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The relationship between library professional development and technology in school media centers

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THE RELATIONSHIP BETWEEN LIBRARY PROFESSIONAL DEVELOPMENT
AND TECHNOLOGY IN SCHOOL MEDIA CENTERS

by
Crystal L. O'Malley

A Thesis
Submitted in partial fulfillment of the requirements of the
Master of Arts Degree
of
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at
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The purpose of this study was to determine if there was a correlation between how school media specialists learn about new technologies and the implementation of those technologies into their school media centers. The researcher expected that the more hours media specialists spent in professional development activities, the more likely it would be that the technologies learned in the professional development activities would be implemented in their media centers. The survey was prepared and sent to 126 media specialists throughout New Jersey. Sixty-one media specialists responded. The results of the survey indicated that there was some correlation between certain types of technology professional development activities and implementation of those technologies into media centers. However, it appears outside influences effected the overall results and a correlation could not be determined. The sample size of participants also limited the study. Future implications for similar studies are discussed and recommendations included taking into account these outside influences and sending the survey to a larger number of participants.
ACKNOWLEDGEMENTS

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I would also like to thank my family and David Thompson for their support throughout the past two years. Without their assistance, both emotionally and financially, I would not have been able to devote my time and energy so fully to my schooling.
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CHAPTER I

INTRODUCTION AND IMPORTANCE

School Library Journal’s 2006 Technology Survey found that 88 percent of respondents utilize databases and other e-resources, 65 percent have library Web sites, 29 percent plan to use blogs at some point in the next year and 18 percent plan to use wikis (Brewer & Milam, 2006). The authors’ state,

As technology use becomes increasingly integrated into day-to-day learning, everyone must know how to use it. And who better to do the instructing than school librarians? Since the days when they carted around 16-millimeter projectors, many media specialists have been the on-site tech experts, and they continue in that role today. (Brewer & Milam, 2006, p. 46)

In order to continue to be those on-site tech experts, it is essential for school library media specialists to keep up with the ever-changing technological advances. In order for school media specialists to stay on top of technological advances, they must choose to attend professional development seminars, continuing education classes, and read professional journals, articles, or blogs related to technology. It is not only important for school media specialists to be aware of these technologies, but it is also important that they try to implement them into their school media centers.
If the school media center does not utilize the technologies that students have at home and use on a daily basis, students will not look at the media center as somewhere that has resources that they need or want to use. Also, if the school media specialist is not current on the new technologies, they may not be able to fully help a student get the best information available. Connecting with the students may also be an issue if the school media specialist has not kept up with the language and skills that are created when new technologies are born.

Purpose of Study

The purpose of this study is to determine if there is a relationship between how much time school media specialists spend on professional development activities relating to technology and the implementation of those technologies into their school media centers.

Hypothesis

This researcher believes that the more time a school media specialist spends in professional development endeavors related to technology, the more those technologies are found in the school media centers where they are employed.

Research Questions

1. What actions do school media specialists take to stay current with technologies for the school media center? How much time do they spend in professional development activities?

2. Do school media specialists pass on their knowledge of technologies to their student and teacher populations through the implementation of these technologies into the school media center?
3. Is there a relationship between school library media specialists’ participation in professional development activities related to library technology and the implementation of those technologies in the school media center?

Definitions

For the purposes of this study, student is defined as a child in grades K-12. The following definitions were from the *Online Dictionary for Library and Information Science* (Reitz, 2004-7):

**Article**: A self-contained nonfiction prose composition on a fairly narrow topic or subject, written by one or more authors and published under a separate title in a collection or periodical containing other works of the same form. The length of a periodical article is often an indication of the type of publication—magazine articles are usually less than five pages long; articles published in scholarly journals, longer than five pages. Periodical articles are indexed, usually by author and subject, in periodical indexes and abstracting services, known as bibliographic databases when available electronically.

**Continuing education**: Formal instruction for persons who have completed an academic degree, moved into the workplace, and wish to keep up with changes and innovations in their field. For librarians, continuing education opportunities include courses offered online or traditionally through a library school, training provided by commercial vendors, and workshops sponsored by bibliographic service centers and library associations, as well as independent study.

