Everyone Likes a Challenge

Getting Students’ Attention with Interactive Games and Authentic Assignments

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Introduction

Academic librarians spend many hours developing accurate, detailed lectures, and designing fact-filled Prezi and PowerPoint presentations. In spite of this, they often face classes full of students who seem less than intrigued by demonstrations of the unique navigation of library databases or the mysteries of Boolean operators. What is going on?

Christy Price, a psychology professor at Dalton State College and recipient of a number of awards for teaching excellence, has been studying college students and their ideal learning environments for over a decade. Her advice for connecting with the current generation of college students is to include group work, fun activities, multimedia formats, real examples, and most of all, activities which are “interactive” and “participatory” (Price, 2009, p. 3). In Cybrarian Extraordinaire, Smith (2011) goes further and states that “interaction, group activities, and levity” are “essential pedagogical practices” (p. 62).
Price and Smith are not alone in advocating a shift in instruction practices towards interactive, entertaining, and authentic or problem-based instruction, nor is this advocacy new. Writers began pointing out the effectiveness of active learning techniques long before the present generation of students made it to college. Lorenzen (2001) cites a library instructor from 1886 who questioned the effectiveness of the lecture method for teaching library research skills. Fosmire and Macklin (2002) note that medical schools were using active methods as early as the 1960s. By the 1980s, national reports on effective instruction were urging college professors to transform their classes so students would move “from passive listeners to active learners” (Bonwell & Eison, 1991, p. 1).

Library literature is full of authors advocating active, authentic instruction. In 1992, Drueke applauded the effectiveness of active instruction and provided direction on including it in library sessions. Krajewski and Piroli (2002) integrated active learning strategies into their first-year experience program with good results. Smith (2007) employed a number of activities from crosswords puzzles to tic-tac-toe games to liven up library instruction in a chemistry class. A recent study by Detlor, Booker, Serenko, and Julien (2012) suggests that active learning strategies continue to be effective with college students.

Why are active learning techniques particularly important for information literacy instruction? Lorenzen (2001) argues that lectures have their value, but also their limitations. According to this author, lectures, at their best, can be effective vehicles for promoting surface learning, which is characterized by memorization of information. He continues that they may enable students to do well in assessment that requires only the recollection of facts or definitions, but they are likely to be less successful in promoting deep learning which involves critically analyzing new ideas, connecting them to pre-existing knowledge, and developing understanding rather than the simple retention of facts. Therefore, Lorenzen concludes, for librarians who are hoping to change students’ habits of finding, evaluating, and using information, lectures may not be the best tool in their teaching toolboxes.

So how can librarians move toward more active instruction? A simple way is to add some games and activities that require learners to actively participate in instruction sessions and authentic assignments that allow students to apply what they learn to real-life situations. Instructors who adopt them quickly discover for themselves that games and active, authentic assignments not only improve educational outcomes, but also make the teaching and learning process more meaningful and enjoyable for both students and instructors (McDevitt, 2011, p. xiii). They will also find that by doing so, they are not blazing a trail but joining with progressive instructors from other disciplines who have long believed in and practiced these methods (Detlor, Booker, Serenko, & Julien, 2012; Fosmire, 2003).

This article was designed to assist instructors in adding games, activities, and authentic assignments, as well as other simple components to their teaching. It is also for those who already use such tools and are looking for some new ideas. It will provide examples of icebreakers (such as library bingo), orientation games (such as library scavenger hunts and discovery tours), and authentic assignments (such as writing library newsletter articles, designing an information literacy game, and other practical activities). All have been used successfully at Indiana University of Pennsylvania (IUP) Libraries and others across the county.

### Icebreakers

Most instructors have experienced presenting to a classroom of students who are yawning, texting, or otherwise distracted. Lecture-based instruction is likely to include polling or posing questions to students to test their understanding and keep their attention. In classes filled with students with dazed and bored looks on their faces, getting answers to questions can be arduous. Chlup and Collins (2010) suggest that icebreakers are an effective way to get students comfortable, engaged, and ready to join in.
At IUP, instructors use “Getting to Know You Bingo” as an icebreaker to begin semester-long classes in a number of subject areas. This year, I adapted it for our semester-long, one-credit class. It takes about ten to fifteen minutes to play. The game is a great way to begin classes because it helps students get to know each other and become more comfortable talking in the classroom and thus more likely to contribute to discussions. In addition, for instructors it provides formative assessment data, which can be used to adapt the class to students’ level of prior knowledge and specific interests.

