practices, and is easy to access. (Williams and Coles 2007; Landrum et al. 2007). Research continues to be difficult to find for many, so it is a less efficient information source.

<div align="center">Information Sharing</div>

Information sharing is an important aspect of teacher effectiveness. Hew and Hara (2007) categorized the information shared into two main knowledge categories: book knowledge and practical knowledge. The type of knowledge shared the most is practical knowledge. Hew and Hara (2007) also noted sharing may be motivated by egoism, altruism, collectivism, principlism, respectful environment, technology, and interest of speaker. Collectivism was the top motivator as teachers noted the desire to advance their field. Reciprocity was the second most frequently chosen reason (Hew and Hara 2007). Carroll et al. (2003) provide a broad reasoning for the importance of knowledge management, which they describe as the teaching, learning, understanding, and sharing of knowledge. It is important because it provides a way for organizations to continually learn and to incorporate new information into practices.

The sharing of information has benefits for teachers and those they serve. Collaboration is a way for teachers to share information. Immroth and Lukenbill note that "[c]ollaboration promotes better teacher effectiveness and student learning […]" (2007, 13). They note that student achievement can be promoted when LIS professionals and teachers work together. Other researchers have discussed the benefits of online collaboration. These benefits include: anonymity, providing continuous development (Hew and Hara 2007), and the ability to share

various types of information (Carroll et al. 2003). Collaboration comes in many forms and is conducted in various environments. Teachers often encounter barriers in their attempts at collaboration, at sharing information, and when accessing information sources.

Barriers

Barriers impact many aspects of teachers' information behavior. Information, especially in the form of research findings, is not always readily applicable to the classroom (Landrum et al. 2007). Teachers need to be able to quickly recognize how methods and interventions can be implemented with their students. Literature shows one of teachers' most prominent barriers to using research information is associated with lack of ready access and time (Williams and Coles 2007; Hew and Hara 2007; Carroll et al. 2003; Landrum et al. 2007). Collaboration is limited as teachers lack time for interaction (Hew and Hara 2007; Carroll et al. 2003; Immroth and Lukenbill 2007). They also found barriers existed because teachers lack searching and evaluating skills. Research articles can be lengthy and, at times, difficult to digest (Williams and Coles 2007; Hew and Hara 2007). Furthermore, the use of certain types of information is also affected by the attitude of searchers and the atmosphere of the school (Williams and Coles 2007; Hew and Hara 2007; Carroll et al. 2003; Immroth and Lukenbill 2007). It is important for school environments to foster a respectful, flexible atmosphere that allows time for collaboration to ensure teachers are able to find, share, and use multiple types of information.

Uses

Once barriers are overcome, teachers access and use information for various reasons. The top three uses of information gathered by teachers are developing class exercises or projects, writing lesson plans, and developing assessment (Shipman et al. 2015). Other uses include: developing material resources, reviewing pedagogical techniques, and gaining insights into learning, development, and human relations (Carroll et al. 2003). Sharing and gathering

information leads teachers to have a better understanding of varying subjects. It can also be used for emotional support and applicable ideas in the classroom (Hew and Hara 2007). In all, teachers' various uses of the information help them cope emotionally, further understand concepts, and promote student learning.

<div align="center">**Expert's Information**</div>

Various aspects of one teacher's, Jill's (pseudonym used for anonymity), information behavior are noted below. When interviewed, Jill commented on her main information needs. These included information for lesson planning, creative ideas to enrich lessons, worksheets, and extra practice materials. Her three most essential needs were testing and daily practice resources, intervention activities, and crafts/activities to enrich weekly writing. Most of Jill's information needs pertain to practical and applicable uses in her classroom.

In an effort to satisfy these needs, Jill listed a variety of sources. She uses the internet, her personal collection of books, the school library, and her colleagues. Her most used resources are located on the internet. The sites provide ideas for activities, games, and printable resources. Jill noted that she uses the school library to find books for research over her class's weekly writing topic. The school librarian suggests and helps her locate books. She said that she "absolutely benefit[s]" from her colleagues sharing information. They provide direct answers, source referrals, and/or documents. She prefers when the information is provided digitally and appreciates when she can edit the resources to fit her needs. She also prefers the aforementioned sources because they are in her "comfort zone." She has used them for a majority of her teaching career, and they provided the information she needs to perform her job.

Jill's information uses are mostly practical. She did comment that some information helps with overall understanding and emotional support. This often occurs when she shares a

story by "venting," and colleagues comment with support or strategies for handling students'
behavior or academic needs. Practical information gathered is used to plan, implement, and
enrich lessons. The intervention information she gathers helps her implement lessons and ideas
for children who may be struggling. Her use of research findings is low. While some of Jill's
information is gathered for understanding and emotional support, much of what she gathers is
used for practical implementation. Finding this information she needs to utilize in the classroom
is not always easy.

