**Rapid Bibliographic Instruction and Cambourne’s Theory of Learning**

Glenn Masuchika and Gail Boldt

**Abstract:** Librarians who teach “rapid” bibliographic instruction sessions (one-time, less-than-one-hour bibliographic instruction sessions to first-year, undergraduate students) are often torn between two philosophies : a “critical mass” philosophy emphasizing a minimum amount of databases that must be introduced with little actual time for student searching of the databases, and a “skills-oriented” philosophy emphasizing the introduction of one or two databases which the students have adequate time to hone their search skills with one-on-one interaction with the librarian. According to Brian Cambourne’s Theory of Learning, neither philosophy is effective without certain preparations of and expectations from the student.

**Concerns of a librarian**

Bibliographic Instruction (BI) in an academic library is one of the primary meeting points between the professional librarian and the student. BI exists in many forms ranging from semester-long, for-credit, classes, to a limited-time, mini-course, to a one hour library resources introduction to the incoming student. However for many bibliographic instruction librarians, a majority of their sessions are limited to a one-time, one-hour “rapid” session, and within these severe constraints, they are to teach incoming students many of whom have never stepped inside an academic library nor have any experience or knowledge researching for academic paper about the informational resources available.

Many colleges and universities overflow with online databases and choosing which ones to introduce to then poses a difficult question. There is still a struggle whether the librarian should lead with an overview of the traditional online library catalog usually predominated with the traditional physical media : books (usually not e-books), magazines (not articles), government documents, maps, and paper bound indexes, or concentrate almost exclusively on the online databases which easily and immediately bring forth to the student an abundance of newspaper, magazine and scholarly journal articles, reports, essays, etc. in digital and email-able forms. Both are important and there is not enough time to adequately introduce the student to both. If the professor of the class insists that the students should also be given a short talk of the library’s policies in general, the time needed to cover information resources is further shortened.

**Literature Review**

The field of bibliographic instruction is a well-established area of study and concern for the professional library associations. The Instruction Section (ACRL Instruction section 2011) of the Association of College and Research Libraries, a division of the American Library Association, has been an active section of the professional organization since its beginnings as an ad hoc committee since 1971 (ACRL Instruction section chronology 2011).

A cursory search through three library- and information-related online databases reveals that the phrase “bibliographic instruction” retrieves many citations. The results, retrieved May 10, 2011, are below:

 Full-text Abstract Title

Library and Information Sciences Abstracts (LISA) (Ebsco) 779 665 294

Library, Information Sciences, and Technology Abstracts (Ebsco) 1008 803 327

Library Literature and Information Sciences (H.W. Wilson) 5928 18 450

The vast majority of bibliographic instruction articles are methods-based; expositions on the pedagogical techniques used in successful teaching. There are numerous articles that advocate library and information schools to offer courses in curriculum and design of bibliographic instruction courses. Other popular topics include teaching competencies for librarians and professional teaching development for librarians. Crawford and Feldt (2005) surveyed the literature of bibliographic instruction in professional library journals and found “the most frequent types of articles were those classed as essays, which included articles on current developments and the philosophy of instruction, and articles discussing instruction for searching online catalogs and databases” (p.177).

However, the number of citations retrieves drops when the phrase “learning theory” or “education theory” is added as a co-search phrase.

