Finding Your Students' Voices While Creating Engagement with 300 Freshmen

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Introduction

In formal instructional design, practitioners are trained to complete an evaluation of a technology before it is implemented, another evaluation while it is in use, and finally, have methods in place for continuing evaluation indefinitely. In higher education, the literature shows different evaluative frameworks for educational technology. But, the process of evaluating technology is complex and requires many people to participate and make decisions (Kennedy, 2003). Quality frameworks exists for evaluating online courses (Baldwin et al., 2017). However, instructional technology implementation in face-to-face or hybrid courses are still being researched and best practice have not been formalized. Furthermore, the advancement of technology and constant creation of new tools means that the evaluation must be flexible.

The affordance of these many technologies also means that decisions on tool use in the classroom are not made solely at the institution level. From our experiences and the accounts of our colleagues, faculty often find themselves increasingly occupying decision-making roles in the selection of instructional technology for the classes that they teach or facilitate. Given the nature of course creation, we may not consider formal evaluation of a tool before implementation. However, faculty may be "unfamiliar with education evaluation theory and practice" (Kennedy, 2003) and have "limited resource variables of time, skill, and support" (Stavredes, 2001).

Faculty are introduced to these new technologies by their department, colleagues, emails, and conferences. Our experience notes an increase of instructional technology in which students must then pay out-of-pocket fees, data, or both in order to use the tool and the instructor that decides to use it nor the university do not incur a fee, but sometimes even receive a benefit; giving more merit to performing regular evaluations of the tool to ensure it is meeting the objectives of the course and the needs of the student.

The paper will share the experiences of a faculty member, a graduate associate, and a collaborator in instructional technologies of implementing and evaluating the instructional technology used, Top Hat. The informal

evaluation includes the authors' perspectives, an interview with the CEO of Top Hat, and the voices of the students that used the tool for class. Here we take an exploratory look at the use of student voices to evaluated a recently implemented face-to-face and hybrid educational tool, Top Hat. We seek to offer a simple strategy for individual faculty and perhaps department level evaluators.

 One component of formative educational tool evaluation is a pilot to ask the consumers of the tool for feedback. The students are the consumers of the educational technology that is used in the classroom. Student opinions and experiences about the tool should be included in the analysis prior to implementation, the evaluation of the effectiveness of the tool during use, and in the follow-up audit evaluations of the tool. We propose using mechanisms to gather student voices about the use of the tool in the classroom as a way to evaluate the tool and hear from your students.

Our Story

After being hired in 2016 to teach large classes at a university, a faculty member and contributing author to this paper, wanted to engage the students in her large face-to-face and online courses in ways not afforded by the learning management system and clicker technology the university subsidized. A potential solution came in an email to the instructor from Top Hat, offering a "comprehensive teaching platform" that enabled hosting and presentation of her course content online and face-to-face, along with the ability to question students quantitatively or qualitatively. The faculty member, a qualitative researcher, was intrigued. She scheduled a call with a Top Hat representative and was surprised to find they also offered her a brand-new iPad if she would adopt the technology for a course with 300 students. The iPad was ostensibly for operating Top Hat while walking around the classroom, although this was also possible with several other internet-enabled devices she already owned. Although she was concerned about the cost of $26 per semester charged to each student for Top Hat, she found the affordances of the technology outweighed this cost. She adopted the platform and the iPad.

Top Hat became a staple of this instructor's courses for two years, although she was aware that the platform sometimes frustrated students. She found the platform's instructor interface easy to organize and reliable, however, students complained that their interface was confusing. She felt confident that Top Hat was an asset to their classroom overall, but when students complained Top Hat would not load or overcharged them, she could only forward to Top Hat's support center. Some serious problems proved to be persistent. In her third year of using the platform, she noticed students squinting at the screen during face-to-face classes. She discovered that while PowerPoint slides were visible on student devices in class, Top Hat's native slides, called pages, were only visible on the classroom screen, severely challenging students with imperfect vision or in a seat far from the screen. She wondered how could such a serious problem in the core functionality of this platform have persisted for so long.

When the instructor received multiple free invitations from Top Hat to their second annual conference in 2018, she and a team of experts in instructional design decided to research Top Hat more closely and to share their findings socially; this is the team of researchers presenting the current work. We decided that the two of us with expertise in audio interviewing would attend the conference, record (with permission), and broadcast what we learned about Top Hat to students and to other educators through the podcast of our university's office of digital learning. The conference featured a lineup of devoted Top Hat users, proponents of active learning, and venture fund investors tracking the latest gains in the adoption of the technology. Conspicuously, none of the students for whom the technology is ostensibly developed had been invited to the conference. At the conference we critically interviewed educators using Top Hat along with the founder and CEO of the company.

Inspired by the audio stories collected at the conference, upon returning home, we immediately sought and collected a sample of the student perspectives, via an invitation to phone in their evaluations of Top Hat for extra credit. The instructors offered students a small amount of extra credit if they called into her voicemail and answered a prompt. There were a total of 28 prompts. They ranged in topic from what is your identity on social media and does it differ by platform to were you ever bullied on social media. The prompt for Top Hat specifically was as follows: *Tell a story about a digital "Platforms and You"…What has it been like using Top Hat to participate in class(es)? Give us details, stories, frustrations, joys, whatever you've got.*

Out of the 300 students enrolled in the class, 14 students replied. We discovered that while many students felt frustrated by Top Hat - including several whose experiences revealed that the company had systematically overcharged students - the majority of student evaluations were in support of continuing to use the technology while seeking specified improvements, which is the path the instructor selected to follow. Many students appreciated the technology and the convenience of actively engaging with the material through the Top Hat mobile app. "I think it keeps me involved during class, and I like the overall layout of the website. I like how our textbook is broken up into chunks, so it's not just like one book that we have to go through each time," said one student in her testimonial. For example, for the word response questions, Top Hat could not display more than three sentences of text. Students also complained that the slides were not visible on their computer or mobile device during the lecture.