Jill commented on reasons she shares information and barriers that inhibit her seeking
and sharing. Jill shares information to help others gain understanding, in hopes that others
provide her reciprocal information, and because she feels good knowing she is benefitting others.
She encounters barriers that restrict her sharing and seeking. Noted barriers include time,
funding, and accessibility. Her greatest barrier is time. Her school provides collaboration time
but only once a month during hour-long meetings. Other collaboration occurs when she can
randomly fit it in her day. She does find collaboration important as she can validate her ideas,
ask questions, and discover information. Jill also commented that, although her college program
prepared her to search and utilize research, the sources she used are not available to her post-
college. She was unfamiliar with the ERIC (Institute of Education Sciences) resource. Despite
barriers faced by teachers, information gathering is a very important aspect of teaching. The
information behavior described by Jill can be compared to related literature.

<div align="center">**Discussion**</div>

The literature on teacher information behavior and Jill's information behavior have many
comparisons and some differences. Jill preferred internet sources for needed information. This
aligns with the aforementioned literature findings that teachers prefer colleagues and the internet

as either their first or second selected sources of information (Landrum et al. 2007; Williams and Coles 2007; Shipman et al. 2015). Jill's internet sources often involve other teachers. For example, one of Jill's internet sources, Teachers Pay Teachers, provides sources created by teachers. While the teachers are not colleagues that work in the same place, these internet sources provide a way for teachers to share and learn from others. Williams and Coles (2007) mentioned that the trustworthiness of sources may be due to their location within schools. This trust may be expanded to Jill's internet sources because teachers are able to connect around the globe for needed information. These resources often come with reviews from others to help check for effectiveness. While not her most preferred source, Jill did mention some of the various personal contacts listed in the findings of Shipman et al. (2015). She mentioned colleagues, the librarian and certain administrators could be helpful. Overall, even if the personal format was delivered online, personal contacts are preferred over data-based information sources just as Landrum et al. (2007) noted. The speculations of Shipman et al. (2015) that sources were preferred because of ease and efficiency were comparable to the expressed reasons of Jill. She also added preference was based on trustworthiness and whether the information was teacher-created.

As Williams and Coles (2007) and Shipman et al. (2015) found in their research on teacher information behavior, Jill's use of research is limited. Jill was confident in her skills, but worried a bit about whether research could be trusted because of misused information. As Williams and Coles (2007) and Landrum et al. (2007) found in their research, Jill mentioned the lack of access. She is not aware of the sources that she used in college being available now. For example, she was unaware of the availability of ERIC. While accessibility of various sources may be limited, awareness of the availability also seems to be a barrier.

Information sharing was seen as pivotal in the literature and by Jill. Jill looks to colleagues, and other teachers through internet sources, for emotional advice, assistance in understanding, and, most often, practical information. Hew and Hara (2007) also found practical advice to be the most shared type. Jill also shared advice with others. Her reasons included two that were found in Hew and Hara's (2007) article. She shares to help others (altruism), to gain information (interest of seeker), and because it makes her feel good to know she may benefit someone (less materialistic form of egoism). Information sharing and giving is seen as an essential aspect of teaching, and collaboration is a great way for this to happen. Immroth and Lukenbill (2007) as well as Jill noted the importance of collaboration on teacher effectiveness. This collaboration occurs both online and in-person for Jill. Online collaboration has benefits that may exist in addition to face-to-face collaboration. Jill, Carroll et al. (2003) and Hew and Hara (2017) noted benefits to online collaboration. Face-to-face collaboration can be difficult in a school setting because of the lack of time. This barrier is somewhat overcome by the availability of the internet before and after school as well as during plan times.

As the literature and Jill have noted, several issues can serve as barriers to information. This paper has already explained the lack of accessibility to research information; although, it was noted this may be a combination with a lack of awareness. This lack of access and time were two of Jill's main barriers to information seeking and sharing as was found for the teachers studied by Williams and Coles (2007), Hew and Hara (2007), and Carroll et al. (2003). One aspect that differed for Jill and research literature (Williams and Coles 2007; Hew and Hara 2007) is that she felt confident in her searching abilities. Jill feels confident that she could read scholarly articles and comprehend them; she just does not feel like the research sources are available.

Many of Jill's information uses fit the findings of Shipman et al. (2015) and Carroll et al. (2003). These included: class projects, lesson planning, assessment needs, classroom management ideas, and developing resources. Jill did not mention using information to write research papers as Shipman et al. (2015) had noted. Williams and Coles (2007) had found the utilization of research information as being significant to a teacher's practice. While Jill sees the value of research information, she feels she can complete her job successfully without it. Just as Jill's needs were mostly practical and applicable in nature, her use of information is as well.