With “learning theory as a searched co-phrase Full-text Abstract Title

Library and Information Sciences Abstracts (LISA) (Ebsco) 9 5 2

Library, Information Sciences, and Technology Abstracts (Ebsco) 9 11 2

Library Literature and Information Sciences (H.W. Wilson) 11 0 1

With “education theory as a searched co-phrase Full-text Abstract Title

Library and Information Sciences Abstracts (LISA) (Ebsco) 0 0 0

Library, Information Sciences, and Technology Abstracts (Ebsco) 1 1 0

Library Literature and Information Sciences (H.W. Wilson) 1 0 0

Despite the paucity of works directly concerned with bibliographic instruction and learning theory, there are a few articles that discuss the connections between bibliographic instruction and learning theory, however most of the articles are brief summaries of the fields. Piette (1995) gave an overview of the relationship between bibliographic instruction and the learning theories expounded by James Bruner, Robert Gagne, M. David Merrill, Charles M. Reigeluth, David Kolb, Willianj Perry, John Keller, Diane Nahl-Jakobovits and Leon Jakobovits, and John Seely Brown. Mellon and Pagles (1987) discussed several learning theories that have implications to designing bibliographic instruction. Cook (2008) wrote a brief history of educational theory summarizing the objectivist and constructivist pedagogical theories and their relationship to the direct instruction methodology and the student-centered learning methodology as they pertain to bibliographic instruction. Even in the distant past, there were few articles written about the application of established education or learning theory to the field of bibliographic instruction. Johnson (1986) created an annotated bibliography on this subject and listed only eighteen articles. There is little in the literature that seek an indepth attempt to find an educational theoretic foundation to a specific method of bibliographic instruction.

**The Two Teaching Philosophies of Rapid Bibliographic Instruction**

Librarians are torn between to basic philosophies in pedagogy, and depending on the professional philosophy of the librarian, they may adopt either. For the sake of this paper, I shall designate the first philosophy as the “critical mass” philosophy. A librarian may feel that there is an obligation to directly inform the student of those basic information resources, a specific number of mainly full-text article/essay retrieval online databases that form a “critical mass”, those databases that are essential and necessary and are needed “right now” to do quality work, and not in preparation for a “probable” assignment in the near future. This is a pragmatic approach. It is based on the idea that there is nothing intuitive about knowing which resources are important and essential, and it is the duty of the librarian at an instructional session to start the library’s website and almost lead the student to the location of the active links that will bring in the needed information to the student. If anyone looks at the typical college or university library webpage, the map of the pages are highlighted with numerous links, very few with descriptions as to what the database can retrieve, mostly due to the high value of the real estate of the page. The new student can easily loose themselves, waste time and feel their frustration and anxiety growing as they stumble from one link to another seeking a database their will deliver the information that will fulfill their needs. Thus, the purpose of this “handholding and showing” is to directly inform the student where the databases are and what they do, similar to introducing an apprentice carpenter the hammer, saw, and screwdriver and telling them what they do.

A second pedagogical philosophy for the sake of this paper I shall designate as the “skills-oriented” philosophy. This philosophy emphasizes the skills and techniques necessary to perform better searches on online databases, educating, teaching and in some cases, training the student via hand-on sessions where the interaction between the librarian and the student is the method of instruction. This method is more time-consuming for the librarian, especially for larger classes, where the librarian must oversee the results of each students attempts at searching and comment and correct each student individually, the philosophy is based on the belief that the work of these sessions will become a solid foundations of skills and techniques that the student will take away from these finite sessions and will constantly improve upon with each passing research project as the student progresses through their undergraduate, graduate and professional educational programs. There is an acknowledged loss that this method will allow little to no time to directly inform the student about the many online databases, however the belief that the skills and techniques, early acquired by the incoming student, is a better use of the limited time, as a handout outlining the available databases, describing what they do, is just as efficient as taking the time to present them, one after another, as live demonstrations. A major point of this philosophy is that skills and techniques are transferrable from one database to another and that most databases are the same except for their areas of academic concern.

Each of these theories have their advocates and their distractors, however many librarians do not deal with their bibliographic instruction duties at a meta-intellectual level and instead concentrate their work on the actual, classroom techniques to teach bibliographic instruction. Manuals are written on bibliographic instruction detailing to the smallest variable the steps necessary to teach a class, from beginning to end, including methods of assessment, and suggesting other workshops (Veldof and Grassian). Others have concentrated in the dilemma that the skills of teaching are not particularly a strong point in the numerous American Library Association-accredited schools offering the master’s degree which is considered the barest librarian’s credentials, and it is this dearth of actual, in class practice, that adds to any weakness of the teaching skills of the librarian. Still others in brief emphasize portions of the instructional method that they believe as essential and necessary, like making library instruction amusing and “fun, ” therefore memorable and educational (Sittler and Cook 2009) or adding a “literary style” such as metaphors (Nibley 1991; Avery 2008).

