

LET THE GAMES BEGIN! CHANGING OUR INSTRUCTION TO REACH MILLENNIALS!

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The traditional way academic librarians teach information concepts to students no longer works. To reach the undergraduate student of today, who is competent and excited about technology, librarians must explore new approaches to instruction. This includes being open and flexible to ideas and methods that may at first seem foreign and uncomfortable. Technology and the excitement it holds for undergraduates provides a perfect vehicle for librarians to take advantage of and to adapt for teaching information concepts and skills.

Today's incoming college freshmen are part of the millennial generation, students born between 1980 and 2000. As with Baby Boomers and Generation Xers before them, they have certain characteristics and expectations that set them apart from previous generations. Sometimes called the "internet generation", these students do not remember a time without technology so they are both comfortable with and knowledgeable about it. As a whole they prefer immediate and quick responses thus the preference for instant messaging. They are very social and collaborative in nature as seen by their preference for working in groups.

As Millennials were growing up their parents were involved in their lives to the point of organizing and micro-managing their activities in a supervised and structured environment. As a result, Millennials prefer structure and organization. Their parents often intercede on their behalf to ensure they were being treated equally and were in a safe environment. Millennials were consistently catered to and told how special they were. Their parents invested in their lives stressing self-esteem and confidence, creating in them a strong sense of self-worth that is translated into a "can do" attitude. Learning is non-linear for Millennials. The typical Millennial may do homework while listening to music and watching television or talking with friends on the computer. They gather information from multiple sources often learning through experiential activities

rather than through textbook reading. Above all else they prefer learning that is engaging, exciting and entertaining.

MILLENNIALS COME TO ASU AT THE WEST CAMPUS

Arizona State University (ASU) at the West campus is a community-focused metropolitan campus located in the west area of metropolitan Phoenix. The twenty-two year old campus, founded in 1984 as an upper-division campus, is one of four campuses of ASU. During the early years of the campus junior, senior and selected master's degree programs were offered.

In fall 2001, the initial freshmen class of 269 students was admitted. At the same time the University charged a campus outcomes assessment team (COAT) with focusing on campus-wide assessment efforts. This team, including a librarian, created the campus-wide *Categories of Learning Outcomes*, which included information and technology competencies, to assist with guiding and assessing instruction. These two events offered librarians a unique opportunity to further their agenda of integrating information competencies across the curriculum.

Using the West campus Library's *Information Competencies* developed in the early 1990s as the foundation, the Library's Lower Division Implementation Team in 2001 defined and developed a list of information competencies for first year students. This list, now known as *The Information Skills Outcomes for First Year Students*, formed the framework for a library curriculum emphasizing three levels of competency in the areas of library services, research processes, online catalog, database search techniques, evaluation, attribution and citation.

Learning Communities were selected by the campus as a mechanism for creating a supportive learning environment for all freshmen during their first semester on campus. Librarians collaborated with faculty in planning these and were guaranteed access to a minimum of two instructional sessions in each learning

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community. After the initial year, incoming freshmen were not required to participate in a learning community. As a result of this change, librarians no longer reached a majority of first year students although they continued to have guaranteed access to learning communities. The freshmen English composition program opened another point of access to students. This provided librarians with the opportunity to build a sequenced approach of instruction applied over several semesters.

To accommodate the changes in library instruction for freshmen, the position of Coordinator of Lower Division Instruction was created in November 2003. In addition, a librarian hired on a term contract in 2004 was assigned to work with the lower division program in developing and delivering instruction. To help on a short-term basis a temporary librarian was asked to assist as needed and an intern was hired for a semester. The Digital Design and Delivery Librarian provided technical support to the team in the development of online instructional tools. In 2005 two library staff members working on their Master's degrees in library and information science joined the team. The Lower Division Instruction Team (LoDi) is charged with the development and delivery of instruction to English 101, English 102, WAC 101 and Learning Community students.

As part of creating a new LoDi team, members revisited *The Information Skills Outcomes* to ensure full understanding of their meaning and to confirm skills and outcomes were assigned appropriately to courses in sequence. This curriculum guides the development of instructional content specifying the tasks, skills, and processes that first year students must master in order to become information literate.

INITIAL INSTRUCTION METHODS

Initially, instruction for the Learning Communities consisted of a virtual and real library tour exercise. This performance-based exercise was used to introduce students to library services, the Library's online catalog, differences between types of sources and collections, and how to read, understand, and use citations to retrieve information. This assignment was labor intensive for both students and librarians; it also did not engage the students.

Once Learning Communities were no longer a requirement for incoming freshmen, this exercise was transferred to WAC 101 and English 101 classes and new instruction was developed for Learning Communities.

CHANGING INSTRUCTION WITH MILLENNIALS IN MIND

From an initial class of 269 students in 2001, the number of freshmen climbed to over 400 in fall 2005 and the campus goal for fall 2006 is 600-800 first year students. With the numbers of first-year students growing at a greater rate than library staff, reaching students to teach library skills and concepts in a meaningful way is increasingly more difficult.

In 2004 the LoDi Team began the process of changing instruction. After researching the most effective ways to deliver instruction to Millennials, online learning objects and educational gaming were determined to be viable options. Learning objects are interactive, experiential, and break content into small, easily absorbed pieces. Game-based learning offers students a non-threatening, fun and interactive mechanism that incorporates activities where learning about detailed and complex processes is engaging and meets students where they are.