They felt it would have been helpful to be able to see the information on their screen of choice. However, students also questioned the additional fee for the Top Hat platform and in the classroom. "We didn't know that we had to subscribe to this until we got to class, and we couldn't use our bursars' account, which is what I usually put my books on ... it's kind of pricey being 80 dollars for just one class," said another student, who was also required to pay for a textbook through Top Hat.

These voices were compiled and included alongside our completed podcast, and provide an inclusive and unique perspective on the adoption of the Top Hat learning platform. We produced the podcast episode, which ends with a selection of these student perspectives, in December 2018 in the podcast Futures of Digital Learning, available at https://odl.arizona.edu/news/2018/12/futures-digital-learning-podcast-engage-2018.

Considerations for Implementation

In this exploratory project we asked the students to voluntarily provide us with their perspectives on the use of the Top Hat tool in our class. The class is a general elective that surveys the use and impact of social media and a majority of the students are freshmen in the University of Arizona eSociety major within the School of Information. While requesting, collecting, and disseminating the audio stories, we found several items to consider for the next time we ask students for audio feedback.

Consider your prompt. The instructor of the course carefully considered the instructions given to the students and provided a range of prompts. She made it clear that this was for extra credit and not mandatory. She also made a clear rubric as to what would be worth full credit and what would not. There was also careful thought given to the encouragement of descriptive and specific information without harming themselves or others. Students were encouraged to use fake names in the stories. The prompt encouraged the story to be reflective and include topics from class material.

Consider when you ask for feedback; the reflections at the beginning of the semester will be different than other times during the semester. If the prompt is asking for experience with an educational technology, the depth of experience will vary for each student. Depending on your class structure, offering extra credit through audio stories could be used for gathering feedback about a unit or module and the right timing would be during the final assessment.

Consider how you will gather student feedback. A voicemail box has a space limitation. Asking students to send a voice memo to an email account might be a better option. Obviously, this is dependent on the size of your class. In the instructions for the audio extra credit, we asked students to keep their stories to at least 45 seconds. The minimum time allotment probes the student to have a longer and constructed story. Although it was not an issue in our situation, most voicemails have a time limitation. Therefore, setting a max time allotment or at least warning students of these limitations would aid in the assignment.

Consider your time. In order to make meaning from these audio stories, someone will have to listen and evaluate them; a time consuming process. There are methods for transcribing audio that can aid you in the evaluation, but we find that listening to the stories helps us to better know and understand the student. In our experience with a large classroom, it is difficult to get to know your students. With audio stories we can hear the students voices and it feels like we are getting to know them a little better.

Conclusion

Faculty have an opportunity to survey and implement many different educational tools. They are exposed to these tools by other faculty, conferences, or their institution which may mean the tool has been evaluated. They may also be exposed to these tools via email from the companies that create them. In the later instances, it is less likely that the instructor has completed a formal evaluation of the tool. At the time of their selection, the tools are used for certain purposes; maybe to engage the students, disseminate information, or collaboration. Evaluation of a tool may include quantitative measures like the number of times a tool is used, length of time, log-in times, etc., ; qualitative data, like student voices, are useful too. "Quantitative indicators can provide a general overview of a system but more qualitative data are needed to interpret what is happening in specific, real-life situations." (Baron & Bruillard, 2003). We discussed in this paper an opportunity for simple evaluation using qualitative method of student voices. We shared our story and process. We shared some considerations for including student voices as part of the tool evaluative process. This process could be used as part of an overall evaluation and is a simple, effective way to gather student perspectives.

Acknowledgements of Limitations and Areas for Further Research

We acknowledge that the literature reviewed was not extensive. We are aware of frameworks that indirectly ask for student feedback. One framework asks the person that is considering using the tool to consider a context, pilot, and report process. The process emphasizes gathering feedback through a pilot study of those that will use the tool before implementing (North et. al., 2017); this would be the students. Further, more in-depth study of higher education evaluation of instructional technology specifically in face-to-face or hybrid classes is needed. We would encourage further study to include the voice of the student as part of the evaluation process.

Critical evaluations of instructional technology must circulate clearly and often in the same dispersed information environments where educators seek and are courted by technology companies. Our experiences and collected perspectives from students and others around the platform Top Hat form a case in which inclusive evaluation of the medium came later than it should have, but ultimately served our educational communities and networked publics as both critical digital literacy and consumer advocacy. The idea of gathering student feedback is our responsive contribution toward a culture of critical, education- and student-centered educational technology evaluation. We acknowledge the situated nature of our experiences, the limits of reach for including auditory student feedback, and the challenges that come with disseminating critical information in environments that encourage breadth over depth of attention. We recognize that what we are proposing is but a small component of evaluating an educational technology. We intend and invite further research into student pay and other emerging models of educational technology adoption, and advocate continued respect toward students' agency around lived experiences with technologies in education.

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