Both philosophies and the smattering of other teaching techniques suffer from the lack of a unifying theory of education. How people learn and why they learn is a major area of inquiry to the scholars of educational theory. His paper will present the learning theory of one scholar, Brian Cambourne, a language and literary scholar, who has written widely in the field of language acquisition and the conditions of learning, and will investigate the possible applications of language learning theory to bibliographic instruction.

**The Learning Philosophy of Brian Cambourne**

In an article published in the *Reading Teacher*, Brian Cambourne (1995) reassessed and summarized his last twenty years of literacy studies. He wrote about how, as a young teacher and researcher, his pedagogies were influenced by a learning theory that stressed the following: “Learning is a process of habit formation. Complex habits are best formed in they are broken down into smaller units. Habits are formed by associating a desired response with the appropriate stimulus. Strong associations begat strong habits. Habits are stronger if the stimulus and response are actively and continuously performed (i.e. “practice makes perfect”). Inappropriate responses are nascent bad habits and must be eliminated immediately before they become fixed. Learners are too immature to make decisions of their own learning so the process must be directed and controlled by the teacher” (p.183). Cambourne goes on to expound that such a pedagogical theory, based on habit formation, lead to an emphasis of repetitive drills and practice, where the student formed good habits, and through this automaticity, students were conditioned to become good students and good citizens.

This lock-step method of teaching seemed the most easily and consistent to apply for the teacher. Success and failure was directly tied into forming habits and the habits producing the necessary scores on tests. Yet through his experiences, Cambourne began realizing that there were inconsistencies in his observations of classroom learning. He wrote in the same article, “I was continually surprised and confused by students who didn’t seem able to learn the simplest concepts associated with reading, writing, spelling, or math, who nevertheless showed evidence of being able to learn and apply much more complex knowledge and skill in the everyday world” (p.182). This pedagogical philosophy was not complete.

Cambourne’s dilemma about the learning results of students lead him to seek a wider, more complex overview of education. His emphasis was in the field of everyday natural learning – how people learn when there is no overarching pedagogical theory powering an institutionalized educational process. His work primarily dealt with how people learned ones native language, and the results of his work concluded that there were certain conditions necessary for this learning. One could argue that learning a language as a child and learning how to seek information via the data seeking databases available to the modern day student is a stretch, however if the methods of learning anything are universal, then they can be applicable to any pedagogical situations in which humans are involved.

**Cambourne’s Eight Conditions of Learning**

In his 1995 article, Cambourne states that there are eight conditions necessary for individuals to learn. These eight conditions have changed over the years as the list was fine tuned to only these eight (Cambourne 1987; Cambourne 1988). First, immersion – the condition of being “saturated by, enveloped in, flooded by, steeped in, or constantly bathed in what is to be learned” (p.185). Second, demonstration – the condition that what is to be learned can be done and is being done. Third, engagement – the condition that the individual is expected to pay attention, to emulate, and perform what is learned through self-want. Fourth, expectations – the condition that others believe not only the individual can do what he/she has engaged with or in, but that the individual is obliged to perform as a member of a societal group with group needs and responsibilities. Fifth, responsibility – the condition that the individual will decide how to engage with others and what to ignore, with full knowledge of its consequences. Sixth, approximations – the condition that full-knowledge is not expected from the group to begin ones work, that mistakes are expected as part of the learning and living process, that there is no anxiety to be wrong. Seventh, employment – the condition that what is learned is not theoretically applicable when the conditions arise but will actually used on a day-to-day basis and the individual will be given the opportunity to use the skills. Eighth, response – the condition that the individual will receive feedback from the group, either praise or criticism, from using the skill. We take each of these conditions in turn and discuss their implications using either of the two library bibliographic instruction philosophies : the “critical mass” or “skills-oriented.”

Immersion. Brian Cambourne states that “from the moment of birth, young language learners are immersed in the medium they are expected to learn” (p.185). One can easily extend this reasoning to stipulate that for a student to perform in school and later in the community-at-large, the ability to know how to find information, where to find it, to value it, to make decisions and perform actions based on those decisions and to available the consequences of those actions. The student is an information seeker and is constantly immersed in tapping out information on a keypad. Learning about the existence of new databases and how to search them is simply a way of life. Both philosophies teach the aspects of this condition. The critical mass philosophy emphasizes the “where to find” aspect and the skills-oriented philosophy emphasizes the “how to find and how to find it better” philosophy.

