HYPOTHESIS

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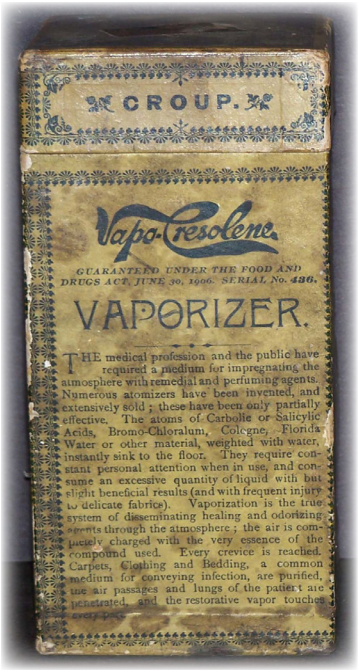

Cover Art (Courtesy of the Alabama Museum of the Health Sciences):

This Vapo-cresolene burner, first patented in the late 1800s, was used to heat various chemicals in the dish above. Patients would inhale the fumes to help "cure or considerably alleviate" respiratory ailments.

ALABAMA MUSEUM OF THE HEALTH SCIENCES

Have an image you'd like see on the cover? Please let Co-editor Lisa know!

HYPOTHESIS (ISSN 1093-5665) is the official journal of the Research Section of MLA. It is published three times a year by the Section: Spring (March), Summer (July/August) and Fall (November). Items to be included should be sent to the Co-Editors by the 15th of the preceding month (i.e., February 15th for Spring, June 15th for Summer, and October 15th for Fall). Copy is preferred by e-mail but will be accepted in other formats. HYPOTHESIS is indexed in the Cumulative Index to Nursing and Allied Health Literature™ and the CINAHL® database. HYPOTHESIS is available online at http://www.research.mlanet.org/hypothesis.

CHAIR'S COLUMN

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As the spring breaks through in what in some parts of the country has been a very snowy winter, MLA members, start to think about our Annual Meeting. We are being asked to "Reflect and Connect" in Washington, D.C., on May 21-26, 2010. As members of the Research Section, we will certainly have the opportunity to connect at our Research Connection event. Chair-Elect Diane Cooper has out together a great program called "Electronic Health Record and Librarians: Potential Roles and Opportunities for Information Research." Check out the details in another article in this newsletter. We can reflect on the content of these great programs. Watch for the new research symbol, a purple triangle, to again designate research papers and posters in the MLA Annual Program and Abstract booklet.

For the 2010 annual meeting, MLA will be piloting an e-Conference meeting registration that will enable members who cannot travel to the meeting to still be part of the meeting community via online access. This might be an economic option for some of you. But for those of you attending in person, we hope you will be able to come to the Research Section annual business meeting on Tuesday, May 25 from 7:30 am - 9:00 am. We'll have updates from our committees and will do some planning for the upcoming year. If there is anything you'd like to see added to the agenda, please just let me know (duddenr@njhealth.org or call 303-398-1483). The Research Connection is scheduled for Sunday, May 23, 7:30 am - 9:00 am. This is the third year for this informal get-together for discussion of research in general or specific research project you may want to discuss with people. Meeet up with old friends and have a cup of joe! A continental breakfast will be served at both meetings.

Our Section Website continues to be the place to go for information about our section and we encourage you to check it out (http://research.mlanet.org/). Our thanks go to Allan Barclay and Nicole Mitchell for their work on the site this year.

All of our committee chairs have done a great job again this year. The Awards Committee co-chairs, Kris Alpi and Ruth Fenske, have continued to update the content on the Awards Program page on the Research Section web site. The Membership Committee Co-chairs, Dee Jones and Beatriz Varman, are working on membership outreach and Beatriz is helping to organize the 2010 Section Shuffle at MLA. Peggy Mullaly-Quijas, Bylaws Committee Chair, has kept current with our section bylaws and found no changes needed. Leslie Behm, as ListServ manager has set up a listserv for the Executive Committee. The Research Mentoring Planning Task Force is focusing on a plan for a "facilitated" research mentor program that will provide personal growth opportunities for members, increase research savvy and productivity, and proactively support MLA's Research Imperative. They have come up with some good ideas. And the Strategic Planning Task Force, headed by Susan Lessick, is just getting started and will move forward in to the next year. They plan to conduct a membership survey to identify needs, issues, and trends and create a mission/vision statement and strategic plan that will inspire and guide Research Section efforts for the next five years. Susan has also represented us as Section Council Member in her role as Immediate Past Chair. She has taken an active role on the Council. My thanks go to all who have carried these activities forward.

Next year we look forward to even greater activity under the leadership of Diane Cooper. I know our new chair-elect-elect, Carole Gilbert will plan a great program for 2011.

Again please plan to attend our annual Research Section business meeting and the Research Connection event. We'll have updates from our committees and will do some planning for the upcoming year. We hope to see you in Washington, D.C.

LITERATURE REVIEW

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Jaggars DE, Jaggars SS, Duffy JS. Comparing service priorities between staff and users in Association of Research Libraries (ARL) member libraries. *portal: Libr Acad*. 2009 Oct; 9(4):441-52.

Using 2006 LibQUAL+ data from thirty-seven Association of Research Libraries libraries, the authors examined service priority gaps between library staff and users.

