

# Collaborative Information Seeking

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## ABSTRACT

This paper will discuss key aspects of collaborative practice for researchers and professionals, who use or intend to use collaboration in practice or research. It will introduce our understanding of collaboration, then briefly review supporting research, explore how researchers collaborate with teachers and related professionals, and explore how teachers have integrated peer collaboration into their teaching styles. It concludes with a call for further research and research that uses appropriate methodologies, including Activity Theory and Q methodology.

## General Terms

Design, Theory, Collaboration

## Keywords

Collaborative, Information Seeking, Library Science, Activity Theory, Q Methodology

## 1. INTRODUCTION

Collaboration is not a foreign concept to our society. Information workers engage in collaborations with others for almost every aspect of their working lives. Little, if any, research occurs without this collaboration. Prior to the ready presence of the internet, these collaborations took place over extended periods. Outside the immediacy of face-to-face collaboration, the collaborations were based on publishing and indexing cycles and delivery via the postal mail. The quickest way was for researchers to call others for information or request it by mail. With new technology, researchers now collaborate online through instant communication with other professionals, Skype, email and related technologies. These communication facilities allow professionals to interact almost instantaneously.

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## 2. COLLABORATION

### 2.1 Collaboration among Researchers/Professionals

Collaboration is no longer limited to researchers or professionals in one area or discipline. Two or more researchers can collaborate, in an area of interest, to reach a common goal. There are four key components for researchers and educators to successfully collaborate in practice and research. They include equal partnerships, bilateral communication, nonhierarchical collaborations, and appropriate dissemination of outcomes.

Establishing a trusting relationship between two or more professionals from different disciplines or professions must be the first component of research/practice collaboration. This process is done by attending several meetings and voicing their legitimate concerns prior to the collaborative effort. Once the relationship is established, the researchers should provide each other with access to every aspect of the research to reinforce that trusting relationship.

Explicit communication is key to successful collaboration. Every discipline has its own “language”. Each collaborator will bring a certain amount of expertise and cultural knowledge from their discipline or profession. However, it is essential that all collaborators ensure they are clear and concise when communicating with each other. Communication is not limited to conversations. Communication includes processes, procedures, and documentation. Effective communication is critical to keep all of the collaborators informed about the research progress and any new developments.

Nonhierarchical approaches to collaboration ensure that no one researcher is viewed to have more power or authority than the others. This can be achieved by making each person a co-investigator in the project proposal.

Once the research is complete, appropriately disseminating the results is a key part of the collaboration. Dissemination of the results provides the collaborators with feedback and can potentially result in new research, data or publications. Public dissemination/collaboration serves to keep everyone informed and ensures that everyone’s input is acknowledged and appreciated.

Collaboration between different researchers, educators, or professionals has several benefits arising from working together on a common problem to attain their goal. The scarcity of

resources and our uncertain economy can be partly overcome by the strength provided by collaborative projects. Collaborating allows collaborators to come together, share their expertise, to conduct research efficiently to gain a greater effect.

## 2.2 Collaboration and Teacher Research

Society does not associate teachers with academic researchers and educational scientist. Teachers are considered to be amongst the audience that implements academic researchers' findings and learning techniques. However, collaboration suggests that those who implement the results should be considered and acknowledged as part of the research team. Teachers and academic researchers can each bring a unique perspective to research. Collaboration allows teachers and academic researchers' to brainstorm and bring their experience, interest, and diverse ideas together to work towards a common goal. At different points in collaborative research, it is expected that one will have more knowledge or skill than the other. This is when the collaboration becomes beneficial. Without collaboration, teachers are limiting their ability to contribute and influence the area or expertise that they are most familiar with.

Thus, collaboration has several benefits for teachers. First, collaboration acknowledges the active contribution of teachers, protecting them from exploitation, since they are sharing and interpreting data together. Second, collaboration ensures that teachers' views are represented in the literature and acknowledge that production is not unidirectional. Third, collaborative research facilitates publication for teachers, who would otherwise have much less access to research tools, journals, conferences, and research networks. Lastly, collaboration can create alliances or coalitions, with several other disciplines or academic organizations, which can influence policymakers and help shape educational legislation.