Demonstration. Of the two philosophies, the “skills-oriented” philosophy appears to be more directly involved with demonstration. Although the time is short, even a few minutes with each student, looking over their shoulders, commenting on the search terms they are using, suggesting alternative search terms, limiting their searches by date or journal, will have a positive effect on the student’s research and will have a marked effect on the student to believe that even this early in their research, using a database they have never dealt with before, can bring about positive results and further embolden the student to try different methods and techniques to further improve their retrieval results. The “critical mass” philosophy limits the demonstration to the instructor and the projection screen as the active show and reduces the students to only viewers in this process. This can be ameliorated by giving the students an opportunity to do their own searching after the demonstration, however the time will be limited to only a few minutes, allowing only a few attempts for the student to perform searches with little time for self-reflection and self-correction and allowing very little time for the librarian to consult with each student, if at all.

Engagement. This condition is often confused with keeping the attention of the student for the forty-five minutes as if this is a showy performance to entertain as well as to elucidate. According to Cambourne, the conditions of immersion and demonstration are necessary but not sufficient conditions for learning. The condition of engagement includes active participation by the student, immersed in the session and in the demonstrations of information gathering given by the librarian. Of the eight conditions of Cambourne state, engagement is one of the most important and will be discussed later in this paper in its own section.

Expectations. Expectations is inwardly-directed from one’s community members. This condition has little direct affect on the learning behavior of the student. Most students in these first year classes do not know each other and only consider themselves as part of a university or college community, and except for the “expectations” to succeed from their parents and relatives, there is little peer-to-peer pressure to learn how to do good research. Brian Camboune states that not only are “expectations … essentially messages that significant others communicate to learners. They are also subtle and powerful coercers of behavior” (p.185). Thus, expectations are inwardly incorporated by the student prior to the sessions and cannot be developed immediately during the session. Whatever coercive power expectations have on the student, it must be brought by the student into the session before any teaching can be done.

Responsibility. The condition of responsibility empowers the student to decide whether to learn or not based on whatever reasons they personally choose. One could extend this reasoning that the student is knowledgeable of the consequences of not learning and takes responsibility, and accepts the punishment, of the consequences. This is rarely the case.

Approximation. This condition is based on the belief that one does not have to become all-knowledgeable before performing the task. Active practice and tried-and-error is essential in the field of information gathering as one learns through constant performance, getting more experienced and knowledgeable about not only the techniques of data gathering but also the resources (i.e. electronic databases, paper indexes, etc.) available to the student.

Of the two philosophies, the skill-oriented philosophy is closely tied to this condition. The one-to-one mentoring of the student in a class working on assignment is a good way to begin helping the student form and develop strategies of searching. Early mistakes of the student and misunderstandings that student may have in constructing a search can immediately be corrected, and the correction by the librarian can be reinforced through verbal praise. Whether the librarian can perform a one-to-one session with all the students of an introductory class is problematic, yet the librarian assuredly can affect a number of those in attendance. The critical mass philosophy can tangentially touch this condition only if the class is allowed time to test out or “play” with the databases for themselves during the session. How much actual or valued results can be retrieved in such as short, “first” time is also debatable. There is little-to-no time for a one-to-one mentoring of any consequence that will leave time to correct errors and improve a student’s first attempts at information retrieval. Usually the only connection between the lecturing librarian and the students are short questions shouted out from the classroom.

Employment. The condition of employment cannot take place in the rapid bibliographic session. Employment concerns the opportunities given the student for maturing their skills after they have been introduced to them in actual situations, and even a well-conducted session cannot offer the proper environment for employment as there is not enough time for the information about resources, the brief overview of developing search strategies, and the little actual searching to mature. Any employment can be facilitated if there is a followup session with the class or, in many cases, the librarian is asked after the session, after a significant time has elapsed for the student to formulate questions, by a student and a one-on-one session is held.

Response. This condition speaks to the responses the learners of information receive and obtain from an interaction with their environment. This is directly tied to the knowledge and skills obtained in bibliographic instruction sessions applied once the student is out of the session and methodically and directly applies what is learned to their daily tasks. The respondees are the instructors who grades their assignments and in general, the population at large, who counts on the skills and techniques of the student to perform as members of the general public. This eighth condition does not impact upon the pedagogical value of either philosophy, except in the broadest way if the student can prepare oneself for a future necessity.