Library staff set a lower priority on items having to do with the scope and breadth of the collection and the ability of users to find information independently, than did users. "In general, users clearly prioritize the ability to engage in self-directed, unmediated information seeking, utilizing easy-to-use online resources." The authors quote the 2005 OCLC perceptions survey which showed that most users prefer to start information searches with search engines rather than by going to the library or using library websites. It is not clear if this OCLC result is for all users or just users in colleges or universities. These authors' conclusion is that we "must set a higher priority on supporting users' evolving needs and preferences or risk a further reduction in relevance as users increasingly pursue non-library alternatives."

They also found that library staff set a higher priority on affect of services items than did faculty and students. Affect of services has to do with the attitudes and abilities of library staff when serving users. Here they conclude that this "reveals a disconnect between library staff and their users concerning what is most important . . ." In the past, some studies showed that staff attitude was as important as, or more important than, the quality of answer provided.

In their discussion of limitations, they point out that there were many fewer librarian and library staff respondents than there were faculty and student respondents. Also, the response rate for librarians and support staff was only 6.7%. They imply that this was lower than the response rate for faculty and students but don't back it up with figures for faculty and students. They point out that library staff may have responded from the point-of-view of a service provider or from the point-of-view of a user. This is an excellent point. Perhaps if library staff had been clearly asked to answer from the user's point of view or from a provider's point of view, interpretation of the results might be more convincing. They also suggest that tracking trends in misalignment over time would be in order.

This is certainly an important topic. As librarians, we need to understand what our users' priorities are and to adjust our offerings accordingly. As users change, we also need to change.

This study could be replicated using data from medical school libraries that participate in LibQUAL. It would also be interesting for libraries serving the health sciences to design a similar study which clearly specified the point-of-view library staff should take in answering the questions.

Lee GH, Lin YH, Tsou KI, Shiau SJ, Lin CS. When a problem-based learning tutor decides to intervene. *Acad Med*. 2009 Oct; 84(10):1406-18.

A group of authors from Fu-Jen Catholic University in Taiwan studied 636 instances of intervention in discussion by eight experienced PBL tutors. Student participants were enrolled in medicine, nursing, and clinical psychology courses. Forty sessions were videotaped over a period of several years; within a week after each session the tape was shown to the tutors for analysis and discussion of the intention behind each intervention. Qualitative methods were used to analyze the resulting transcripts.

Interventions were classified according to three themes: group process (142), quality of discussion (463), and quality and quantity of reference materials used (31). These 31 reference material interventions were subdivided into eight categories: accuracy (8); representativeness (7); quantity, datedness, clarity, and language

(3 each), and literary value and originality (2 each). Although they provide scope notes for each category, it is a little difficult to understand what some of the categories mean. For instance, "accuracy" refers to "evidence to determine accuracy of information gathered." Does this mean the information wasn't accurate or does it mean the students simply didn't present the credentials of the authors?

Although interventions having to do with quality and quantity of references was less than 5% of the total interventions, this article serves to remind us that PBL tutors should be made aware of and be trained to intervene when quality of information is a problem. One way to approach this might be to create a quick referral guide which could be used to train tutors about what to look for when assessing the quality and quantity of references used in discussion.

Chen HC, Tan JPG, O'Sullivan P, Boscardin C, Li A, Muller J. Impact of an information retrieval and management curriculum on medical student citations. *Acad Med*. 2009 Oct; 84(10 Suppl):S38-41.

The authors point out that in addition to critical appraisal of the literature, EBM has to be backed up by the fundamental information retrieval skills of access, appropriately selecting, and adequately citing resources. First-year medical students for academic year 06/07 had a one-time information retrieval and management workshop by librarians plus a 30-minute follow up visit by the librarian to the group to give individualized feedback. The 07/08 group had the workshop only and the 05/06 group served as the control group. In both 06/07 and 07/08, facilitators also received information retrieval and management workshops by the librarian and were briefed on expectations for learning issue reports and citations and their role.

Evaluation of reports was based on presence or absence of citations, completeness of citations, and the number and type of resources cited. Student and facilitator feedback about the participation of librarians was also gathered.

Based on 2415 reports, the authors found that having an information retrieval and management workshop decreased the number of reports with no documentation, increased the number of citations with complete documentation, and increased the average number of citations for each report. The two workshop groups used quality tools much more frequently than the control group and the workshop/librarian group made more use of primary sources than the workshop only groups. There was also evidence that the workshop/librarian group maintained good habits more consistently over time.

Students and facilitators for 06/07 felt that the librarians' visits were of limited usefulness in improving students' skills and were neutral about having the follow up by librarians the following year. The authors point out that this finding demonstrates the "need to exercise caution in making curricular decisions based solely on satisfaction data." In this case, the data show that the librarian visit was effective even though the visits were not perceived as being useful. At the end of the article, they say they plan to try having the librarian provide individualized feedback online rather than attending a group meeting to provide the feedback.

Prgomet M, George A, Westbrook JI. The impact of mobile handheld technology on hospital physicians' work practices and patient care: a systematic review. *J Am Med Inform Assoc*. 2009 Nov-Dec; 16(6):792-801.

Three Australian authors did a systematic review of thirteen studies on the impact of personal digital assistants on hospital physicians' work practices and patient care. One of three themes they analyzed was medication error prevention. Five of the studies fell into this category. Three of the five concerned using the PDA as an information and decision support resource. They conclude that "among these studies, handhelds affected hospital physician work practices primarily through what information was accessible to them for informed decision making." One study specifically looked at the time it took to find the information needed within a relevant electronic resource vs within a relevant paper resource. Interestingly access times were similar, once the resource was located; this study did not take into account the time needed to locate the paper resource.