To prepare for the game, we create a blank bingo game board with four or five rows across and prepare questions like the samples that follow (see Table 1). We provided the questions on a separate piece of paper, but the questions could just as easily be written on the chalkboard, a smart board, shown on PowerPoint slides, or simply read by the instructor. Students then answer the questions on the game board spaces with enough information that the question and the answer are both clear on their boards (see Appendix A).

Table 1
Sample questions used for “Getting to Know You Bingo”

| 1. | What is your major? |
| 2. | Reasons why you took this class (such as, you love the library, you wanted to learn how to do research, your friend said it was easy, your friend said it was fun, you need one credit to graduate, etc.) |
| 3. | How do you find things out? How do you access news? The newspaper, television, Facebook, Twitter? |
| 4. | You have/have not used the Learning Management System (Moodle, D2L) before. |
| 5. | You do/do not like to take tests. |
| 6. | In what year of college are you? First Year, Sophomore, Junior, Senior |
| 7. | What do you want to do when you graduate? |
| 8. | Do you feel you understand about copyright? |
| 9. | Do you feel comfortable with IUP’s Academic Integrity Policy? |
| 10. | Do you use Facebook to find information? |
| 11. | Do you use YouTube to find information? |
| 12. | Do you understand the difference between a scholarly and popular periodical? |
| 13. | Do you know how to do citations in APA style? |
| 14. | Do you know how to access library databases from off-campus? |
| 15. | Do you like to read print/electronic books or both? |
| 16. | How do you begin looking for information for your research papers? |
| 17. | Other questions relating to their library or information literacy skills. |
When they have completed their boards, students are asked to find other students who have similar answers. When matching answers are found, they are directed to ask that person to put their initials in that space. When players get four (or five, depending upon the size of the board) in a row, they are instructed to yell “Bingo,” and the game is over. We give small prizes to the winners (such as Post-It notes and pens provided by database vendors). Students enjoy getting prizes but really enjoy winning and playing the game.

When the game is completed, we ask debriefing questions related to the students’ answers, attempting to relate them to the subject matter that would be covered in the class. We try to help the students see from the beginning the real-life applications of what will be discussed that semester. We then collect and analyze the game boards, which we use to inform our future instructional sessions. Other versions of bingo games can also be used as icebreakers, re-energizers, or as review games. Examples of other bingo games can be found in Sittler and Cook’s Library Instruction Cookbook (2009), including one by Katherine O’Clair (p. 24).

There are endless possibilities for icebreaking activities that engage students from the beginning and set the stage for deep learning. Conger (2001) describes a wonderful fishbone icebreaker that can be used to begin one-shot bibliographic instruction sessions. It is just one of the many articles and book sections that librarians have written that describe icebreakers used successfully to begin library instruction sessions. Walsh and Inala’s Active Learning Techniques for Librarians (2010) and McDevitt’s Let the Games Begin (2011) include entire sections on icebreakers that can be used to start library instruction sessions off on the right foot.

### Active Orientations

Standard library tours are more active than lectures but can leave librarians hoarse and students bored. Tours are increasingly being replaced by more active, engaging, student-centered orientations that can boost both enjoyment and learning. More and more libraries are designing treasure hunts, mystery orientations and other games to introduce students to the library in engaging ways (Butler, Resnis, & Barth, 2007; Gallegos & Allgood, 2008; Gregory & Broussard, 2011).

### Simple Discovery/Presentation Orientation

At IUP Libraries, we have used a “library discovery/presentation” game with a variety of classes, from semester-long, credit-bearing classes to one-shot orientations for student employees of the residence halls. The game requires students to actively investigate library services, places, and resources and then to report their findings to the class. The whole game can be completed in a 50-minute class period, though a 75-minute period allows the class to visit more places and have more time for discussion and reflection. This game was adapted from “The Library’s Best Beach Ball Game” (McDevitt & Stillwell, 2011, p. 23-27).

For this game, we created a list of the most important library places, resources, and services. We then printed them on slips of paper with enough space in between topics to cut them apart. We then put the slips into an open container, although any method of assigning places, services, and resources could be used.