**Evaluation**

Application of the Brian Cambourne’s conditions of learning to both philosophies of bibliographic instruction has been a hit-or-miss proposition. An overview of the eight conditions reveals that each philosophy meets some of the conditions, even if only in a tangential way. The critical mass philosophy is involved with the conditions of immersion and the first two principles necessary for engagement. The skills-oriented philosophy is involved with the conditions of immersion, demonstration, the first two principles of engagement, and responsibility. However, neither philosophy directly meets all the eight conditions, and although the skills-oriented philosophy meets more of the eight than the critical mass philosophy, it does not necessarily mean that it is the preferred philosophy. One can successfully argue that each philosophy meets each condition as a matter of degrees and not one hundred percent. Also, one cannot dismiss both philosophies as failures for not meeting all eight conditions. One can argue that the situations for rapid bibliographic instruction may not be conducive to such an all-encompassing theory of learning such as Brian Cambourne is suggesting for literacy learning.

Yet throughout this examination, certain themes are being mentioned and others excluded. There is little exposition about the teaching methods used by the instructor. Even at a meta-level of analysis, a discussion of techniques can be mentioned or at least alluded to, however in the eight conditions, this is missing. Perhaps one could argue that the purpose of Cambourne’s work is not to go into the details of pedagogical tasks, or what tools the teacher uses on a day-to-day basis. Looking over the eight conditions, it becomes apparent that the emphasis is not on the teaching methods used by the instructor but on the mindset of the student as they enter the bibliographic instruction session.

**The Four Principles of the Condition of Engagement**

All eight conditions revolve around either the student or the educational environment, none about the method of teaching used by the instructor. The conditions further conclude that the student learns best when they have a reason to learn and that this brief session will give them the opportunities of find ways to fulfill their desires, wants, and needs, especially as consumers of information who wish or need to do good work. Simple stated, students will learn how to search from these rapid BI sessions when they themselves decide the session have immediate value, and not if the sessions are either “critical mass”-based or “skills-oriented” based. The key is Cambourne’s fourth condition – Engagement. He enthusiastically states, “engagement was [sic] the key. It didn’t matter how much immersion in text and language we provided; it didn’t matter how riveting, compelling, exciting, or motivating our demonstrations were ; if students didn’t engaged … no learning could occur” (p.186).

He proposes four “Principles of Engagement.” One, learners must believe they are capable of ultimately learning or doing what is being demonstrated. Two, learners must believe that what they are being taught has potential value, purpose and use for them personally. Three, learners must be free from anxiety. Four, learners are taught by someone they like, respect, admire, trust, and would like to emulate.

The four principles of engagement are available during any bibliographic instruction session and each in turn will determine the success of the session.

The first principle of engagement is built-in to the student from years of experience searching the internet. Most, if not all, of students have a knowledge of how to search electronically and rarely doubt their ability to retrieve something. Librarians often will give the student in class opportunities to search a database as part of the session, however this highly abbreviated session does not give the student amply opportunity to investigate the power and scope of the database or improve their nascent abilities. Both philosophies do give, at least, a brief episode of actual searching. Yet it is doubtful that this limited opportunity for the student to type in a search term and retrieve a “hit” list of results will increase any doubt in the student’s mind of their general searching abilities, even if they initially retrieve nothing of value. They will leave the session confident that they will retrieve items of value once they begin again.

The second principle of engagement speaks well to many pedagogical axioms. There will little doubt that students learn best when they have an intrinsic want or need that can be solved through bibliographic sessions. This principle is best met not by the librarian attempting to convince the student to “listen and learn” during the short, one-shot session, but by having the instructor of the course mandate that the student have a specific assignment before they are brought into the library and that the their task and duties fulfilling the assignment begins with the information and instruction they will receive during the session. Both the critical mass philosophy and the skill-oriented philosophy have no provisions to actively affect this principle, except to insist that the students bring an assignment with them. The instructor will decide if the session will be inhabited with students seeking resources to fulfill their actual and immediate need or they will be just “tourists.”