However, those using an electronic resource were significantly more likely to change their management of a patient than those using paper resources.

The authors conclude that handheld devices may be beneficial in the three areas they analyzed and point out that the benefits of mobile devices is an underinvestigated area. As more and more health sciences libraries provide information via mobile devices, it will be important to study the impact of this mode of delivery.

Van Moorsel G. Analysis of compliance of hospital libraries with the Medical Library Association staffing standard: examination of the current state of the industry and reconsideration of the standard. *J Hosp Libr*. 2009 Jul/Sep; 9(3):273-85.

Van Moorsel looks at staffing compliance of 56 hospital libraries with the 2002 MLA standard which calls for one FTE library staff for every 750 FTE in the parent organization. Data were gathered via a survey sent on the MLA Hospital Libraries Section listserv. Obviously this is not a representative sample, because hospitals without any library staff would be unlikely to be on the HLS listserv. Although the response rate is not given, assuming this listserv has at least 500 members, the response rate was barely above 10%. The author tells us the average total hospital FTE among respondents was 2865 and the average FTE library staff was 2.4. This is 1.4 FTE less than it should be, according to the standard. He does not give a range for either total hospital FTE or library staff FTE. He does talk about outliers which skew the means and therefore presents medians and eliminates outliers from the analysis.

Although he found a consistently negative variation from the standard, he says that hospital libraries continue to exist and to provide "vital and robust" services. He then suggests that the formula is "overly sensitive to wide variations in staffing levels among the parent institution." Specifically he thinks that it inadvertently handicaps small hospitals and rewards larger hospitals. He says the current standard "appears most appropriate for hospitals of average size." He proposes a new formula which is the square root of the total hospital FTE divided by ten times 1.61803399. (Reading the formula was difficult because a hyphen was typeset as a minus sign.) In the next paragraph, he mentions that this seemingly random number is the "golden ratio," but doesn't explain what the "golden ratio" is or why he used it. He does tell us that "this accommodation allows the library staffing standard to be driven in dynamic relation to organizational size rather than by a fixed denominator." And that "incorporation of the 'golden ratio' harmonizes the library staffing standard in geometric symmetry with organizational size of the parent institution."

Agreeing that using the formula might be useful, I set out to find out more about the "golden ratio." Google led me to Wikipedia which told me this: In mathematics and the arts, two quantities are in the golden ratio if the ratio of the sum of the quantities to the larger quantity is equal to (=) the ratio of the larger quantity to the smaller one. The golden ratio is an irrational mathematical constant, approximately 1.6180339887.

The author is convincing in establishing that this group of 56 libraries is not in compliance with the MLA staffing standard. Although he feels his proposed revision is an improvement, he concludes that at most it serves as a "point of departure toward formulating a more robust staffing measure."

Jordan C, Watters C. Addressing gaps in knowledge while reading. *J Am Soc Inf Sci Tech*. 2009 Nov; 60(11):2255-68.

Having filled in my own gap in knowledge while reading the previous article, this article caught my attention. As these authors point out, sometimes there are differences between the background knowledge the author assumes and the actual background knowledge the reader has.
They argue that even switching to Google to fill a gap in knowledge is too disruptive because of the time needed to switch and develop a query and the necessity to select from an array of results.

They did some preliminary studies to develop a context-sensitive algorithm. The most cost-effective was

a term frequency algorithm which uses the abstracts being read as context and highlighted text as query terms in Wikipedia. The query terms were searched in the title and first 150 words of each Wikipedia article. The result presented to the user is a single article from Wikipedia which appears as a popup box.

Six undergraduate computer science majors were asked to read six abstracts and, for each one, to indicate on a five-point Likert scale their understanding and their confidence in their understanding of the content. Next they reread all six abstracts. For three of the six rereadings they were given the opportunity to highlight passages they didn't understand and to read the popup Wikipedia article. They then again rated their understanding and confidence. After they had finished all six tasks, they also answered a questionnaire on their opinions about the system and their performance.

Results show that, while simple rereading improved understanding and confidence, rereading with the popups resulted in even greater improvement. Confidence increased upon rereading regardless of whether there were popups or not. Most participants did highlight passages, with the average number of passages being 3.23 per abstract. Participants were more satisfied with the system than with a regular search engine when short passages were highlighted than they were for longer highlighted passages. In general, participants were more satisfied when only reading the first paragraph of the popup Wikipedia article was required to reach understanding. They attributed this to the greater disruption required when needing to read more of the Wikipedia article.

Although they cite several prior studies that establish that disruptions are not good and essentially proceeded on the assumption that this is true, I am not convinced that is as big a problem as they portray it to be. Even these undergraduate subjects were not effusive above the advantages. Future studies could ask if undergraduates would even try to follow up on gaps in their knowledge. If so, would they distinctly prefer this system to using a search engine. It would be interesting to repeat that proposed study and this study with graduate students, professional school students, and practitioners.

Warwick C, Rimmer J, Blandford A, Gow J, Buchanan G. Cognitive economy and satisificing in information seeking: a longitudinal study of undergraduate information behavior. *J Am Soc Inf Sci Tech*. 2009 Dec; 60(12):2402-15.

This article continues the theme of undergraduates' information-seeking behavior. This is important to us because students in the health sciences either are undergraduates or they enter our graduate and professional programs after being undergraduates.

