10 Strategies for Engaging Learners with Audience Response Systems

Overview

This document outlines 10 strategies for engaging learners with Audience Response Systems. This is not a how-to document; we simply describe some of the types of activities and strategies that may be useful in your course.

IT Solutions Enterprise Tool – Poll Everywhere

Poll Everywhere is a cloud-based student response system (SRS) (sometimes called an audience response system or ARS) that allows instructors to poll students on free response, true/false, and multiple-choice questions. Cloud-based means that the application exists entirely on the web -- there is no custom software to install, nor is there specialized hardware to purchase by either the instructor or by the student.

The tool can be used in either authenticated or public mode, enabling the instructor to use it for course-specific purposes (authenticated) or for more public modes, such as for conference talks or departmental presentations. Each individual question can also be designated as anonymous or authenticated, allowing instructors to invigilate participation or to allow learners to answer anonymously.

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Strategy #1: Gauge Learners' Understanding of a Course Topic
The basics: Gauging actual learning can be challenging and difficult. It is possible that learning opportunities can be enhanced by asking questions. Polleverywhere can be employed to gauge students' understanding because it allows you ask various types of questions to get student responses. This process will not only make learner's progress visible and but also allows you to provide effective feedbacks.

Variations on the approach: Use Polleverywhere to create multiple choice, true/false or open-ended types of questions to create diagnostic assessment opportunities for learners to measure a learner's current knowledge for the purpose of course design.

Strategy #2: Engage in a Challenging or Controversial Discussion
The basics: Discussion based teaching methods are commonly accepted in higher education settings because of its effectiveness. Many instructors are avoiding challenging or controversial discussions because of the difficulty in managing heated discussions. However, these types of discussions can promote higher level of thinking and cognitive skills. Polleverywhere is a powerful tool that may help you

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manage class discussions.

Variations on the approach: Integrate debates using Polleverywhere into your teaching. For instance, divide your students (individually or in groups) into 2 or more groups. Then have students take one position and the following class time have them take the opposing position. And using Polleverywhere, ask them to write their position and present their arguments using evidence.

Strategy #3: Conduct In-Class Quizzes*
The basics: In-Class Quizzes help to check whether students are paying attention, taking good notes, preparing for class or labs, keeping up with homework, actively thinking and finally able to recall material from previous lectures.

Variations on the approach: Polleverywhere makes it possible to conduct quizzes that comprise Multiple Choice, True/False and Free Response type of questions. Instructor can choose to make responses anonymous. The cloud-based database is able to refresh automatically to allow instantly updated information as it submitted.

**IT Solutions outlines some strategies for writing good multiple-choice exam in this document: Guide to Writing Good Multiple Choice Quizzes and Exams*

Strategy #4: Show an Aggregate View of the Preferences or Traits of the Class
The basics: Audience Response Systems can be used to display an aggregate view of the audience's preferences. ARS accurately and quickly tallies and displays the results of the voting. ARS technologies facilitates private submissions, which makes it possible for students to vote honestly and anonymously. This allows each each individual's submission to be represented in the aggregate response of class.

Variations on the approach: Polleverywhere displays the results in several ways; with pie charts and bar graph that update in real time. It is possible also to get access to raw data in table view or in Excel compatible CSV, which allows the instructor to save and analyze student responses offline.

Strategy #5: Just-in-Time Teaching*
The basics: Just-in-Time Teaching (JiTT) is the strategy of asking students questions about a pre-class activity, often a reading assignment or a pre-recorded lecture, before they come to class, in order to build better student comprehension. JiTT supposes giving students "warm up exercises" outside of class and to hold them responsible for learning material before class; class time is used to refine and apply those understandings (Caldwell, 2007).

Variations on the approach: Instructor gives an assignment followed by a short quiz in Polleverywhere to complete before the class meeting. The quiz aims at finding out the areas of difficulties students had while doing the assignment and adjusting the in-class lesson according to ARS results.

*IT Solutions offers an elaboration on JiTT in the Teaching Strategies Series: Just-in-Time Teaching.

Strategy #6: Focus Learners' Attention During Presentations or Media Demonstrations
The basics: Instructors deliver basic comprehension question related to the presentation. Students have to answer it and submit. This gets students focused right away on presentation materials. The question may lead to discussion after the presentation.

Variations on the approach: Polling questions might be multiple choice or free response (depending on the tool), and may be used to gauge learners' understanding of an important concept, to ask for opinions on a controversial question.

Strategy #7: Elicit Questions in the Back Channel
The basics: "A potential way to make the class more active and participatory is to create and leverage a backchannel," (Aagard, Bown, Olesova, 2010). The "back channel" refers to a dialogue that occurs online while a speaker is presenting. This is becoming increasingly common at major conferences. Consider posing a question or a series of questions to your students at the start of a course meeting and encouraging them to discuss it in the back channel as you proceed.

Variations on the approach: Instructors may choose to have these conversations be more or less directed -- that is, students might be encouraged to simply post ideas or responses to the lecture, or they might be directed to respond to a series of prompts. Think about allowing learners to post here for all or part of a participation grade. Consider incentivizing responding directly to a peer's question or statement to encourage more dialogic behavior.

Strategy #8: Peer Instruction or Think/Pair/Share
The basics: Peer Instruction and Think/Pair/Share are similar pedagogical strategies in which instructors pose a mastery challenge question to learners. Learners first commit to an answer by using an audience response system. Then they pair up -- "turn to their neighbor and talk" -- and explain why they thought their answer was correct. The group then comes back together and learners are asked to recommit, either changing their initial response or holding fast. The larger group may share/discuss the outcomes of their paired meetings.

Variations on the approach: It might be possible to form groups larger than a dyad, but we recommend keeping the groups small (four or fewer) if at all possible. Instructors sometimes choose to require their groups to resubmit their group answer together after their small-group interaction. One note is that popular wrong answers tend to become more popular after the small group discussions; if you are using a polling system and you notice a popular wrong answer, we recommend letting the groups know that the most popular answer is incorrect before they discuss so they don't spend time convincing each other of the tenacity of the incorrect answer.

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Strategy #9: Collect and Record Data Outside of Class
The basics: Have students conduct observations outside of the class. Use the Audience Response System to record and save the collected data.

Variations on the approach: As a homework assignment, have students participate in a collaborative data gathering observation, for instance, monitoring local traffic patterns, or facility usage. Students can gather data independently and reconvene in class, or online, to discuss the implications of their collective data recordings. Further exploration into this strategy might see the instructor and students working collaboratively with exported data from the ARS in more meaningful analysis software.

Strategy #10: Take Attendance
The basics: Studies show that student attendance increases when using Audience Response Systems (Caldwell, 2007) When linked to grades or when done on a regular basis taking attendance can increase students' accountability in the class and reduce student attrition.

Variations on the approach: Audience Response Systems can be used to take attendance both directly and indirectly. The direct way supposes a direct question about student's presence, while the indirect way determines who used the ARS during the lesson.

References

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