The game begins when we ask students to choose a library place, resource, or service either individually or as a team. They then investigate the place, resource, or service they chose and answer questions like “Where is it?”, “What do people do there?”, and “Why should students want to know about it?” Players are also told to introduce their fellow students to the topic choice and to try to convince them that what is being described is the best place, service, or resource in the library.

When the investigations are complete, the group tours the library, visiting the places, resources, and locations of services. Students then share what they had discovered with their fellow students. Librarian and course
instructors are on hand to offer more information or gently correct any misinformation that was presented. Students have done a great job of conveying what they need to know about library places, services, and resources, and why they need to know it.

When the presentations are complete, we gather the group in the classroom and ask them to nominate the best places, resources, or services and the classmates who described them. When nominations are closed, they vote on the winners. This part of the activity also provides feedback on what students like and dislike about the library, which we were able to use for future planning.

When using this activity with English classes, students have sometimes been asked to do extended research on their topics or to interview people as a part of their research and write their findings in the form of a short news story. The best of such essays have been included in our library newsletter, with the students' names and majors appearing on the articles.

Students reported that they learned from the session and even enjoyed this activity. Librarians and instructors learned more about their students as we watched the often very entertaining presentations, which also provided us with new insights into student preferences and library use habits.

Students had good things to say about the activity. In the fall of 2012, student comments in one-minute papers assigned after the sessions included the following: “I thought this activity was great. I liked the fact that we got to walk around and see everything” and that “it made it more interesting than just listening.” In the same vein, others said that they liked it because “we didn’t have to sit down and listen to the librarian talk the whole time.” Another reported that it kept him from getting “bored or tired.”

Mystery Scavenger Hunts

Many libraries offer large-scale mystery and scavenger hunts to replace or supplement traditional library orientations and instruction. These activities require students to visit specified parts of the library to gather clues and delve into library resources (Aulisio, 2013; Broussard, 2010; Harris & Rice, 2008; Marcus & Beck, 2003; Ward-Crixell, 2007). Marcus and Beck (2003) wrote about librarians at Queensborough Community College of the City University of New York who did a library mystery scavenger hunt with multicultural students. They found that students preferred the self-guided tour and did better on post-tour testing than those who did traditional orientations.

Such hunts are educational and entertaining but can require a good deal of staff time to create and to carry out. At IUP Libraries, we created a simplified version of the game that works well for us and might be of use to librarians who would like to try such hunts but feel they are too busy to carry out a complicated, labor-intensive event (See Appendix B).

To begin, we decided what we wished to emphasize about the library and designed the game with those objectives in mind. We decided to include the following points: the location of the service desks, how to find a book in the online catalog and on the shelf, and how to find a full-text journal article on a specific subject.

We then created a scenario that provided a reason for students to visit library places and use library resources. For example, the school mascot, the Crimson Hawk, needed assistance in finding some information. To collect answers, we created a Gmail account named after the Hawk to which the results could be e-mailed.

To play the game, we gave students a packet of worksheets and maps that described the scenarios and listed the places to be visited and the questions to be answered. Students were grouped so at least one member of each group had a phone with a camera. Students were required to visit the library’s help desks and obtain the initials of the people working there. They also had to look up a book and text themselves the call number. Then they had to find the book in the stacks, take a picture with their phone, and e-mail the photo to the mascot’s Gmail account. They
then consulted a library database and found a journal article on a specific subject and e-mailed the full text to the Crimson Hawk Gmail account. The faculty member and the librarian were there to assist students who ran into trouble. The first group to correctly complete the challenge received a prize.

Students had no difficulty completing the activity in 30 minutes, even without any prior introduction to the library. Due to the game’s success, we are planning to use a “Day at the Beach” variation for the boardwalk-themed, campus-wide “Welcome Weekend” in the fall.

Service Learning Authentic Assignments

Active orientations and games give students experience finding information in the library and may even help students discover real-life reasons why it is helpful to have information literacy skills. Even more meaningful to students are service learning assignments that challenge them to use information to tackle real-world problems and help real organizations.

Often credit-bearing information literacy classes require students to do interim or final projects that demonstrate their ability to find, evaluate, and use information, but do not appear to have practical applications. Students often dread the academic bibliography assignment and view it as busywork rather than an important skill-building exercise. One way to combat bibliography boredom is to follow the lead offered by Barry (2011), who included service learning and authentic assignments in her library classes.