The third principle of engagement is often difficult to determine by the librarian as anxiety can be caused by many forms, including many not generated by the librarian, the session, and the school. Students will bring their anxieties derived from other dilemmas and troubles into the session, and neither the librarian nor the class instructor can assuage them. However the librarian is aware of anxiety-producing activities in the classroom. The librarian, with full knowledge that a large amount of information, much of it non-intuitive (i.e. which databases are best for a particular subject, where are they located among the myriad of links on a library’s website, etc.), can ameliorate the anxiety by giving out handouts, slowing down the explanations, focusing on topics chosen by the students, pausing to answer questions. Whatever techniques and ploys the librarian uses, smiling, joking, making it “fun,” the librarian can greatly reduce the class’s anxiety by focusing on the value of the information being relayed, and how the information will make their difficult research topics, which may seem like a tangle of shadows, easier to handle, bound, and restrict. Even allowing brief, ad hoc discussions among the students as the librarian is talking is a method of student-to-student teaching rather than class disruption. Students will often help each other, such as telling a neighboring seated student who is lost in the lecture where to rejoin it.

The fourth principle of engagement is the most difficult to institute because of the short duration of contact between the librarian and the students. Initial impressions between students and librarian could be positive depending on how the goals of the short class are introduced, however there is little to be gained by emphasizing this principle. An instructor, librarian, or other, can gain respect, admiration, and trust from the student only after a long period of direct, positive interaction. The shortness of a rapid bibliographic instruction session usually precludes the possibility of a sustained positive relationship between student and the librarian, unless there is followup after the session is over.

Cambourne’s four principles of engagement do not seem to meet well the criteria of rapid bibliographic instruction, similar to his eight conditions. Yet it is his second principle of engagement which speaks most importantly to bibliographic instruction librarians – “Learners are more likely to engage deeply with demonstrations if they believe that learning whatever is being demonstrated has some potential value, purpose, and use for them” (p.186). There are many learning theories that emphasize that students will pay attention and learn if they have a vested reason to listen and learn.

The different is between the student as tourist and the student as scholar. For the student as tourist, the librarian speaks about different databases and the projected images of how the databases are manipulated are projected on the screen before the entire class. There is little student interest if there is no entertainment value and no reason to pay any attention. The student as scholar has an actual interest in not only playing attention but learning in the very short time allowed what can not only meet but fulfill his/her academic needs. The student as tourist is a student with no real need to be listening and everything washes over them. The student as scholar comes into the session prepared by the professor or class instructor with a topic or problem or dilemma and has been told that the librarian and this short session can help begin their work toward solutions.

Such a revelation may be troubling for the librarian. As teachers, they may still believe that their philosophies or methods of teaching have a direct impact on the student. It is difficult to accept that much of the success of learning depends on the mindset of the student – his or her immediate reasons, thus motivations to pay attention and learn, and the instructor of the class who prepares his/her students with actual work that can only be accomplished if they are attentive in a bibliographic instruction class. However librarians cannot depend on the will of the class instructor to prepare his/her students. Too often, librarians have been asked to act a “tour guides” – to introduce the library’s information resources to a class of students who have no interest or reason of being in a library. This is a loose-loose proposition: the librarian has no purpose in the student’s academic lives and the student has no reason to listen to a librarian that cannot solve problems or assignments that do not exist.

If the librarian can have any effect on the students who are forced by their instructors to attend bibliographic instruction sessions, the librarians must insist that they become part of the active process of educating the student. The class instructor must be told through direct communication from the librarian that the students must bring in to the session the “reasons” for attending : topics chosen with specific directions to write or investigate them. The most successful sessions are those when the instructor includes in the assignment, stipulations such as a minimum number of resources (i.e. books, articles, websites, etc.) allowed in the assignment. The instructor creates the demand and the librarian offers the supply.

**Conclusions**

The application of one theory of learning in an established field to another is often a hit-or-miss affair. In Brian Cambourne’s case, he is an expert in how children learn how to read and speak, and he has studied the way children, and adults, learn over a long period of time with instructors who have a constant, direct impact and influence upon them. Yet the exercise of applying literary learning theory to rapid bibliographic instruction is not a nonsensical attempt or a time-wasting activity because commonalities are revealed in the process. The majority of Brian Cambourne’s conditions of learning are based on longer periods of activities, but we have seen by this overlaying of one theory or over another, that rapid bibliographic instruction librarians can gain new insights.