Writing Across the Curriculum (WAC) 101 is designed to build writing skills of students who are at risk. Once students complete this pass/fail class, they enroll in English 101. In the first year of the Library's lower division instruction program, these students were given tour exercise, as were students in English 101 classes. Issues with this exercise and the problems inherent in duplicating instruction were recognized but the time to design new instruction for multiple courses while integrating a librarian, new to the profession and the campus, into the program was insufficient.

One year later the team began to tackle the problem of designing engaging instructional activities or games that differentiate between the skills and concepts taught in WAC 101 and English 101. A race through the library game based loosely on the television program, *The Amazing Race*, was created. Students receive clues by locating information throughout the "race" and reporting it to appropriate library staff. In addition to receiving one clue at a time they also receive puzzle pieces of the library floor plan to put together at the end of the game. Campus bookstore coupons were used as prizes.

While student feedback indicated that this activity was fun, there were some problems centering on service desk staff properly interacting with student players and providing the correct clues.

The three most important things students reported learning from this activity were where books are located, how to search the online catalog for media, and how to find a book on the shelf.

USE OF LEARNING OBJECTS FOR INSTRUCTION

WebQuests

As the former education librarian for the campus, the lower division coordinator was familiar with WebQuests, a structured inquiry-based approach to locating, evaluating, synthesizing and using information from the internet created originally by Bernie Dodge and Tom March in 1995. She initiated a project to create a WebQuest as a learning object to introduce students in learning communities to searching, retrieving, and evaluating sources from both the Internet and a general subscription database. These WebQuests can be easily modified and updated by librarians to focus on the subject content of the individual learning community. Google is a familiar tool but most students are unaware of the advanced searching and limit techniques that allow them to focus a search. In a guided approach, students were provided with a

topic and specific search terms and limits to enter in Google. After performing both basic and advanced Google searches, students compared and contrasted the results for use in an academic environment. This same approach was used with a subscription database, *Academic Search Premier*. Finally, results of the Google and database searches were compared and contrasted for relevance to an academic assignment. In each section students were directed to identify the basic components of a citation. Student feedback to this instructional approach has been positive overall. Many comments received indicate a better understanding of the differences between the Internet and subscription databases.

The Research Process: Defining Research Needs

English 102 students are typically assigned a research paper. They are expected to create a research plan, select and define a topic, search databases, select and retrieve sources, synthesize information and cite sources.

Librarians negotiated two instructional sessions in these classes with the Composition Coordinator; however, with so many concepts to cover and a range of skill levels among the students it was difficult to sufficiently teach the basics of selecting, focusing and searching a topic. To assist students, librarians reviewed their topics and search strategies between the instructional sessions but it was difficult to find time to review and comment on these in a short time.

After a semester, a learning object that would be part online tutorial, part online worksheet was created. Students entered their topic information including keywords and a search strategy and then emailed the information to a librarian for review prior to the first library instruction session. This learning object, *The Research Process: Defining Research Needs* worksheet, introduced students to the research process as part of an information-seeking model. This provided more in-class time for librarians to address and teach additional skills including synthesizing information.

Student feedback indicated that learning to search and navigate databases was the most useful part of the instruction they received. They overwhelmingly indicated that what they learned would be useful in doing research in their other courses.

THE TOUR EXERCISE BECOMES A GAME

Instruction for students in English 101 originally consisted of the tour exercise that had been created for the Learning Communities and used in WAC101. Creation of an online version of the tour that could be administered and automatically graded online surfaced every semester. During fall 2004 the idea of investigating virtual reality as a delivery mechanism for teaching library skills began to gel. As educational gaming had previously been identified as a method for reaching Millennials, the Game Project came into being.

The Game Project was naively targeted for completion in

August 2005, but after exploring online games, the team found that the project was too big to complete by then. Instead the decision was made to design and pilot a traditional board game that could serve as a prototype for a computer-based game. The project plan involved evaluation and assessment of the board game's potential as a computer-based game.

The need to learn more about games in general was identified as a necessary step. Several board games such as *Clue* and *Trivial Pursuit* were reviewed for game mechanics. Several different approaches were looked at including scenarios or "problems" that generated urgency in solving a dilemma and involved identifying, locating and evaluating information as an aspect of solving the problem. A lot was learned about games through this process including just how different board games and computer-based games are.

The board game created by the LoDi Team involved students in interactive learning, incorporated chance, penalties and rewards and allowed non-librarians to deliver instruction. It is scalable because it can be administered by anyone; is accurate because it was created by librarians; is instructive because it incorporates information about library services and types of resources; and is engaging because it is a team-based game.

Student feedback about the board game was enthusiastic. Students indicated they had fun while learning about something they deemed as rather dry and boring. Using a game appears to be an innovative and viable way to teach students about the information environment.

The online game will introduce and focus on many of the same concepts as the board game but will take place in an action-oriented online environment. Students will be engaged in a discovery learning activity that incorporates assessment of learning and provides players with immediate, automatic feedback of their actions. The targeted completion date for the Game Project is now fall 2006.

The use of a variety of interactive learning objects and games in the first year library instruction program engages Millennial students by appealing to their preferred learning style. They provide for systematic and sustainable delivery mechanisms, contribute to the development of information proficient students, strengthen the library's role in the education of students and reduce the remedial work required by liaison librarians in upper division classes.

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