**Electronic books** - A digital version of a traditional print book designed to be read on a personal computer or an e-book reader (a software application for use on a standard-sized

**Instant messaging (IM):** A real time computer conferencing system that enables two or more persons to "chat" online via the Internet. IM allows the user to add the name of another person to a messaging list and be instantly notified whenever the person logs on. A chat session is initiated by typing a message in a designated window or "chat room" generated by the IM software. The message is displayed almost instantaneously on the screen of each person on the list, and the recipient(s) may respond quickly by typing a message. Instant messaging is used in libraries to deliver digital reference services to remote users and to persons who prefer to communicate online.

**Journal:** A periodical devoted to disseminating original research and commentary on current developments in a specific discipline, subdiscipline, or field of study, usually published in quarterly, bimonthly, or monthly issues sold by subscription. Journal articles are usually written by the person (or persons) who conducted the research. Longer than most magazine articles, they almost always include a bibliography or list of works cited at the end. In journals in the sciences and social sciences, an abstract usually precedes the text of the article, summarizing its content. Most scholarly journals are peer-reviewed. Scholars often use a current contents service to keep abreast of the journal literature in their fields of interest and specialization.

**Library media specialist:** A librarian trained to deliver library services to students in a school library media center on a walk-in basis or at the request of the classroom teacher. Library media specialist is synonymous with school librarian.
**Podcast:** A digital media file (audio or video) syndicated over the Internet via an RSS feed. The author or host of a podcast is known as a *podcaster*. Once available online, podcasts can be downloaded for listening on portable media devices (MP3 players, pocket CDs, cell phones) and personal computers. Podcasts are synonymous with videocasts.

**Professional development:** Further study undertaken during employment by a person trained and educated in a profession, sometimes at the initiative of the employer but also through voluntary attendance at conferences, workshops, seminars, or enrollment in postgraduate courses, particularly important in professions that have a rapidly changing knowledge base.

**School library:** A library in a public or private elementary or secondary school that serves the information needs of its students and the curriculum needs of its teachers and staff, usually managed by a school librarian or media specialist. School library is synonymous with media center and school media center.

**Social tagging:** A system, developed in 1996, that allows Internet users to store, classify, share, and search lists of bookmarked resources.

**Weblog:** A Web page that provides frequent continuing publication of Web links and/or comments on a specific topic or subject (broad or narrow in scope), often in the form of short entries arranged in reverse chronological order, the most recently added piece of information appearing first. Weblog is synonymous with blog. The process of maintaining a Weblog is known as blogging.

**Wiki:** Based on a Hawaiian term meaning "quick" or "informal." A Web application that allows users to add content to a collaborative hypertext Web resource (coauthoring), as in
an Internet forum, and permits others to edit that content (open editing). Authorizations
and passwords are not required, and content can be changed by anyone simply by
clicking on a "edit" link located on the page. A wiki may have policies to govern editing
and procedures for handling edit wars. Activity within the site can be watched and
reviewed by any visitor to the site.

The following definition was from *Webopedia* (Jupitermedia, 2008):

**RSS:** RSS is the acronym used to describe the de facto standard for the syndication of
Web content. RSS is an XML-based format and while it can be used in different ways for
content distribution, its most widespread usage is in distributing news headlines on the
Web. A Web site that wants to allow other sites to publish some of its content creates an
RSS document and registers the document with an RSS publisher. A user that can read
RSS-distributed content can use the content on a different site. Syndicated content can
include data such as news feeds, events listings, news stories, headlines, project updates,
and excerpts from discussion forums or even corporate information.

**Assumptions**

The quality of the professional development that school media specialists
participate in was assumed to be of high quality. Another assumption was that time
estimates from professional development activities related to technology was an adequate
way to measure school media specialist professional development.

**Limitations**

This study was limited to school media specialists in New Jersey. Since the
survey was voluntary, the study results also were limited by those who chose to
voluntarily answer the survey.
References


This literature review discusses articles and studies that relate to technologies in the media center, professional development of media specialists, and whether there is a correlation between the time media specialists spend in technology professional development and the implementation of technologies in the media center.