Thirteen of twenty-seven students entering an undergraduate program in information management volunteered for a longitudinal study of the acquisition of expertise in information behavior; seven of the subjects completed all four sessions of the study. This group of students was deliberately chosen because "they were being taught how to find, evaluate, and make the most effective use of information in a much more overt way than in other areas of undergraduate studies." The first year of their course of study includes a module on information sources and how to use them. Students were paid a small amount for participating. Participants filled in an initial questionnaire and underwent four semi-structured, individual interviews and observation sessions at approximately six month intervals. Screen recording software and voice recording were used to capture the one hour observation sessions.

They found that most students had previously used a limited range of resources as directed by their teachers in high school. They did not branch out from the direct assignment. There were able to do basic keyword searches on the Internet. In college they continued to be very oriented to concentrating on doing what was necessary to complete an assignment. They went beyond the Internet only when it was necessary to pass. They did begin to reflect on the quality and trustworthiness of the information they found. What they did not change was their information-seeking strategy. They stuck with keyword searching on the exact words in the assignment title. They were not able to use synonyms, to broaden their searches, or to use advanced search techniques, even when their traditional methods were ineffective. Choice of topic or question to be answered

when there was a choice on a take-home exam was determined by what they could find using the skills they already had. They wanted to save time and complete their course work with minimum effort. The authors call this "strategic satisficing." At times failure to develop domain knowledge was a factor in understanding what they found. They were not confident in their ability to process and evaluate the information they found. They tended to stick with Internet searching and textbooks, rather than branching out to more sources that they might not be able to interpret.

It was obvious that faculty were assuming much higher levels of motivation and information search skills than the students had. The primary expertise the students had developed was to complete the assignment with the minimum time and effort.

Throughout the article they contrast the views of one older student with those of the remaining traditional aged students. They make several allusions to growth in information seeking being achieved only when the demands of graduate school or a job require it. They also cite some studies that some satisficing takes place in the workplace, particularly when a great deal of information is available.

For us, this study tells us that undergraduates in the health sciences and entering graduate and professional school students may practice satisficing information seeking behaviors. Some of the earlier studies reviewed for this column point to poor use of information by health sciences students and even indifference on the part of students and faculty to improving information-seeking skills and the use of information. Possibly faculty do not fully understand how underdeveloped students' information-seeking skills are. It is incumbent on us as information professionals to work with faculty to improve the situation.

THE RESEARCH MENTOR

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Authorship Part Two: Order of Authors

This second of two columns on authorship reviews the issues revolving around the order of co-authors: which author should be listed first, second, and last. It additionally reviews the reasons why, under certain circumstances, some disciplines occasionally attach great honor to the last author.

The first column in this series employed the International Committee of Medical Journal Editors' (ICMJE) three criteria for determining whether someone should be included as a co-author. These three criteria were:

"1. substantial contributions to conception and design, acquisition of data, or analysis and interpretation of data;

2. drafting the article or revising it critically for important intellectual content; and

3. final approval of the version to be published." (1)

The first column also referenced the World Association of Medical Editors (2) and the American Medical Writers Association (3) policy statements on authorship eligibility. Finally, the first column reviewed the paired concepts of honor and responsibility inherent in authorship status. While the career benefits (4) derived from co-authorship might be obvious, co-authors seldom consider fully the potential career-jeopardizing liabilities of taking responsibility for the article contents through co-authorship. These previously-made points should be borne in mind when reading this second column.

Once the authors for a manuscript have established everyone who they will include as an author, they will still need to determine the order of these co-authors. Some commentators suggest that co-authors should meet prior to the research project commences to decide deliberately who shall do what tasks and on what timeline. These commentators indicate that this research plan will then determine the order of authors. (5) While this advice might reflect sound project management principles, observers such as Lerner note that not even the most experienced researchers can predict the results that will occur (6) or the many unexpected directions that a research project will take en route toward completion. Nor can one predict accurately how the anticipated research plan will deviate from the initially-conceived breadth and depth of investigation. These factors will affect the amount of work and the needed expertise brought to bear to complete the final research project.

Experienced researchers know moreover that some collaborators might leave the research project while others later might join the endeavor at multiple possible phases. And, as the research project progresses, once heavily-involved collaborators might withdraw some of their commitment whereas lesser-involved collaborators might assume new prominence. Typically, only the principal investigator (or team leader) and the most experienced researcher roles will continue consistently throughout the research project. Oftentimes these two roles are combined in the same person.

Amount of Work

The U.S. National Institutes of Health (NIH) Office of Research Integrity clearly states that:

"Publication must give appropriate credit to all authors for their roles in the research. If more than one person contributes significantly, the decision of which names are to be listed as co-authors should reflect the relative contributions of various participants in the research." Elsewhere, this document indicates the importance "that all authors understand the basis for assigning an order of names…" (7) Co-authors engaged in deciding the order of authors should use the amount of work that was actually performed on the research project as a major consideration. Carefully documenting one's involvement in a research project as it progresses from question formulation to conception to implementation to reporting through publication appears to provide a more accurate record for determining order of authors.

The "Activities" and "Hours" columns on Table One provide one example of how each co-author can track her or his work on a research project. The team leader could distribute this or a similar table to all collaborators early in the research project. The co-authors then can keep track of their work and post their monthly updates with this or a similar form in a shared digital workspace.

