Engaging Students with Response Systems

Overview and Definition

Audience response systems (ARSs) are a quick way to gather responses from instruction participants. When using these systems, instructors will typically provide directions on how to respond to questions that will be integrated in the presentation. Participants will follow those instructions and use their devices to answer when the presentation reaches a point of response. Responses will either be displayed to all as part of the presentation or only to the presenter. Depending on the type of question asked or the rationale as to why it was asked, the results can help move the conversation forward, check for understanding, gather feedback, or gauge interest.

Why Do You Need to Know?

ARSs have been around for more than two decades, but they have evolved a lot since they were first introduced. They now offer anonymity in responses, flexibility in the device used to respond, and attractive user and analytics interfaces (Sedghi et al. 2021). They also have been shown to prompt satisfaction and engagement for students in instruction (Deng 2019; Funnell 2017; Sedghi et al. 2021). Librarians and instructors can use them as a tool for formative assessment, student surveying/polling, or active learning.

Essentially, when an instructor wants to quickly get a sense of the room for any reason, ARSs provide a lot of ways to do that in an efficient manner that students seem to like.

Current Applications in Libraries and Higher Education

Some popular cloud-based tools include Poll Everywhere, Mentimeter, Slido, Padlet, and Socrative. These ARSs have been shown to be useful engagement tools in both small and large classrooms, in information literacy sessions (Funnell 2017; Grund and Tulis 2020; Rybin Koob et al. 2022; Sedghi et al. 2021), and as ways to enhance learner interactions with normally static presentations (Gronseth and Hutchins 2019). Moreover, the benefits of incorporating them go beyond encouraging active learning pedagogy, inclusivity, and anonymity.

Studies have shown that using ARSs as a learning tool provides multiple ways to engage learners and allows for instructors and learners to adjust in the moment (Gronseth and Hutchins 2019), increases learner self-confidence and satisfaction, fosters collaboration and peer learning through developing a student feedback loop (Sedghi et al. 2021), supports community-building, and improves learner focus (Funnell 2017; Grund and Tulis 2020; Rybin Koob et al. 2022). Though the same studies have shown mixed results with regards to ARSs improving learning retention, students leave those sessions with the sense that their learning is better because of using the ARS and with more positive feelings overall (Funnell 2017; Grund and Tulis 2020).

In one study, medical students across two different cohorts from two information literacy sessions taken in their first and in their third years of the program were divided into four different intervention groups for both first and third year students: 1) clickers 2) Mentimeter or Socrative 3) a mixture of both clickers and an online ARS and 4)
a control group that used no ARSs. All groups across both years incorporated hands-on activities and group discussion to critically evaluate articles and answer questions during the information literacy session. The results showed that the groups using ARSs were more engaged, more excited about the information literacy session, and remained more focused with group discussions, staying centered around the lesson content. In addition, faculty found it much easier to elicit feedback when ARSs were involved. Although students knew responses were being recorded, they still found comfort in the ability to collaboratively discuss responses and learn from one another (Funnell 2017).

Before implementing new technology in the classroom, it is always best to know the advantages and disadvantages of using the tool, to be comfortable using it, to not overuse it, and to understand its accessibility limitations. In another study, teaching librarians discovered that not all ARSs are equal when it comes to screen-reader accessibility. In their experiments focusing on the digital accessibility of five instructional technology tools (Kahoot!, which can include polls; Mentimeter; Padlet; Jamboard; and Poll Everywhere), they discovered that the tools varied in accessibility concerns with very few shared issues. They found Mentimeter to be the most digitally accessible tool, followed by Kahoot! and Poll Everywhere, with Padlet being the least accessible, while also noting that no tool is perfectly accessible (Rybin Koob et al. 2022). Knowing about these issues in advance and having a plan in place to provide multiple means of engagement will help all learners (Gronseth and Hutchins 2019; Rybin Koob et al. 2022).

Potential Hurdles

Before implementing an ARS, be sure to understand what features and functionality are available with your tier in the membership plan. Some features may not be available or may have participant number restrictions (Deng 2019). As instructors plan to use these tools, they should be intentional about what questions to ask students, how to word questions, and how often to ask questions. ARS interaction is best used in moderation (Sedghi et al. 2021; Grund and Tulis 2020; Lowe, Macy, and Stone 2020). When it is time for students to respond, be prepared to provide detailed descriptions of the options so students know what exactly they will be choosing from on their device and why (Grund and Tulis 2020).

When using ARSs, the key problem is access to technology. While ARSs provide device neutrality, it still rests on the assumption that students will have a working device and the ability to connect it to the internet to participate (Grund and Tulis 2020; Lowe, Macy, and Stone 2020). There are other low-tech response systems, such as Plickers, that could help with either of these concerns if they are a consistent issue at the institution (Lowe, Macy, and Stone 2019).

Conclusion

Teaching librarians have consistently looked for ways to boost engagement, and cloud-based ARSs offer a proven method to reach students; improve learner self-confidence, focus, and satisfaction; encourage peer learning and collaboration; foster community; and provide students with an improved outlook on instruction sessions. Instructors who choose these tools purposefully, with considerations towards accessibility and inclusion, will find a variety of interactive options. They can then use these tools across disciplines, in information literacy sessions large and small, while providing all students with multiple means of engagement. From the low-tech offerings like Plickers to the more involved ones such as Mentimeter, ARSs can be an invaluable tool in and out of the classroom.

Tools Discussed

- Jamboard
- Kahoot!
- Mentimeter
- Padlet
- Plickers
- Poll Everywhere
- Slido
- Socrative

References

Further Readings

- Personal Response Systems and Student Engagement
- Make your library instruction interactive with Poll Everywhere: An alternative to audience response systems
- Keeping Students Engaged with Web-Based Polling in the Library Instruction Session
- What works: Classroom polling ideas to engage students