Technology in the Media Center

There has been much discussion on the importance of Web 2.0 and the implementation of technologies into the media center. As Brooks (2008) stated, “We must know how to select, adopt, and promote new technologies to bump our media programs to a place of prominence as innovative models for teaching and learning in our schools” (p. 14). There has been less discussion however about how a media specialist is supposed to learn and understand these new technologies in order to promote and implement them. Many articles were found about the new technologies but few went into depth about the technologies.

It was repeated again and again in articles that it is imperative for media specialists to keep the library current and relevant by paying attention to technology trends. Media specialists need to “take a look at what’s out there and do a brief analysis
of strengths, weaknesses, opportunities, and threats in terms of what’s good, interesting, or desirable for users, libraries, and librarians,” (Eisenberg, 2008, p. 23). Not all technologies have a place in the media center but a librarian should be aware of what is going on outside of the media center and trying to figure out if it can or should be incorporated into the media center.

Stephen Abram (2008), in his discussion about Web 2.0, Library 2.0 and Librarian 2.0 stated,

Librarians have a once-in-a-generation opportunity to invent a new future.
Librarian 2.0 is the guru of the information age. Librarian 2.0 strives to understand the power of the Web 2.0 opportunities…connects people and technology and information in context…does not shy away from nontraditional cataloguing and classification and chooses tagging, tag clouds, folksonomies, and user-driven content descriptions and classifications where appropriate…encourages user-driven metadata and user-developed content and commentary. (p. 21)

Librarian 2.0 cannot exist in the school media center without media specialists constantly keeping up with technologies through professional development type opportunities. Whether media specialists read articles, blogs or journals, attend seminars, view Webcasts or listen to podcasts, they must utilize professional development opportunities to stay on top of the trends in technology being introduced each year.

Annette Lamb (2008) discussed three steps to keeping the school media center in touch with the times and relevant: re-imagine the tools, rejuvenate learning spaces and renew partnerships. Re-imagining the tools requires the school media specialists to think
of the library and what it offers differently than they may be used to. Libraries are more than books and magazines. The electronic tools have become essential to students and how they learn. And these tools are constantly being improved and updated. The learning space is more than just a one-way street these days. Everyone can be involved in teaching and learning, including students and others outside of the classroom. Blogging, podcasts, and wikis are examples of how everyone can participate and learn from each other. Learning can be done in the library but also out of the library with distance and E-learning. The learning space is being redefined through the technologies being brought into the media center (Lamb, 2008).

Professional Development

Like keeping abreast of technology trends, “continuing education programs and professional development activities are acknowledged as essential for information professionals,” (Shannon, 2002). There were many articles, seminars, podcasts, and Webinars out there talking about these technologies. But how are school media specialists getting their professional development? Robert Cummings, a school media specialist in Long Island, stated in an article by Tewel and Kroll (1988),

The principal never seemed to know what to do with me on staff development day. Early on, I was asked to join with the English teachers. Another time I met with the clerical workers. After that I never participated in staff development activities and no one ever knew what I did on those days or cared about it. (p. 244)
Because many school districts do not offer specific professional development opportunities aimed at media specialists, it is frequently up to the media specialist to seek out their own information.

According to Jurkowski (2006), “continuing education in multiple forms ensures that we keep up with changes in information literacy, technology in the school library, and with other aspects of libraries and school” (p. 183). One simple way for media specialists to get professional development is to join as many groups and committees that they can. Whether they join national or local committees, consortiums or district groups, talking with others about the changes going on in the profession and how this is affecting their specific libraries can help the media specialist learn about new technologies. A study by Dumas (1994) suggested that these informal professional development activities are the preferred way for media specialists to get information (as cited in Shannon, 2002).

The school media specialist has to be proactive. The information will not come to them. They must be their own advocate and keep their media centers relevant to the school and their students. They must do this because:

Professional development enables individuals who work in the profession of librarianship to assume an attitude of inquiry and to engage in assessments and actions that will provide the opportunity for: (1) maintaining and updating knowledge and skills; (2) taking on new responsibility; (3) recapturing the mastery of concepts; and (4) creating, anticipating, and actively responding to change. (Young, 2004, p. 49)
Young (2004) further stated that professional development lasts throughout the media specialist’s career. It is an ongoing process that must occur in order for the school media specialist to be an effective leader in the school.