## 2.3 Collaborative Learning among Students of Higher Students

The use of collaborative learning is increasing in higher education as a means to promote discussion and student peer learning. Higher education collaboration has provided many benefits to the learning environment. As effective collaboration increases, students' academic motivation and their overall feeling of success increases as well. The ability to collaborate helps students develop in a relatively safe setting where they can enhance their ability to work in larger groups.

Miller and Benz structured two student interactions using computer-mediated conferencing (online threaded discussion) and the fishbowl technique. These two techniques require similar levels of student participation. As for the computer-mediated conferencing, the researchers used VAX Notes Conferencing, a text-based conferencing system, by which people in different locations can conduct on-line conferences. As for the fishbowl technique, a large group of students were divided into 2 groups, the in-group and the out-group. The in-group has the primary responsibility to solve a particular problem, and the out-group will observe, listen, and provide advice about the problem-solving efforts of the in-group.

To test the hypothesis, 52 students participated in this study, 38 enrolled in an upper-division research methods course and 14 students enrolled in an upper-division psychology course at the University of Nebraska at Kearney. The students were asked to engage and complete a questionnaire about their experience

and how effective the collaborative interaction was to reach their goal.

The questionnaire results indicated that the fishbowl technique was perceived as providing somewhat greater benefits in problem-solving; however, both computer-mediated conferencing and the fishbowl technique had a positive effect on student collaboration although students viewed both techniques positively.

As collaboration is being increasingly recognized, in areas from education to industry, it is important that this development be supported by research and research that is grounded in collaborative practices. The author has been engaged in a series of research studies over a period of years that have looked at the collaborative act in numerous settings including the dissemination of health-based information, information sharing in industrial settings and information sharing by and amongst academics. Most recently, individuals with acknowledged disabilities engage the author in a project that seeks to address inequalities in access to programs in higher education.

The methodologies that have been applied to much of this research have included Q Methodology, Active Theory and importantly combinations of both. The research in many instances has been conducted internationally and the collaborative groups of researchers, includes contributors from, Australia, China, USA, Korea, Canada, Japan and Denmark. The results of the studies have been disseminated to conferences internationally as well. It is important that developments in collaborative research include all of us and that we study the nature of collaboration itself.

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## 4. REFERENCES

- Al-hawari, M., Meloche, J. & Al-halabi, S. A Preliminary Investigation of the Factors that Influence the E-learning Adoption in Higher Education Institutes in emerging societies. In T. Bastiaens et al. (Eds.), *Proceedings of World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education, AACE*. pp. 2345-2352. 2009, Chesapeake, VA.;
- Alkayid, K., Hasan, H., Meloche, J., Simulating information exchanges to investigate the utility of public health web sites. *Transforming Government: People, Process and Policy*, 3(3): 271-288, 2009.
- Banna, S., Alkayid, K., Hasan, H, Meloche, J., Usability Testing of Public Health Web-Based Information Systems. *European and Mediterranean Conference on Information Systems 2009 (EMCIS2009)* July 13-14 2009, Izmir, Turkey.
- Banna, S., Hasan, H, Meloche, J., Opportunities For Interactivity In Public Health Websites: A Content Analysis Approach, *European and Mediterranean Conference on Information Systems 2009 (EMCIS2009)* July 13-14 2009, Izmir, Turkey.
- Christianakis, M. Collaborative research and teacher education. *Issues in Teacher Education*, 19(2):109- 125, 2010.
- Clarke, R. J. & Meloche, J. A. Structure, function and evaluation of SME service encounters. *In 4th International Conference on Supply Chain Management and Information Systems*