Type of Work

Sheer effort alone might not serve as the sole criteria for determining the order of authors, however. A beginning researcher might diligently work for 20 hours on a task that an experienced researcher might only need a couple of hours to complete. Recently this author received an email from a colleague who wrote: "It took us 4 months to get an exempted IRB study approved." (8) This author recalls all too well how an institutional review board (IRB) application took him four or five times longer to complete when he was less experienced compared to his present required time frame for completing an IRB application process. One application, in particular, probably took him 80 hours to complete. For these reasons, Table One offers different levels of type of work or expertise required to complete a listed activity.

Continuity of involvement throughout all stages also represents another dimension for consideration when arranging the order of authors. Were all researchers involved equally at every phase? Or, did some have only superficial and episodic involvement as the research project progressed? Continuity also relates to the paired concepts of honor and taking responsibility for the final research project when ordering authors on a manuscript.

One Method

Table One offers only one example of a tool that might assist a group of researchers can equitably arrive at an ordering of authors' names. Table One follows the broad phases of the research and publication processes in a manner transparent to all involved or to an objective third party observer. It takes into account the amounts of effort expended, the type of work, and the required levels of expertise. Table One codifies the practice by leading journals such as JAMA, (9) the New England Journal of Medicine (10) and BMC Public Health (11) of listing the roles of all of the authors when submitting manuscripts. Table One makes it easy for a group of co-authors to document their individual contributions in the sections following articles where such information usually appears. Different groups of co-authors might want to experiment with adapting Table One to better reflect their shared values and the particular circumstances of their own research project. Interested readers might want to consult a particularly simple alternate method for quantifying co-authors' contributions for determining order of authors on a manuscript. (12)

The First Author

How does the team define first author status? Oftentimes the research team easily identifies the lead author since this person initiated the project and had sustained involvement throughout the research project. The NIH Office of Research Integrity writes that the first author "...has a greater responsibility than other co-authors to vouch for the integrity of the research report and should make every effort to understand and defend every element of the reported research...." (13)

The Mentor as Last Author

Some disciplines consider the last co-author to be a place of special honor under certain circumstances. These disciplines reserve the last author slot for the most experienced researcher who has mentored less experienced colleagues throughout the entire research and publication processes. Within these disciplines this last position only grants honor when such an experienced researcher has this extensive experience. Otherwise, this last position belongs to the co-author with the smallest overall contribution to the research project.

Resolving Dilemmas

Sometimes a collaborative research project group divides the work equally among team members. These same members have been involved continuously in all major phases of the research project. Some have suggested randomizing the names (14) in such egalitarian instances to decide the order of authors, and indicating the method in the authors' contribution section since most readers normally interpret the order otherwise as corresponding to the extent of each co-author's expended effort. (15) If all authors have contributed equally other considerations might take precedence. Was one author the team leader or principal investigator? Does one author have a special need to be credited as first author such as happens in tenure and promotion circumstances? The other co-authors might still randomize their order from the second author's position onward to the end of the authors list. Any groups of authors deviating from ordering the authors by effort level should indicate in a brief note describing their methods or rationales for this deviation.

Conclusion

Co-authorship status celebrates the completion of a successful collaboration among researchers. As noted in the first column, co-authorship reflects one's having made a significant contribution to different phases of the completed research project. This second column has outlined the major considerations for determining the order of authors on a publication. Co-authorship represents neither a social club nor gang membership status. Table One assists collaborating co-authors in minimizing the social or personal feelings, or possibly even the personality differences, that might enter into decisions about order of authors. As researchers, we should embrace any reasonable method for objectively assigning credit for completing our research projects.

Table One. Determining Order of Co-Authors

Date(s)	Hours	Specific Activities	C	T	P	E	Other
		Formulating the Research Question					
		Conception and Research Design					
		Securing IRB Approval (if applicable)					
		Acquisition of Data					
		Analysis and Interpretation of Data					
		Drafting & Editing Manuscript (or alternate communication)					
		Revising Manuscript Following Editorial Peer Review					

Legend:
C = Clerical: scheduling meetings; data input; corresponding with study participants
T = Technical: performing data analysis; designing and populating a project database
P = Professional: formulating the research question; interpretation of data
E = Expert: research design; higher-level data analysis

References

1.International Committee of Medical Journal Editors. Uniform requirements for manuscripts submitted to biomedical journals: Ethical considerations in the conduct and reporting of research: Authorship and Contributorship. International Committee of Medical Journal Editors, 2009. Available from: <http://www.icmje.org/ethical_1author.html>. Accessed 10 October 2009.

2.World Association of Medical Editors. Policy statement on authorship, 2007. <http://www.wame.org/resources/policies#authorship>. Accessed 11 January 2010.

3.American Medical Writers Association. AMWA position statement on the contribution of medical writers to scientific publications. 2003. <http://www.amwa.org/default.asp?id=308>. Accessed 30 January 2010.

4.McKnight M. Professional Publication: yes, you can! *Journal of Academic Librarianship* 2009 Mar; 35 (2): 115-6.

5.Albert T, Wager E. How to handle authorship disputes: a guide for new researchers. The COPE Report 2003: 32-4.

6.Lerner J. The neuroscience of screwing up. *Wired* 2010 Jan; 18 (1): 80-5, 121.

7.National Institutes of Health (US). Office of Research Integrity. Guidelines for responsible conduct of research. Section 4a Criteria for authorship. Available from: <http://www.pitt.edu/~provost/ethresearch.html>. Accessed 30 January 2010.

8.Esparza J to the author. Email communication. 22 February 2010.

9.*JAMA; Journal of the American Medical Association*. JAMA authorship responsibility, financial disclosure, acknowledgement, and copyright transfer/publishing agreement. Available from: <http://jama.ama-assn.org/misc/ifora.dtl>. Accessed 16 February 2010.