In 1988 an initiative called Library Power was started in 17 states around the country to “convert large numbers of school libraries into state-of-the-art educational centers to help improve teaching and learning in the nation’s schools,” (The Wallace Foundation, 2008). An evaluation of the Library Power initiative found that the professional development of librarians, teachers, and principals was essential to the success of the program (Wheelock, 1999). Wheelock (1999) stated, “across all Library Power sites, professional development was the lynchpin that held together the core practices and bolstered schools’ capacity to make use of those practices” (p. 13). Teachers and principals learned the value of the media specialists and the media center through professional development opportunities. And media specialists learned how to effectively collaborate with teachers and student learning strategies that would help them when teaching students (Wheelock, 1999).

Technology Professional Development and Implementation in Media Center

In reviewing the literature, nothing was found that discussed a correlation between technology professional development and implementing technologies into the media center. A study by Miller, found that attending state conferences or having discussions with other professionals in order to get professional development did not necessarily correlate with the media specialist implementing whatever the topic at hand was into their media center (as cited in Shannon, 2002). While Miller’s study did not
focus on technologies, it did show that there may not be a connection between professional development and implementation in the media center.

Summary of Literature Review

Technology will forever be upgrading and changing. Media specialists have to find their own ways of learning about new technologies or they risk falling behind the times and becoming irrelevant. Research suggests that there are varieties of ways that media specialists can obtain professional development and that they should use as many different avenues as possible. The more professional development opportunities that the media specialist has, the better equipped they will be to understand the new technology and thus be able to adapt easier. The further media specialist falls behind the times, the harder it will be to play catch up.
References


Wheelock, A. (1999). Executive summary: Findings from the evaluation of the National

CHAPTER III
METHODOLOGY

Research Methodology

The research method used in this study was a survey asking school media specialists how often they partook in professional development activities relating to technology and whether they had implemented those technologies into their media center. The data were analyzed to see if the amount of professional development correlated with the implementation of technologies into the media center. A comparison was also made among high school, middle school, and elementary school media specialists to see if one type was more likely to implement new technologies into the media center over another. A survey was chosen because it was the most effective way of getting answers from many media specialists throughout New Jersey.

Purpose

The purpose of this study was to determine if there was a relationship between how much time school media specialists spend on professional development activities relating to technology and the implementation of those technologies into their school media centers.
Research Questions

1. What actions do school media specialists take to stay current with technologies for the school media center? How current is their knowledge? How much professional development have they pursued?

2. Do school media specialists pass on their knowledge of technologies to their student and teacher populations by implementing these technologies into the school media center?

3. Is there a relationship between school library media specialists’ participation in professional development activities related to library technology and the implementation of those technologies in the school media center?

Data Collection Techniques

A self-administered survey (see Appendix A) was sent to 126 media specialists (see Appendix D) throughout New Jersey via email. The survey included a cover letter and a follow up letter (see Appendix B & C), which explained the purpose of the survey and asked that participants respond to the survey by February 20, 2009.

Sample and Population

A sample of 126 media specialists (see Appendix D) throughout New Jersey were randomly selected and sent surveys through email utilizing the Survey Monkey software. The survey was sent to two elementary school, middle school, and high school media specialists in each New Jersey County. Their email addresses were gathered by utilizing the State of New Jersey’s School Directory Web page in order to find schools in each county that had Web pages. The Web pages of the individual schools were then perused in order to try to find an email address for their school media specialist. The school Web
sites selected from the State of New Jersey’s School Directory site were chosen at random, in no particular order.

Variables

Time spent in professional development was the independent variable and the implementation of technologies into the media center the dependent variable. The school level of the media specialist was another independent variable that may affect the dependent variable of the implementation of technologies.

Survey Design

The survey sent to participants was an electronic, self-administered survey sent through the Survey Monkey software to each school media specialist’s school email addresses. The survey asked participants about their professional development activities relating to technology, whether they participated in formal or informal professional development, and how much time they spent in professional development activities in the last school year. They were also asked about what new technologies they were familiar with and what technologies they utilized in their media centers.