The librarian who wonders whether the “critical mass” philosophy or the “skills-oriented” philosophy is the more effective philosophy can be reassured that whichever philosophy and methods based on their philosophy they decide to use in their rapid bibliographic instruction sessions will ultimately have the same effect on the student. Which philosophy the individual librarian chooses most likely is more dependent on their past experiences, as academic, public, special librarians, and their ease and comfort, than a strict, rationally-defined, logically-tested philosophy. According to Cambourne’s theory of learning, the power of each philosophy to teach is superseded by the mindset of the student. It is the perceived wants and needs of the student who sits in the classroom that defines the value of the session. Therefore, the information-needy student who knows that the librarian can solve their problems and dilemmas during the rapid bibliographic instruction session is the major determinant of a successful session and not which philosophy is embraced by the teaching librarian.

**References**

Association of College and Research Libraries and the American Library Association. Instruction Section. (May 10, 2011). Retrieved May 10, 2001 from [www.ala.org/ala/mgrps/divs/acrl/about/sections/is/index.cfm](http://www.ala.org/ala/mgrps/divs/acrl/about/sections/is/index.cfm).

Association of College and Research Libraries and the American Library Association. Instruction Section. Insturction Section Chronology. (2011). Retreived May 10, 2001 from [www.ala.org/ala/mgrps/divs/acrl/about/sections/is/about/chronology.cfm](http://www.ala.org/ala/mgrps/divs/acrl/about/sections/is/about/chronology.cfm).

Avery, S. & and Hahn, J. (2008). In D. Cook & R. Sittler (Eds.), *Practical Pedagogy for Library Instructors: 17 Innovative Strategies to Improve Student Learning*. (pp. 61-68). Chicago : Association of College and Research Libraries.

Cambourne, B. (1995). Toward an Educationally Relevant Theory of Literacy Learning : Twenty Years of Inquiry. *The Reading Teacher,* 49(3), 182-190.

Cambourne, B. & Turbill, J. (1987). *Coping With Chaos*. Rozelle, New South Wales, Australia : Primary English Teaching Association.

Cambourne, B. (1988). *The Whole Story : Natural Learning and the Acquisition of Literacy in the Classroom*. Auckland, New Zealand : Ashton Scholastic.

Crawford, G. A. & Feldt, J. (2007). An Analysis of the Literature on Instruction in Academic Libraries. *Reference & User Services Quarterly*, 46(3), 77-88.

Cook, D. (2008) Why Should Librarians Care About Pedagogy? In Cook, D. & Sittler, R. (Eds.), *Practical Pedagogy for Library Instructors: 17 Innovative Strategies to Improve Student Learning*. (pp. 1-19). Chicago : Association of College and Research Libraries.

Grassian, E. (1993). Module 1 : The One-Shot Lecture. P.1-11. In *Learning to Teach : Workshops on Instruction : A Project of the Learning to Teach Task Force*. Chicago : Bibliographic Section, Association of College and Research Libraries and the American Library Association.

Johnson, J. (1986). Application of learning theory to bibliographic instruction : an annotated bibliography. *Research Strategies*, 4(3), 138-141.

Mellon, C. A. & Pagles, K.E. (1987). Bibliographic Instruction and Learning Theory. In Mellon, C.A. (Ed.), *Bibliographic Instruction : The Second Generation* (pp.134-142). Littleton, Colorado : Libraries Unlimited, Inc.

Nibley, E. (1991 spring). The Use of Metaphor in Bibliographic Instruction. *RQ*, 30, 343-347.

Piette, M. I. (1995). Library Instruction : Principles, Theories, Connections, and Challenges. *The Reference Librarian*, 51/52, 77-88.

Sittler, R. L. & Cook, D. (Eds.). (2009). *The Library Instruction Cookbook*. Chicago : Association of College and Research Libraries.

Veldof, J. (2006). *Creating the One-shot Library Workshop : A step-by-step guide*. Chicago : American Library Association.