In the fall of 2012, I taught a two-credit information literacy class with service learning assignments. In this class, students were asked to spend the semester doing a research project on a question provided by a non-profit organization in the community, complete a short annotated bibliography on that topic, and then do a final project based upon this research. Students had their choice of community partners to choose from.

Students who chose the library as their community partner were asked to do an information literacy board game as their project. For this project, students were asked to investigate the mistakes and good choices students make in college relating to information literacy skills and then build a board game that would demonstrate to players the impact of good and poor information literacy choices. The students created a game board and cards with scenarios involving college students who make good and bad information literacy choices. Each scenario carried points that allowed students to progress through the game or to lose ground.

Scenarios included:

1) Hannah’s older sister wrote a paper on World War II. Hannah didn’t want to write one so she changed the name and turned in her sister’s paper. Her teacher realized that the paper was not the sort of thing Hannah would write. Her teacher called Hannah into the office and confronted her. She gave Hannah an F in the course. Go back to the beginning of the game.

2) Julian asks a librarian how he can most efficiently and effectively find sources for his paper for his Criminal Justice class. Move ahead two spaces.

3) Jeff wants to use a quotation in his paper. He carefully copied down the quotation but forgot to write down where he found it. When he went to write his paper, he had to spend time looking for the source so he could cite it properly, loosing valuable time he could have spent working on something else. Move back one space.
Students enjoyed the activity. It required them to pay closer attention to the information literacy best practices presented in class and discovered in the library literature. They created a game that other students might enjoy playing as well. The option to do a game for the library will continue to be offered to students in connection with this and other service learning classes.

Other students in the class chose different community partners, including the local public library, the YMCA, a children’s grief counseling center, a shelter for homeless families with children, and the local domestic violence shelter. In each case, students created a 10-item annotated bibliography based upon a subject provided by the community partner. In addition, working with the community partner, students developed and completed a related project. Projects varied in substance and quality, but by the end of the class, students had prepared a variety of projects to assist the community partners, including brochures, business card-sized promotional items, posters, literature reviews, and lists of activities for meetings. All projects were presented to the community partners at the end of the semester.

Student reaction was mixed, but some really liked the project. One student wrote in her final reflection, “This is one of the best final assignments I have ever done. I say so because it is contributing to someone/something greater than just taking a test or writing a paper for a professor.” Another student wrote, “This final assignment was not the hardest” but “the most important one, because it is something that will stick with me throughout the rest of my life.” Now what can be better than that?

Embed a Library Video Contest in a Credit-Bearing Class

Academic libraries are generally nonprofit organizations that could benefit from effective marketing efforts but have little money or staff time to support such work. Helping to market the library is another authentic assignment that students and libraries have found mutually beneficial. Brock and Tabaei (2011) from Touro College in New York, worked with marketing students to help create awareness and usage of their college’s library. Duke, MacDonald, and Trimble (2009) of Wesleyan University’s Ames Library collaborated with a marketing class to promote their reference service. At IUP, our library video contest was adopted by a professor teaching a social media/public relations class and we found similar positive results.

For years, IUP had a traditional PowerPoint virtual tour that served as an introduction to our library. In 2008, we decided to hold a video contest to help celebrate National Library Week. Our hope was to harness students’ creativity and direct it to the effort to introduce our library to students in a more engaging way. We also hoped that as students designed their videos, they would learn more about what the library has to offer and why it is valuable to students. However, the contest was offered for two years without drawing many submissions.

Then the instructor of a social media/public relations class heard of the contest and decided to embed the assignment in her classes. As a part of her class, the instructor brought the students to the library for an orientation. We subsequently received many more submissions, and they were of very good quality. It is not surprising then that the submissions from students in her classes demonstrated a greater knowledge of what the library had to offer as compared to other submissions. It suggests that orientations followed by authentic assignments were effective in helping students learn about our library. The educational benefits did not stop there. Afterwards, we have used the videos to liven up library orientations of all kinds.
Conclusion

Academic librarians spend an increasing amount of time providing instruction and hope it will make a difference in the way students find, evaluate, and use information. But are they succeeding? Lecture and other professor-centered teaching methods are good vehicles for delivering information and promoting surface learning. Active learning that engages students and allows them to apply knowledge can reinforce such instruction. It can also lead to deep learning and more positive learning experiences for both students and librarians. Librarians at IUP and many others libraries across the nation have found that students like a challenge when it is a non-threatening educational game, an engaging activity, or an authentic assignment. From beginning-of-the-class (or -semester) icebreakers or orientations to end-of-class (or -semester) review games or authentic assignments, active learning draws student into active participation and deeper learning experiences. In the process, the librarians may find that they have learned something as well. In these games, everyone wins.