Validity and Reliability

The reliability of the survey was measured by pre-testing it on three school media specialists not chosen for the sample. These media specialists were found in the School and Public Librarianship program at Rowan University.
References


CHAPTER IV
ANALYSIS OF DATA

Procedures

An eleven-question survey was distributed to Dr. Shontz’s Thesis II class for pre-
testing. Once it was reviewed by the class and approved by Dr. Shontz, it was sent to 126
media specialists throughout New Jersey using the SurveyMonkey Web site at
http://www.surveymonkey.com. The survey (see Appendix A), along with an electronic
letter (see Appendix B & C) explaining the survey and requesting participation, was sent
to six media specialists from each county in the state; two each from elementary, middle
and high school. The media specialists were chosen at random by looking for email
addresses on the school’s Web page. If the school did not have a Web page or the Web
page did not include staff email addresses, those media specialists were not able to be
included in the sample. Out of 126 possible participants, there were 63 responses to the
survey. A total of 61 of those 63 responses were complete and considered valid. These
61 responses were collected and analyzed with results presented here.

Statistical Analysis

Once the results were collected in SurveyMonkey, the results were downloaded
into a summary report, which allowed them to be analyzed in Microsoft Excel. Data for
questions 1, 2, 5, 6, 7, 8 and 9 were made into charts using Excel. The survey was
broken down into three parts: Information About Your School, Professional Development
in Library Technology and Open Ended Questions. All questions were mandatory except for Questions 10 and 11. Questions 10 and 11 allowed for open-ended responses.

Results

Question 1: “What grade level does your school media center serve?” As Figure 1 shows, 15 out of the 61 total respondents worked in elementary schools, 18 worked in middle schools and 28 worked in high schools (see Figure 1).
Questions 2: “What County is your school media center in?” At least one media specialist in each County responded to the survey. As Figure 2 shows, Passaic County had the least number of respondents with only one. Morris County had the most respondents with five. The mean of responses for all Counties was 2.9 (see Figure 2).

![Figure 2: Respondents by County](image)

Question 3: “How many years have you been a school media specialist?”

Responses varied from one year to 37 years as a media specialist. The mean of responses for this question was 11.95 years as a media specialist. A total of 33 respondents had been media specialists between one and 10 years, 15 respondents between 11 and 19 years, and 13 respondents between 20 and 37 years.
Question 4: “How many students are enrolled in your school?” Responses to this question varied from 80 students to 2,300 students. The average number of students enrolled in the schools was 857.6 students.

Question 5: “During the past school year, how many hours have you spent attending library technology workshops or in-services?” As Figure 3 shows, 18 media specialists attended 10+ hours of library technology workshops or in-services. Twelve media specialists each attended either 0-2 hours or 8-10 hours of workshops or in-services. Eight of each either attended 2-4 hours or 6-8 hours of workshops or in-services. Three media specialists spent 4-6 hours in workshops or in-services.

![Figure 3: Hours Spent at Library Technology Workshops or In-services](image-url)
Question 6: “During the past school year how many hours have you spent attending conferences or committee meetings relating to library technology?” As Figure 4 shows, the majority of media specialists spent 0-2 hours in library technology committee meetings or conferences. Twenty-eight media specialists chose 0-2 hours. Ten media specialists spent 10+ hours in committee meetings or conferences. 2-4 hours and 6-8 hours were each spent in conferences or committee meetings by 7 media specialists. Six media specialists attended 4-6 hours of committee meetings or conferences. Three media specialists attended 8-10 hours of library technology committee meetings or conferences.
Question 7: “During the past school year, how many hours have you spent perusing journals or searching the Internet for information related to library technology?”

As Figure 5 shows, the majority of media specialists spent 10+ hours in reading journals or the Internet related to library technology. Twenty-nine media specialists chose 10+ hours. Ten media specialists spent 4-6 hours in reading journals or perusing the Internet. A total of 0-2 hours and 2-4 hours were each spent by 8 media specialists. Four media specialists read journals or perused the Internet for 8-10 hours of library technology committee meetings or conferences. Two media specialists chose 6-8 hours.