- (SCMIS2006); Ho, C. Eds.; Institute of E-Commerce, National Chung Hsiing University: Taiwan, 2006; pp 230-236.
- Eustace, K., Meloche, J. A. & Henri, J. Developments in Tele-learning professional practice in higher education: less teaching, more learning. *Electronic Journal of Instructional Science and Technology*, 7(1):1-15, 2004.
- Hashim, N. Hazlina., Hasan, H. & Meloche, J. (2009). What's new in online news?. *Pacific Asia Conference on Information Systems*, 1-13, 2009, pp. 1-13.
- Hasan, H. M., Meloche, J. A., Pfaff, C. & Willis, D. Beyond Ubiquity: Co-creating Corporate Knowledge with a Wiki. In *UBICOMM*; IEEE Inc.: 2007;
- Hashim, N. H., & Meloche, J. A., Australian Online Newspaper: An Exploratory Study on Internet Savvy Users, Using Q-Methodology. *Journal of Human Subjectivity*, 5(2),2007.
- Jayasuriya, A. R., Caputi, P., Gregory, P. & Meloche, J. A. The role of achievement goal orientation in the development of self efficacy during computer training. In *Managing Diversity in Digital Enterprises: Proceedings of the 11th Pacific Asia Conference on Information Systems (PACIS 2007)*; School of Business, University of Auckland: Auckland, 2007; pp 105-112.
- Meloche, J. A., Hasan, H. M. & Papakosmas, A. Support for Asynchronous Interaction in Group Experiential Learning. *Outlines*, 6:47-62, 2004.
- Meloche, J., Hasan, H., Willis, D., & Pfaff, C., Qi, Y., Co-creating Corporate Knowledge with a Wiki. *The International Journal of Knowledge Management*, 5(2), 2009.
- Meloche, J. A., Hasan, H. M. & Mok, M. Q-methodology for the active process of knowledge management. *International Journal of Knowledge Culture and Change Management*, 6(3): 13-18, 2006.
- Meloche, J., & Hasan, H., ICT Devices as Ubiquitous Tools for Information Seeking Activity. *BICOMM '08 Proceedings of the 2008 The Second International Conference on Mobile Ubiquitous Computing, Systems, Services and Technologies*, 2008.
- Meloche, J. & Qi, Y. Enhancing students' academic experience through learning communities with the development of a Collaborative Learning Project. In G. Richards (Ed.), *Proceedings of World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education 2007* (Quebec City) pp. 1702-1708. Chesapeake, VA: AACE.
- Meloche, J. A. & Eyre, G. Global digital library development. In *A student centered approach to the use of ICT in distance education: a Q study*; Chen, C. Eds.; Tsinghua University Press: Beijing, 2001; pp 521-523.
- Meloche, J. A. The importance of critical thinking in distance education. In *Lifelong Learning Conference*; Central Queensland University Press: Queensland, 2000; pp 270-273
- Meloche, J. A. Q Methodology as a research methodology for human computer interaction. In *OzCHI '99*; Charles Stuart University: Charles Stuart University, 1999; pp 149-152.
- Meloche, J. A. & Crawford, K. A Metaphorical Study of Information Seeking. In *14th Annual Conference of the International Society for the Scientific Study of Subjectivity*; Hanyang University: Korea, 1998; pp 109-127.
- Miller, R.L. & Benz, J.J. (). Techniques for encouraging peer collaboration: Online threaded discussion or fishbowl interaction *Journal of Instructional Psychology*, 35(1): 87-93.
- Qi, Y., Meloche, J., The Power of Play in Knowledge Management. In *New Trends in Information and Service Science*, 219-224, July 2 2009.
- Qi, Y., Meloche, J., Acknowledging the Importance of Play, with the use of Flight Simulator Training, as a Way to Advance Knowledge Management Practices. *The International Journal of Knowledge, Culture and Change Management*, 9(8), 2009.
- Paradis, T. W. & Smalldon, K. L. 2007. Unite and conquer: A Collaborative approach to faculty development. *Assessment Update*, 19(1): 6-8, January-February 2007.
- Reback, C.J, Cohen, A.J., Freese, T.E., & Shoptaw, S. Making collaboration work: key components of practice/research partnerships, *The Journal of Drug Issue*, 837-848, 2002.
- Yang, B., Liu, Z., Meloche, J., Visualization of the Chinese academic web based on social network analysis, *Journal of Information Science*, 36(2):131-143, 2010.