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Notes

1 See IUP Libraries’ spring newsletter for examples, such as the article by Sarah Hines on page 6 (http://www.iup.edu/workArea/linkit.aspx?LinkIdentifier=id&ItemID=141238).

2 Contest rules and judging rubric are available online (http://www.iup.edu/newsItem.aspx?id=138522&blogid=3059).

3 View some of the winning videos online (http://libraryguides.lib.iup.edu/libraryvideo).

References


Appendix A

Getting to Know You Library Bingo

<table>
<thead>
<tr>
<th>Moodle: Yes</th>
<th>D2L: No</th>
<th>Year: 3rd</th>
<th>APA Style: No</th>
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<td>Copyright Law: No</td>
<td>Live Off Campus</td>
<td>Philly</td>
</tr>
<tr>
<td>Network: E&amp;F books</td>
<td>LUP Integrity</td>
<td>Love</td>
<td>YouTube: LOVE</td>
</tr>
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<td>Major: CCLM</td>
<td>College: Human Sex</td>
<td>NU Journals</td>
<td>Facebook: HATE</td>
</tr>
</tbody>
</table>

Figure A1
Sample game board
Appendix B

Crimson Hawk Private Investigator Research Assignment

The Plot

The IUP Crimson Hawk, Norm, has fallen upon hard times (the economy’s downturn is impacting everyone, man and bird). He is trying out a new job as a private detective, but he is just a bird (and some might say has a bird brain), so he could use some help.

Your assignment, should you decide to accept it, is to learn a little about the library and use its reliable, authoritative sources to provide Norm with the information he needs to solve mysteries, to complete research projects, and help him keep his job as a PI.

Where to go for help

Go to each of the following Library Service desks, say “Hello” to the people working at the desk. Ask someone at each desk to put their initials after the name of the desk below:

- Circulation/Reserve Desk (1st Floor) _____________________
- Media Equipment Desk (1st Floor) ______________________
- Reference Desk (1st Floor) ____________________________
- Serials Desk (Ground Floor) __________________________

Now that you know the lay of the land, you are ready to find some information for Norm.
Finding Books

Norm is helping a high school student prepare for college (he will take any assignment). He would like to find a book that tells him something about what colleges look for in applicants. Will you help him find a book?

Go to any computer in the library and login. (A librarian and your instructor will be around the reference desk to help you, so you might want to find a computer near there.) All computers have generic login information near the keyboard.

Once you have successfully logged in:
1) Click on the Internet Explorer icon.
2) Go to the bottom of the IUP.edu homepage and click on Libraries.
3) From the Library webpage, go to the Find Information box and click on Online Catalog.
4) Choose Guided Search and type in “college admissions” and do a search.
5) Choose a book record that says Stapleton Library in the location field.
6) Write down the call number (or text it to yourself) and then use the handout in your packet to determine where your book is located.
7) Go to the stacks and find the book. If you have a cell phone, take a picture of the title page and email it to crimsonhawkpi@gmail.com. If you don’t have a cell phone take the book to the overhead scanner across from the circulation desk and scan the title page, copy it to a thumb drive (if you don’t have one you can borrow one for Media and Equipment), and take it to a computer and e-mail it to crimsonhawkpi@gmail.com. In the subject field of your e-mail be sure to put your name (or the name of your group) so the Hawk knows who sent it.

Finding Journal Articles

Now Norm has to find journal articles on the same topic. To do this, go back to the computers.

This time:
1) Go to the Library web page
2) Under Find Information, click on Articles and More.
3) From the list of databases, choose Academic Search Complete.
4) Type in “college admissions” and then check the box in front of “full text.”
5) Choose an interesting article from the list. Click on add to folder then go click on folder in the taskbar at the top of the page.
6) Click in select (top left) and then E-mail (right)
7) E-mail the article to crimsonhawkpi@gmail.com. Be sure to put your name (and the names of your other group members if you are in a group) in the subject line of the e-mail.

That is it. Great job.

Developed by Michele Corcoran, Laura Krulikowski, and Theresa McDevitt (Summer 2012).