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USING ICLICKERS IN LIBRARY INSTRUCTION TO IMPROVE STUDENT ENGAGEMENT

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Abstract

This informal and interactive session will give you a chance to use iClickers in a library instructional situation. Personal Response Systems are widely used for commercial applications, but Clemson University librarians are deploying iClickers, a proprietary PRS, in teaching and with the goal of improving student engagement. During the session, sample polling questions will be provided and an overview of the implementation process will be discussed. Participants will have a chance to assess how effective iClickers can be in improving student attentiveness and confirming understanding, as well as serving as ice breakers.

What Are iClickers & Why Use Them?

Personal response systems (PRS) for the classroom (sometimes known as classroom response systems) have been making inroads in college and university courses for some time. Instructors have found it particularly challenging to get student feedback and participation in large lecture environments. This has particularly been true in the more traditional “sage on the stage” type classroom setting where clickers have been useful in identifying student knowledge gaps or misconceptions when students respond to question polls using their clickers.

Clemson University has been using a proprietary PRS since about 2006 in large freshmen-level science and engineering courses like Biology, Chemistry and Physics, but also in some freshmen Nursing sections. The iClickers platform is officially supported by the Clemson Computing and Information Technology (CCIT) division and training is widely available to all faculty, as well as the requisite hardware and accompanying software.

Clemson librarians, although admittedly offering instruction in smaller groups, were intrigued by the idea of potentially increasing student participation in their own classes. A group of several librarians brainstormed some potential questions that could be used at the beginning of freshman sessions to check for student knowledge of library research skills. A decision was also made to create questions that could be used at the end of these same sessions to hopefully verify students' increased understanding of these key concepts. Two pairs of three questions each were therefore devised (Figures 1 & 2) using either multiple-choice or true/false formats that could work well with the iClicker devices the students would use to respond.

Figure 1 - Questions at the Beginning of Sessions

Where do you normally start your research?

- A. Google, or another search engine
- B. Print Encyclopedias
- C. Library web site
- D. Wikipedia

Which of these connector words below (they are italicized & in caps) will provide the most focused results?

- A. dogs *LIMIT* fleas
- B. dogs *NOT* fleas
- C. dogs *OR* fleas
- D. dogs *AND* fleas

Respond to this statement: "National Geographic is a scholarly resource."

- A. True
- B. False

Figure 2 - Questions at the End of Sessions

At what stage are Google and Wikipedia best used in your searching?

- A. When coming up with a topic
- B. Narrowing your topic
- C. Finding background information
- D. Finding credible sources to include in the citations for your research paper

Which of the following is not a connector word you would use when searching?

- A. *LIMIT*
- B. *NOT*
- C. *OR*
- D. *AND*

A peer-reviewed, scholarly journal that would include an article you normally could cite for your research paper includes which of the following?:

- A. No information about the author or no author listed, at all
- B. Short, easily read content that includes plain language and even slang
- C. Full-page, color advertisements
- D. All of the above
- E. None of the above

How Librarians Implemented iClickers/Typical Cost & Further Uses

As the requisite iClickers hardware and software were already available on campus, Clemson librarians also decided that a group of iClickers, in this case twenty-five, would be purchased by the Libraries so as to be deployed by library instructors, as needed. Typically students on the campus are required to purchase an iClicker upon arrival for classroom use and tracking of participation for grading purposes, but librarians decided that giving them out in library sessions would allow students to send in responses anonymously and ensure that a clicker would be available during sessions (avoiding forgotten clickers, etc.) Also, the librarians were more concerned with engaging students and generating discussion, rather than tracking grades, as in a credit-bearing course.

Initial response by students to iClickers at the library has been encouraging. Students think the clickers are fun and seem to enhance enjoyment because as a technological device they are perceived as up-to-date and innovative. Librarians that deploy the clickers have been finding that they are tools allowing some flexibility in the planning and delivering of instruction, as clickers introduce an interactive technology method in the classroom.

The investment at Clemson library has been relatively low, so far under about \$1,000 for the group of iClickers and the operation base (with software) which happened to be gifted in this instance by computing and information technology. Further uses of the iClickers could be in library meetings or other settings where a balloting and voting procedure could be initiated. PRS have also been used extensively in public or audience settings (see References).

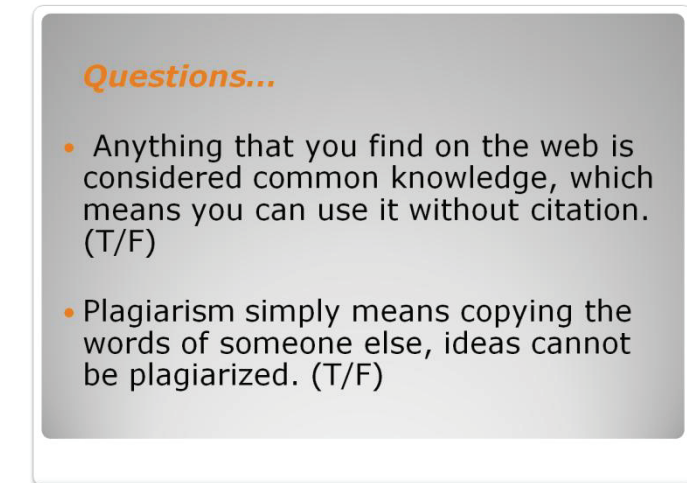
Plagiarism Class Is Born

The library was charged by the Office of Undergraduate Studies with creating a class on plagiarism. This class was meant as rehabilitation to those students charged with plagiarism. In the past students charged with plagiarism were punished, but there was no mechanism in place to teach students about plagiarism.

While designing the class it became obvious that the iClicker technology would be useful for several reasons; interaction, discussion, and gauging what students knew about plagiarism. The class was designed as a fifty minute one shot that would include ten relatively easy true/false questions (Figure 3) about plagiarism. The idea was to bring up a question on PowerPoint and have the students respond with the iClickers. After each student responded the question would then be closed and the results of the true/false question would be displayed. The responses would then dictate the discussion.

After consulting with Clemson's Academic Success Center it was agreed upon that the class would be open to all students, not just those charged with plagiarism, and it would be called, "Plagiarism: What You Need to Know."

Figure 3 - Some Types of Questions Used in Plagiarism Sessions



Conclusion

Although the use of iClickers by Clemson librarians has been experimental, the potential for further use is promising. Clickers for grabbing the attention of students, increasing participation and ensuring engagement and a teachable moment are worth exploring. Part of the initial process for the librarians in deploying them has been devising good clicker questions. Although the responses, so far, by students are typically limited to answers to multiple-choice or true/false questions, it could very well be that in the future clicker or other devices will allow for word or phrase responses, thereby further enriching classroom participation, discussion, and student engagement.

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