10.Drazen JM, Curfman GD. On authors and contributors. *New England Journal of Medicine*. 2002 Jul 4;347(1):55.

11.BMC Public Health. Instructions for BMC Public Health authors. Manuscript sections for research articles. Authors' contributions. Available from: <http://www.biomedcentral.com/bmcpublichealth/ifora/>. Accessed 14 February 2010.

12.Ivaniŝ A, Hren D, Sambunjak D, Marušić M, Marušić A. Quantification of authors' contributions and eligibility for authorship: randomized study in a general medical journal. *Journal of General Internal Medicine* 2008 Sep; 23 (9): 1303-10.

13.National Institutes of Health (US). Office of Research Integrity. Guidelines for responsible conduct of research. Section 4b Order of authors. Available from: <http://www.pitt.edu/~provost/ethresearch.html>. Accessed 30 January 2010.

14.Strange K. Authorship: why not just toss a coin? American Journal of Physiology. *Cell Physiology*. 2008 Sept; 295 (3): C567-75.

15.Feeser VR, Simon JR. the ethical assignment of authorship in scientific publications: issues and guidelines. *Academic Emergency Medicine* 2008 Oct; 15 (10): 963-9.

SUPPORT OF EVIDENCE-BASED PRACTICE THROUGH PROMOTION OF CINAHL RESOURCES

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Purpose

To track the impact of making CINAHL database available to nurses at UT Medical Center and promoting its use for evidence-based practice.

Background and Setting

University of Tennessee Medical Center is a non-profit 600-bed teaching hospital in an urban setting affiliated with the University Of Tennessee Graduate School Of Medicine. The Preston Medical Library is an academic medical library. Preston Medical Library serves the information needs of both the UT Graduate School of Medicine and the UT Medical Center.

The UT Medical Center nurses on the journey to Magnet status are involved in evaluation and implementation of processes to improve patient care and safety through a shared governance model which is comprised of unit-based and house-wide committee work (1). The house-wide committees are Nursing Research Council, Nursing Quality Council, Nursing Practice Council and Nursing Professional Development Council. Since decisions in the Magnet necessitate evidence-based information, there was a need for appropriate nursing resources and increased integration of library services (2, 3). This need was the driving force behind the project being described.

In 2008, a library faculty member was asked to join each of the four Councils and discussions began with the Chief Nursing Officer (CNO) on evidence based practice resources. It is recognized that databases beyond MEDLINE, including Cumulative Index of Nursing and Allied Health Literature (CINAHL), are necessary for comprehensive searching of the nursing research literature (4). The library, because of its reporting structure and source of funds could not purchase nursing resources without funding by the Medical Center. Fortunately the CNO recognized the librarians as the experts in selecting, acquiring and providing access to knowledge based information.

Methodology

Preston Medical Library obtained a 3-month trial subscription to CINAHL. The Preston librarians and University of Tennessee Medical Center Nursing Quality and Research Councils used forums provided though the Council structure to educate nurses on the use of CINAHL for searching evidence based practice (EBP) information. Through this collaboration, several educational promotions to nurses were held during the trial period. Promotion of this resource to UT Medical Center nurses included, articles in the shared governance newsletter, library presentations to the shared governance Councils and hosting an NNLM Evidence Based Practice seminar.

The vendor-partner in the project was Ebsco Publishing, the sole provider of CINAHL. Ebsco worked directly with the library to provide access and tracking information on the number of sessions, searches, and content use. This data was used to evaluate the impact of the promotion efforts and the availability of the database subscription on nurses' actions to look for research articles. SPSS software was used to determine if significant differences occurred in CINAHL use.

Results

Differences in the numbers of sessions, searches, and content use of CINAHL before, during, and after the 3-month trial subscription and promotion period were significant (alpha.05). Nurses used CINAHL more after than during the promotion period.

Use of CINAHL increased during the trial period and after in relation to marketing and educational efforts

jointly supported by the library and the nursing Councils (Figure 1-2). Further research is needed to assess impact on evidence-based decision making. Nurses also increased requests for mediated searching from the library during this time (Figure 3).

Discussion

After the trial and evaluation was complete, the UT Medical Center's CNO decided to move forward with the purchase of CINAHL. Because of the libraries expertise in licensing and providing access to knowledge based information, it was decided that Preston Medical Library would manage this aspect of the purchase and invoice the Medical Center for the cost of the product. Another impact of this trial period and the training and support offered by the librarians was a strengthening of the relationship between the librarians and the nursing staff. This is demonstrated by both the increased number of mediated search requests and by increased collaboration between nurses and librarians, within the structure of the Nursing Councils.

References

1. American Nursing Credentialing Service (AANC). Magnet Program Overview. Available from: <http://www.nursecredentialing.org/Magnet/ProgramOverview.aspx>. Accessed 08 April 2010.

2. Brown CE, Wickline MA, Ecoff L, Glaser D. Nursing practice, knowledge, attitudes and perceived barriers to evidence-based practice at an academic medical center. J.Adv.Nurs. 2009 02;65(2):371-381.

3. Larrabee JH, Sions J, Fanning M, Withrow ML, Ferretti A. Evaluation of a program to increase evidence-based practice change. J.Nurs.Adm. 2007 06;37(6):302-310.

4. Allen MP, Jacobs SK, Levy JR. Mapping the literature of nursing: 1996-2000. J.Med.Libr.Assoc. 2006 Apr; 94(2):206-220.

