

7 things you should know about...

Live Question Tool

Scenario

The liberal arts college where Dr. Nora Kim teaches has long prided itself on small class size. This past fall, however, a colleague's retirement and budget cuts meant Dr. Kim's Introduction to Psychology would be taught as a lecture class of 200. Because the lecture hall could only seat 120 students, 80 more would take the course online, participating in the lecture through webcasts. Dr. Kim struggled to find a way to integrate the two groups into a coherent learning community, one that could capture the conversational nature of her classroom even with 200 students. She discovered an idea at an IT Tools for Learning seminar, where she saw a demo of the Live Question Tool. At the seminar, the speaker offered a URL for the audience to sign on to an instance of the Live Question Tool. Using the tool, anyone in the audience could type a question and submit it, and the question was projected on the screen in front of the room. Participants could add more questions, comment on existing questions, or vote for the questions they liked best.

On the first day of class, Dr. Kim demonstrated the tool, talked about protocols for use, and introduced the first topic: the psychology of questions. She created study groups of five students—three from the lecture hall and two taking the course remotely. Before the next class, study groups were asked to meet and discuss the reading assignment, "A Critical-Thinking Taxonomy for Questions in Problem-Based Learning." Each group would create one question based on the reading. At the next session, class energy was high. Questions shot onto the Live Question Tool screen at the same time that hands shot up in the air, and Dr. Kim found she was modifying her presentation to the questions she was being asked. She gave periodic breaks in which groups talked about question theory and discussed voting. She wasn't sure the end result could be called a lecture, but whatever was happening, the students in the hall and those participating remotely were excited, engaged, and involved. Then the most important question of the day came across the screen: "What will we be asking questions about for the next class?"

What is it?

Live Question Tool is a web-based service that lets audience members at a presentation post questions for the speaker. As questions are added, other participants can submit comments and cast votes for the questions they hope to see answered first. It is hosted on Harvard University's Berkman Center website, where it is freely available to anyone who wants to use it. Instructors can create a session (called an "instance"), and students can pose questions and vote for or reply to those of others. The presenter can address the queries during the session or later on the site, where sessions remain until someone on the host site removes them. Live Question Tool is an open-source application and one of an emerging class of stand-alone tools that can be hosted anywhere. The tool is simple to access and use and provides the virtually immediate response necessary for real-time question-and-answer sessions.

Who is doing it?

Live Question Tool was developed at the Berkman Center at Harvard University Law School, which introduced the application to a number of educators at the Berkman@10 event last year. All sessions at the event used the tool to encourage audience involvement. The Education Technology Services department at Pennsylvania State University has also done considerable work with the tool, employing it both in informal planning sessions before events and during the events themselves. For constructing the agenda of an upcoming event, Penn State users have found that Live Question Tool works especially well when seeded with 5–10 topics; this breaks the ice, allowing planners to enter the discussion by commenting on what has already been posted. During events at Penn State, the tool has comfortably accommodated audiences of up to 200. Advocates of the application have discussed integrating it into existing Penn State applications for use as part of a coordinated learning system.

How does it work?

To get started, an instructor or other presenter enters basic information into the application to create a new session. Once the "instance" is created, the instructor can share the URL and invite the class to post questions, vote, or comment on the questions posted by their peers. Speakers can draw from these queries during the presentation and might choose to reply to outstanding questions after the lecture. Students could then go back to

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the Berkman site to see the replies. Questions can be submitted anonymously or with a participant's name attached, and audience members can respond to a question or click the on-screen button to vote for it. The more votes a question receives, the higher it climbs in the question list, which displays questions in order of vote counts. The tool can be used from the Berkman site, or it can be hosted locally, which allows a campus to determine the time frame for preservation of sessions.

Why is it significant?

The simplicity of this tool is one of its greatest assets, making it easy to activate and use. As with student response tools like clickers, the Live Question Tool offers an opportunity to constructively rethink the lecture. Like student response systems, the Live Question Tool helps build interactivity into the lecture, providing a backchannel for conversation and inquiry and allowing students to help shape the class discourse. In offering votes, students assess the work of others and take responsibility for shaping the class discussion by determining the order in which topics will be discussed—activities that represent higher-order skills in Bloom's Taxonomy. Students also actively reflect on the lecture material and formulate questions. If an institution hosts its own archive of sessions, this collection can be of use not only to the students who were present but also to students and instructors in future sessions.

Further, the Live Question Tool gives instructors in large classes an opportunity to structure the social backchannel that is an increasingly common component of Internet-connected lecture halls. The tool offers many of the engaging features found on a social networking site—a conversational venue, the opportunity to comment on what is happening, and participation in a larger community—but does so within the structure of the course. With the instructor as an active participant in the backchannel, students may be more likely to keep questions on topic and to use the questions to reflect on the lecture. This ability to harness the dynamic of social networking could transform the lecture model by encouraging students to engage more fully in the process of their own education.

What are the downsides?

The open-source service of the Live Question Tool has no regular update structure and no user support. Institutions are free to host the tool on their own campuses and incorporate it into institutional systems, providing the opportunity to archive their own sessions, but using the hosted solution, while convenient, means sessions are archived only until routine cleanup on the site is performed. Only students with a computer and Internet access can participate in the online discussion, and even among those, not all will want to join. As a result, what is recorded in the tool may represent only a fraction of the class involvement. Because lectures themselves are

not captured, archived sessions lack context. The Live Question Tool provides an opportunity to change the classroom dynamic by opening the online space for discussion, but this means that instructors must relinquish some control to the audience, introducing an element of chaos that some lecturers will embrace and others will dislike. This puts the burden on instructors to set community expectations and establish protocols for appropriate use of the tool.

Where is it going?

The simplicity of the Live Question Tool, which makes it so inviting to use, leads to a wish list of more advanced and integrated features. However, because it is open-source, other institutions are welcome to devise more sophisticated integration into their existing course management systems. By the same token, those who want to archive their sessions can use the code to build their own tools that tie into library resources so sessions can be recalled by anyone with approved access. The result might be a large collection of lesson plans and study materials. In combination with webcasting, a simple application like Live Question Tool can open classes, presentations, and brainstorming sessions to interactive participation by anyone online. As a result, such technology has application well beyond the lecture hall. Events ranging from staff meetings to press conferences may soon employ such applications, some of which will be accessible by mobile devices.

What are the implications for teaching and learning?

The Live Question Tool and other interactive applications are changing the nature of lectures and presentations. These applications, which push tools from physical spaces into the online arena, create a new middle ground for instruction that is collaborative and participatory. The tool can be employed in a classroom of 20 as easily as one of 200, and its anonymous login feature may invite shy responders to join the conversation. This anonymity may be important where classroom content is sensitive or controversial, eliciting questions around topics students are not confident discussing aloud. The tool raises new opportunities to teach students not just that they should question the world around them but how they should go about it. The formation of a valid question, one that triggers thought and opens a path to understanding, is the first step in any quest for answers. This focus on the question emerging from the student rather than the instructor offers promise for blended classes, uniting the audience in activity that is the same for those physically present as for those participating remotely.