

Introduction

A large part of Public Services Librarians' work at the University of Alberta Libraries involves instruction. This can take many forms, including one-on-one consultations, lectures, or library-led workshops teaching everything from database searching and information literacy, to research metrics, research data management, and predatory publishing. Many sessions are curriculum-based, in which we work with instructors to teach students information literacy skills and how to use library resources to excel on a specific assignment.

However, these sessions are typically one-shot workshops in which there is limited time to both assess student learning and cover a myriad of topics. To keep students focused and engaged, we incorporate active learning principles such as hands-on activities, group participation, and gamification strategies. This is important because research shows that the use of different interactive learning modes increase student learning (Oakleaf et al, 2012).

This poster will demonstrate the use of Kahoot (getkahoot.com), an open-source, game-based learning platform as both a formative assessment and active learning tool in the classroom, focusing on a curriculum-based series of library instruction in Pharmacy.



Discussion

Data from responses are stored and can be downloaded as Excel spreadsheets for review. Out of the four questions asked, they performed well in Questions 1 and 4 (see table below). Questions 2 and 3 were more problematic, which may be due to the fact that the quizzes were timed. Students understood that the faster they responded, the higher their scores would be; this may have caused "quick trigger" responses, where they selected the first answer they read. Although the allotted time was 20 seconds, the average response time per question was 6.3 seconds.

Evidence suggests that "when feedback is combined with effective instruction in classrooms, it can be very powerful in enhancing learning" (Hattie & Timperley, 2007, p. 104). Students can identify where there are gaps in their understanding and ask questions on the spot. Moreover, the points awarded in the quiz generates playful competition amongst students "while still remaining in a supportive and nonthreatening environment" (Pitt et al, 2015, p. 1014), and leads to more engagement with classroom content. As Fotaris and colleagues note, a "CRS [Classroom Response System] increases students' attendance, attentiveness, enthusiasm, confidence, and in-class participation" (2016, p. 107).

What is Kahoot?

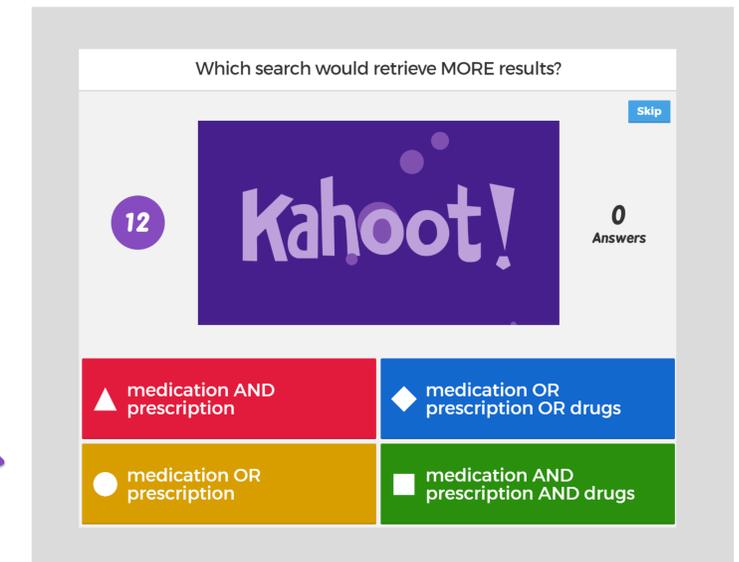
Kahoot allows instructors to create online quizzes (e.g. multiple choice questions) that can be used on any computer or mobile device. It does not require students to create accounts beforehand, making it easily accessible. Operating like an audience response system, students select the correct response on their own devices, and results are tabulated and collected in real-time. Instructors can then use student responses to review and reinforce content. For instance, if the majority of the class answers a question incorrectly, the instructor can use the opportunity to explain the concept differently or use other examples. It further "provides students with the opportunity for self-assessment through a fun and engaging atmosphere" (Fotaris et al, 2016, p. 107).

Case Study

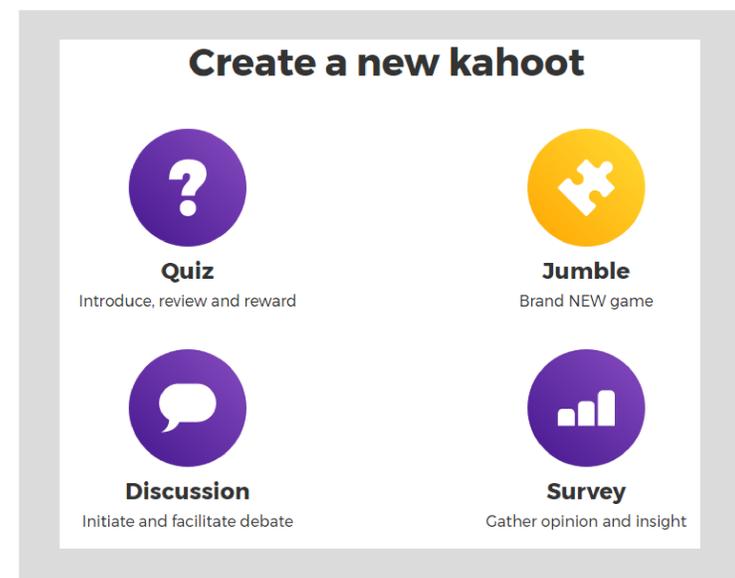
PHARM 304 (Introduction to Core Skills Required of a Health Professional - Drug Information) is a mandatory first-year Pharmacy course. Students are divided into smaller seminar sections (22 students/section) with one library seminar, two-hours in length, held in a computer lab. Learning objectives in the library seminar include:

- Understand library's services and resources
- Introductory understanding of database searching
- Discuss criteria for evaluating websites

The librarian introduces resources students will use as they practice evidence-based medicine. Students also learn a mnemonic for evaluating websites, the CRAP test (Currency, Reliability, Authority, and Point of view). In the last fifteen minutes of class, students sign-in to the Kahoot quiz (via *kahoot.it*) and answer questions to review the material. See sample question in the screenshot to the right.



Kahoot can be used for formative assessments, diagnostic assessments, research projects, and presentations outside of the classroom (Dellos, 2015) including workshops, conferences, and blended learning environments. In addition to quizzes, instructors may also create surveys to generate discussion. Based on the positive responses and immediate feedback observed on the students' level of understanding, Kahoot is a practical assessment tool for reviewing class content where limited time is often an issue.



Results

- 136 students participated in the quizzes with the same number of responses received.

	Correct Answers	Percentage Correct
Question 1	108	79.4%
Question 2	68	50.0%
Question 3	64	47.1%
Question 4	125	91.9%

Other Applications for Kahoot

- Workshops, conferences, blended learning environments

References

<https://goo.gl/APfrLs>