Figure 1

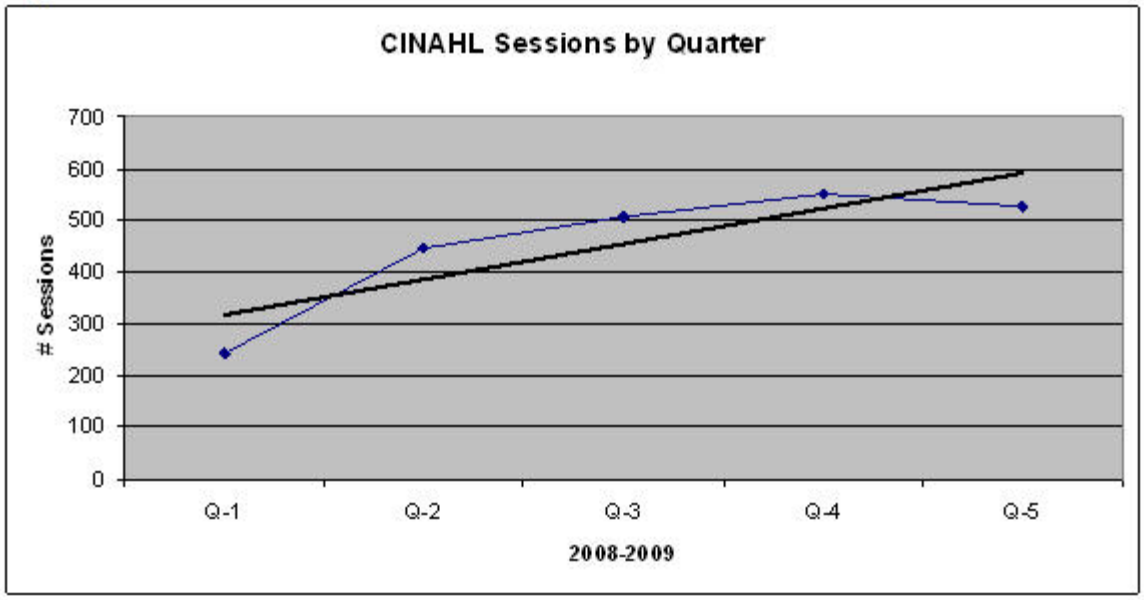


Figure 2

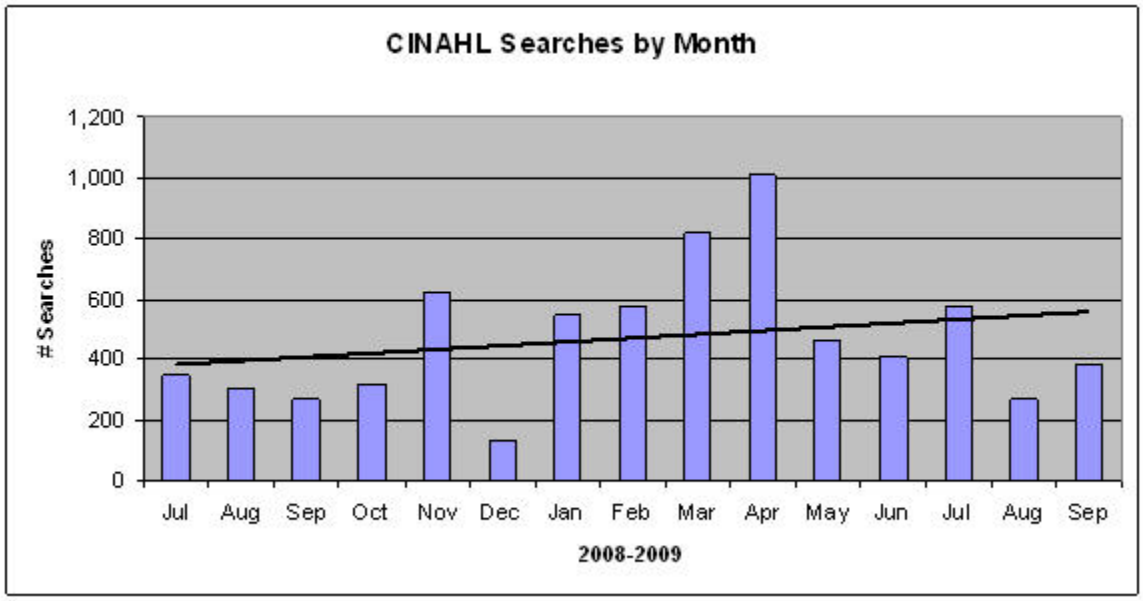
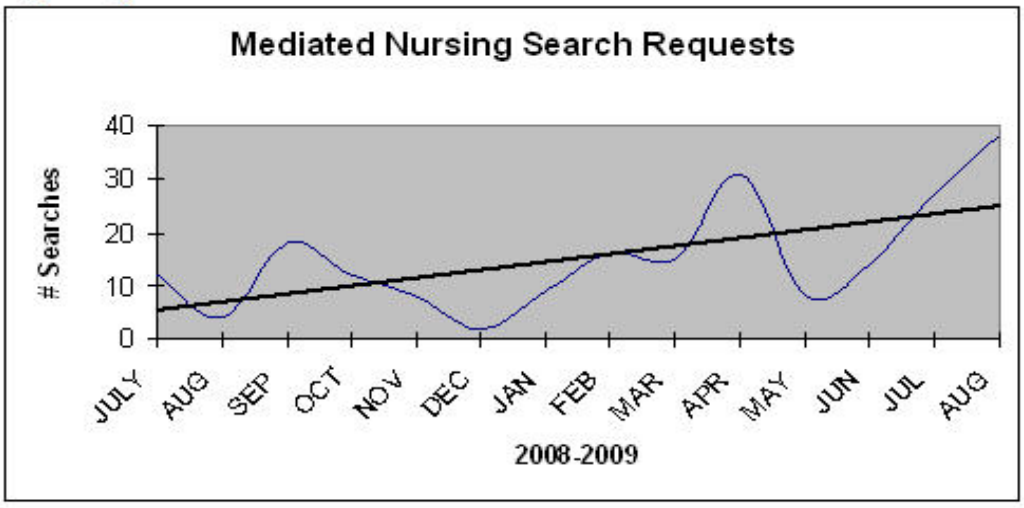