![Figure 5: Hours Spent Reading Journals or Perusing Internet Relating to Library Technology](image)
Question 8: “Did you learn about any of the following library technologies in your professional development activities? Please check all that apply.” As Figure 6 shows, Blogs were the most learned about library technology in the media specialists’ professional development activities with 34 respondents. E-books was the next popular choice with 30 media specialists responding that they learned about them in the professional development activities. Twenty-eight people chose Wikis, 23 chose Social Networking, 20 chose Podcasting, 18 chose RSS, and 15 chose None. Five each learned about Instant Messaging and Tagging (within OPAC). Six people chose the Other (please specify) option. Responses in Other category included Web 2.0, digital storytelling, video editing, Web development and SmartBoard.
Question 9: “Do you utilize or have you utilized any of the following library technologies in the school media center? Please check all that apply.” As Figure 7 shows, E-Books was the most utilized library technology in the respondent’s media centers. Twenty-eight respondents used E-Books in their media center. Twenty-two chose None, 20 chose Blogs, 19 chose Wikis, 11 chose Podcasting, seven chose RSS, six chose Social Networking, five chose Tagging (within OPAC) and two chose Instant Messaging. Four respondents chose Other (please specify). Some of those responses included SmartBoard and research.

![Figure 7: Library Technologies Utilized in IMC](image)

Question 10: “If you have implemented any library technologies, describe any benefits or problems you have encountered.” This open-ended question was optional for participants. A total of 40 participants responded to this question. The benefits
respondents described were ideas like “increased student interest and learning.” One respondent stated,

These techniques prepare our kids for the 21\textsuperscript{st} century as a prerequisite for lifelong learning, common to all disciplines, to all learning environments, and to all levels of education. Advanced library and research skills enable learners to engage in critical evaluation of content both in print and online, extend their investigations in researching projects in all subjects, become more self-directed in applying information literacy skills, and assume greater control over their own learning.

The most common problem respondents came across in implementing technologies was getting the district or technology department to work with them to get the technologies into the media center. One respondent stated, “The problems I have encountered are associated with a difference in philosophy between myself and our technology coordinator.” Another respondent stated that there was a “lack of support from inside technology administrators.” Other problems encountered included lack of funds and time constraints. Nine respondents’ highlighted difficulties with the technology department or district, five said time was an issue and three people said the budget limited them.

Question 11: “If you have not implemented any library technologies into your media center, please explain why.” This open-ended question was optional for participants. A total of 29 participants responded to this question. Time was again mentioned as a factor for not implementing library technologies. One respondent commented, “I would like to do more. I am pretty tech savvy and manage content on our district website but find there is too little time to accomplish all that I want to do as of
right now.” Other responses included not having enough computers for students, the server not being able to handle new technologies, not seeing an effective use for the technologies, and students not having book finding abilities, let alone technology skills.

The results show that the majority of technologies media specialists learned the most about in professional development activities were also the technologies that were the most frequently implemented in media centers. But many respondents also stated that they have implemented none of the technologies into their media centers. In the final chapter, the researcher states conclusions regarding the gathered data and results.
References

CHAPTER V
SUMMARY AND CONCLUSIONS

Summary

The purpose of this study was to determine if there was a relationship between how much time school media specialists spend on professional development activities relating to technology and the implementation of those technologies into their school media centers. The study used an electronic survey questioning media specialists throughout the state about their professional development ventures related to library technologies and what library technologies they utilized in their media centers. They were also given open-ended questions to determine what factors, other than professional development, might influence whether or not there was a utilization of library technologies. The population for this survey was school media specialists from every county in the state who were chosen utilizing the State of New Jersey School District Web site. The survey was sent to participants through the online research tool Survey Monkey.

Conclusions

Question 8 asked participants if they learned about certain library technologies in their professional development activities. Question 9 asked if the participants utilized any of those same library technologies in their media centers. A comparison of these two questions is presented in Figure 8. Of the 34 respondents who learned about blogs in
their professional development activities, 20 of them (60%) utilized blogs in their media centers. Of the 30 respondents who learned about e-books in their professional development activities, 26 of them (80%) utilized e-books in their media centers. Of the 28 respondents who learned about wikis in their professional development activities, 19 of them (70%) utilized wikis in their media center. These numbers seem to suggest that learning about library technologies in professional development activities does have some influence on whether the media specialists implement these library technologies into their media centers or not.

One consideration that needs to be included though is the fact that 22 out of the 61, over one-third, of respondents have not implemented any of the library technologies into their media centers. As discussed in Chapter 4, time, the budget, and a lack of support from administrators or the technology department were the biggest reasons media specialists did not implement any technologies into their media centers.