In analyzing the information behavior of Jill and the literature, theories and models are reflected. One particular model reflected is the Wilson model of information seeking. Of particular importance in this model is his emphasis of the context of information seeking (Case and Given 2016). Throughout examinations of teachers' information behavior, one can visualize the needs stemming from an activating mechanism. Wilson's "activating mechanisms" can be seen as motivators to start Jill's information search. In Jill's situation, this could be a child in need of an academic intervention, a need for a worksheet, etc. Context further affects the search with what Wilson labels "intervening variables" (Case and Given 2016). Of his six variables, Jill's information behavior reflects demographic background (graduated college within the last five years), role-related interpersonal (educator), environmental (resources available, barriers, etc.) and source characteristics (accessibility, trust, etc.). Wilson also recognized the different types of search behavior. Jill's descriptions of her various behaviors reflect passive and active searching. The consistent need for information in the teaching profession is also shown in Wilson's model. " […] Wilson implies that the information is evaluated as to its effect on need, and forms part of a feedback loop that may start the process of seeking all over again if the need is not satisfied" (Case and Given 2016, 164). It can be observed that a teacher's need for

information is constant, and there is a need of various sources. The Wilson model helps LIS

professionals visualize the varying contextual factors and methods of seeking that may affect

teachers. Keeping these information behavior aspects in mind, as well as how context affects the

behaviors, will help to serve teachers' information needs.

Conclusion

The literature and expert findings gathered show that many factors contribute to the

information behavior of teachers. There are factors that seem to be constant in most instances of

information behavior of teachers. These include regularly looking for practical and applicable

information, barriers such as time and accessibility, the use of internet and personal contacts, and

the importance of information sharing. However, their contexts may vary and this affects their

sources and searching behaviors.

LIS professionals should understand the information behavior of this group as this group

impacts many others. Teachers' abilities to access the information they need impacts the

learning of students. Students need to have teachers who are able to model and teach

information literacy skills and who are provided an environment to access the information they

need. Since teachers and their situations are so diverse, LIS professionals can learn from their

varying demographic, interpersonal, and environmental impacts. It is essential that information

professionals focused on school librarianship understand the importance of teachers' information

needs and the effects of information access, sharing, and use on their classrooms.

Further study of teachers' information behavior is important. The research available on

in-service teachers is limited. As technology and sources change, it is important to keep abreast

on aspects of their information behavior. Questions of how teachers' contexts (experience,

subjects taught, etc.) affect information behavior should be a focus of further study. Questions

should be answered as to why some schools are successful at collaboration. Also, research on why certain information sources are so successful would be beneficial. Could schools implement similar platforms of collaboration? What kind of school cultures promote information gathering, sharing, and use? Observations, surveys, and interviews could yield the results information professionals need to promote a successful information seeking and sharing environment.

References

Carroll, J.M., Chun Wei Choo, Daniel R. Dunlap, Phillip L. Isenhour, Stephen T. Kerr, Allan
MacLean, and Mary Beth Rosson. 2003. "Knowledge Management Support for
Teachers." *Educational Technology Research and Development* 51, no. 4 (December):
42-64. https://dx.doi.org/ 10.1007/BF02504543.

Case, Donald O. and Lisa M. Given. 2016. "Models of Information Behavior." In *Looking for
Information: A Survey of Research on Information Seeking, Needs, and Behavior*, 141-
175. Emerald: United Kingdom.

Hew, Khe Foon and Noriko Hara. 2007. "Empirical Study of Motivators and Barriers of Teacher
Online Knowledge Sharing." *Educational Communications and Technology* 55, no. 6
(December): 573-595. https://dx.doi.org/10.1007/s11423-007-9049-2.

Immroth, Barbara and W. Bernard Lukenbill. 2007. "Teacher-School Library Media Specialist
Collaboration through Social Marketing Strategies: An Information Behavior Study."
School Library Media Research 10 (March): 1-22.
http://www.ala.org/aasl/sites/ala.org.aasl/files/content/aaslpubsandjournals/slr/vol10/SL
MR_T eacherSLMSCollaboration_V10.pdf.

Landrum, Timothy J., Bryan G. Cook, Melody Tankersley, and Shawn Fitzgerald. 2007.
"Teacher Perceptions of the Useability of Intervention Information from Personal versus
Data-based Sources." *Education and Treatment of Children* 30, no. 4 (November): 27-42.
https://dx.doi.org/ 10.1353/etc.2007.0025.

Shipman, Todd, Susan H. Bannon, and Kimberly Nunes-Bufford. 2015. "The Information-
Seeking Habits of In-Service Educators." *College & Research Libraries* 76, no. 2
(March): 120-135. https://doi.org/10.5860/crl.76.2.120.

Williams, Dorothy and Louisa Coles. 2007. "Teachers' Approaches to Finding and Using

Research Evidence: An Information Literacy Perspective." *Educational Research* 42, no.

2 (May): 185-206. https://doi.org/10.1080/00131880701369719.