Figure 3



BOOK REVIEW: *Academic Libraries, Quality, and Assessment*

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Munde G, Marks K. *Surviving the Future: Academic Libraries, Quality, and Assessment*. Oxford: Chandos Publishing, 2009. ISBN: 978-1-84334-477-3. $95.00. Distributed by Neal-Schuman Publishers.

One of the hardest parts of research can be deciding on what questions to try to answer. Drs. Munde and Marks encourage you to select a few that matter and get on with measuring them to manage them. These 11 chapters provide an introduction to the issues of measuring quality and advise librarians on creating a culture where the findings from research about library performance and outcomes can be applied. At first browse, Munde and Marks have written a very readable book for library managers at all levels that will move them towards more effective assessment. At deeper review, it reveals a wealth of ideas for all information professionals to think about how to efficiently evaluate the impact, outcomes, value and benefit of their activities. Those new to academic libraries will find this a great introduction to the issues to be researched while those new to research will find this a straightforward guide to focusing on what matters and devising metrics to examine quality in any type of library. Chapters on faculty, postgraduate and undergraduate student success and library engagement focus on the academic environment with postgraduates being primarily PhD students rather those pursuing clinical doctoral degrees; otherwise the content is applicable in corporate and hospital settings. Munde and Marks end with an exhortation to communicate the results of your assessments to the community you serve saying "If libraries truly wish to improve, then all information is valuable."

Both authors have extensive experience with strategic planning, assessment and library services. Dr. Gail Munde, now a professor of library science at East Carolina University, was Associate Dean of University Libraries at the University of Nevada, Las Vegas where Dr. Kenneth Marks was Dean of University Libraries. While $95 may seem a high price for a concise 200 page paperback, the authors have saved us countless hours of searching and reading the library science, business, education, and psychology literature on consumers, quality and academic achievement by summarizing many diverse studies in this well referenced guide. The only aspect not fully documented is communicating your assessment results effectively. For those already well-informed about things like SMART objectives and the balance scorecard approach, Munde and Marks bring international perspectives from the literature. Seven pages of the chapter on performance indicators consist of a comparison table of performance indicators and standards from the International Federation of Library Associations and Institutions (IFLA) and the International Organization for Standardization. This is a great reference, but timing prevented the authors from using the final version of the 2nd edition of the IFLA publication Measuring Quality; Performance Measurement in Libraries by Roswitha Poll and Peter te Boekhorst (K.G. Saur, 2007). The only area of the book that disappoints is the index which does not adequately reflect the wealth of information offered on briefly introduced but interesting topics such as library roles in recruitment, doctoral student dissertation literature reviews, and library staff publications.

<http://www.neal-schuman.com/bdetail.php?isbn=9781843344773>

RESEARCH SECTION DOINGS AT MLA 2010

The Research Section will sponsor several informative and networking activities at MLA 2010 in Washington, DC.

Research Connection will be held on Sunday, May 23 from 7:30 am-9 am.

This will be an informal meeting for MLA participants to discuss their research projects or interests with mentors and experts. A light breakfast will be served.

New Voices (session) will be held on Sunday, May 23 from 2:45 pm-4:15 pm.

The Research Section is co-sponsoring with the Medical Library Education Section this session where current master's and doctoral students and recent graduates (within one year) will contribute papers on their emerging research. Presentations will illustrate how new and future librarians are connecting what they learned in the classroom with current practice and research in the field of medical librarianship. This is a great opportunity for the Research Section to support new librarians in the research process early in their careers.

Research Section Business Meeting will be on Tuesday, May 25 from 7:30 am-9 am.

The annual business meeting will cover the activities from the past year and new items for the coming year. A light breakfast will be served.

Electronic Health Record and Librarians: Potential Roles and Opportunities for Information Research (session) will be held Wednesday, May 26 from 9 am-10:30 am.

This is the Research Section's sponsored program. This session will include two invited speakers with expertise in the implementation of electronic health record systems. Rear Admiral Theresa Cullen is a physician and chief information technology officer with the Indian Health Service. She implemented an electronic health record system for a nationwide healthcare system. She will share the process along with clinicians' information needs. The second speaker is Sara Pimental who has been involved in the interoperability between a website for clinicians and the electronic health record. She will discuss opportunities and challenges for librarians. In addition to the two speakers, three librarians will present their research projects in relation to electronic health records. This current and timely subject will help librarians understand the electronic health record better and generate new ideas on how they may participate in their institution's implementation. Ideas for research projects will be discussed.

Submitted by:
Diane Cooper, Chair-Elect/Research Section

HYPOTHESIS

The Journal of the Research Section of MLA