Figure 8: Comparison of Technologies Learned/Used

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Figure 9 compares Figures 3, 4 and 5, to look at the number of respondents who spent the most hours pursuing professional development activities. Journal reading and perusing the Internet were clearly the most employed methods for respondents to obtain their professional development hours relating to library technologies with 29 respondents indicating that they spent 10+ hours on these activities. Eighteen respondents received 10+ hours of professional development relating to library technologies by attending workshops or in-services. Only 10 respondents indicated that they received 10+ hours of professional development relating to library technologies by attending conferences or committee meetings. Those that responded received the most professional development by reading journals or perusing the Internet for information relating to library technology.
Figure 10 examined the 10 respondents who went to 10+ hours of conferences or committee meetings. A comparison was made between the number of respondents who learned about wikis, blogs or e-books in these conferences or committee meetings with the implementation of those technologies in the respondents’ media centers. As Figure 10 shows, eight of the 10 respondents learned about wikis and four of those eight respondents (50%) implemented wikis into their media centers. Eight of the 10 respondents also learned about blogs and five of those eight respondents (62%) utilized blogs in their media center. Only two respondents learned about e-books, though four respondents used e-books in their media center.
Figure 11 examined the 18 respondents who went to 10+ hours of workshops or in-services. Again, a comparison was made between the number of respondents who learned about wikis, blogs or e-books in these workshops or in-services with the implementation of those technologies in the respondents’ media centers. Eleven of the 18 respondents learned about wikis, although only four (36%) were utilizing wikis in their media center. Thirteen of the respondents learned about blogs, but again, only four (30%) were utilizing blogs. Seven respondents learned about e-books in workshops or in-services and five of those seven (71%) were utilizing e-books in their media center.

![Figure 11: Library Technologies Learned in Technology Workshops or In-Services Compared with Use in Media Center](image-url)
Figure 12 examined the 29 respondents who spent 10+ hours reading journals or perusing the Internet. Again, a comparison was made between the number of respondents who learned about wikis, blogs or e-books when reading journals or perusing the Internet with the implementation of those technologies in the respondents’ media centers. Seventeen of the 29 respondents learned about wikis and 12 of those 17 respondents (70%) utilized wikis in their media centers. Eighteen of the 29 respondents learned about blogs and 14 of those 18 respondents (77%) utilized blogs in their media centers. Eighteen of the 29 respondents also learned about e-books and 16 of those 18 respondents (88%) utilized e-books in their media center.

Figure 12: Library Technologies Learned by Reading Journals or Perusing the Internet Compared with Use in Media Center

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</table>

Clearly, the highest percentage of respondents who learned about a specific library technology and then implemented those technologies into their media center occurred with the respondents who spent 10+ hours reading journals or perusing the Internet.
Recommendations for Further Study

There was not much available literature to research and draw on when writing this thesis. Since Web 2.0 and library technologies are still relatively new, studies and articles that discuss the topics in this thesis may start to appear in the next few years. A new literature review could be done in the future and may shed some more light on these topics.

It would be beneficial to repeat this study on a larger scale with different criteria in the survey questions. For instance, budget and other staff need to be taken into consideration. Budgets in different school districts vary widely. Some media center budgets allow for the implementation of library technologies, while in other schools the media center budget barely covers books and does not even allow for databases or an OPAC. Also, the number media specialists in the school and the number of support staff may make a difference as far as time to implement library technologies. These were two of the biggest reasons that media specialists indicated that they did not implement more or any library technologies into their media center. Another possibility is to include more participants hopefully gaining responses, thus giving the researcher more information to study which would allow them to make more meaningful conclusions.
References

REFERENCES


Shannon, D. (2002). The education and competencies of school library media specialists:


APPENDIX A

Survey
Professional Development Survey

1. Part I - Information about your school

* 1. What grade level does your school media center serve?
   - Elementary School
   - Middle School
   - High School

* 2. What county is your school media center in?

* 3. How many years have you been a school media specialist?

* 4. How many students are enrolled in your school?

2. Part II - Professional Development in Library Technology

This survey concerns professional development you have participated in the 2007-2008 school year. In this instance, professional development only refers to professional development about library technology. Examples may include, personal journal reading, web searching, workshops, in-services, conferences, or committee meetings.

* 1. During the past school year, how many hours have you spent attending library technology workshops or in-services?
   - 0-2 hours
   - 2-4 hours
   - 4-6 hours
   - 6-8 hours
   - 8-10 hours
   - 10+ hours

* 2. During the past school year how many hours have you spent attending conferences or committee meetings relating to library technology?
   - 0-2 hours
   - 2-4 hours
   - 4-6 hours
   - 6-8 hours
   - 8-10 hours
   - 10+ hours

* 3. During the past school year, how many hours have you spent perusing journals or searching the Internet for information related to library technology?
   - 0-2 hours
   - 2-4 hours
   - 4-6 hours
   - 6-8 hours
   - 8-10 hours
   - 10+ hours
**Professional Development Survey**

* 4. Did you learn about any of the following library technologies in your professional development activities? Please check all that apply.

- [ ] Instant Messaging
- [ ] RSS
- [ ] Wikis
- [ ] Blogs
- [ ] Social Networking
- [ ] Tagging (within OPAC)
- [ ] E-books
- [ ] Podcasting
- [ ] None
- [ ] Other (please specify)

* 5. Do you utilize or have you utilized any of the following library technologies in the school media center? Please check all that apply.

- [ ] Instant Messaging
- [ ] RSS Feeds
- [ ] Wikis
- [ ] Blogs
- [ ] Social Networking
- [ ] Tagging (within OPAC)
- [ ] E-books
- [ ] Podcasting
- [ ] None
- [ ] Other (please specify)

**3. Part III - Open Ended Questions**

1. If you have implemented any library technologies, describe any benefits or problems you have encountered.

2. If you have not implemented any library technologies into your media center, please explain why.

Thank you for your participation! If you have any questions please contact me at clamalley7@hotmail.com or my thesis advisor, Dr. Marilyn Shantz, at shantz@rowan.edu
APPENDIX B

Electronic Letter to Participants
To: [Email]
From: clomalley7@hotmail.com

Subject: Professional Development Survey

Body: I am a graduate student at Rowan University in the School and Public Librarianship program. I am conducting a survey as a part of my thesis requirement for my Master’s degree. The purpose of this study is to determine if there is a relationship between the amount of professional development media specialists receive relating to library technologies and the implementation of those technologies in their media centers.

I have sent this survey to a small number of participants so I would greatly appreciate you taking the time to answer it. It should take no more than 5-10 minutes to complete. Your responses will be anonymous.

Here is a link to the survey:
http://www.surveymonkey.com/s.aspx

If you have any questions, please contact me at clomalley7@hotmail.com or my thesis advisor Dr. Marilyn Shontz at shontz@rowan.edu.

Please complete this survey Friday, February 20, 2009.

Thank you in advance for your participation!

Sincerely,
Crystal O’Malley

Please note: If you do not wish to receive further emails from us, please click the link below, and you will be automatically removed from our mailing list.
http://www.surveymonkey.com/optout.aspx
APPENDIX C

Follow-up Electronic Letter to Participants
To: [Email] From: clomalley7@hotmail.com

Subject: Professional Development Survey

Body: This email is a second request for your participation in the survey below. As my last email stated, I am a graduate student at Rowan University in the School and Public Librarianship program. I am conducting a survey as a part of my thesis requirement for my Master’s degree. The purpose of this study is to determine if there is a relationship between the amount of professional development media specialists receive relating to library technologies and the implementation of those technologies in their media centers.

I have sent this survey to a small number of participants so I would greatly appreciate you taking the time to answer it. It should take no more than 5 to complete. Your responses will be anonymous.

Here is a link to the survey:
http://www.surveymonkey.com/s.aspx

If you have any questions, please contact me at clomalley7@hotmail.com or my thesis advisor Dr. Marilyn Shontz at shontz@rowan.edu.

Please complete this survey Friday, February 20, 2009.

Thank you in advance for your participation!

Sincerely,
Crystal O’Malley

http://www.surveymonkey.com/optout.aspx
APPENDIX D

List of Chosen Survey Participants
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<td>Karen Tedor</td>
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<tr>
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