

UC Irvine

2022 Games + Learning + Society Conference Proceedings

Title

Interactive Lessons on PBS LearningMedia – Developer, Researcher, and Educator Perspectives on Building and Teaching For Diverse Learners

Permalink

<https://escholarship.org/uc/item/5j91k9wj>

Authors

Cayko, Ethan
Keating, Micaela
Butler, Alysha
et al.

Publication Date

2022-09-18

Peer reviewed

Title: Interactive Lessons on PBS LearningMedia – Developer, Researcher, and Educator Perspectives on Building and Teaching For Diverse Learners

Ethan Cayko, Project Manager, Interactive Learning Experiences, GBH

Micaela Keating, Education Research Analyst, GBH

Alysha Butler, Senior Manager, Inclusive Social Studies Curriculum, GBH & High School Social Studies Teacher, District of Columbia Public Schools

Paula Halligan, GBH Educator Ambassador & Middle School Science Teacher, Worcester Public Schools

Abstract: Over the past two years, educators have turned to digital technologies and media more than ever to meet the needs of students amidst a global pandemic. While many edtech tools enable educators to create interactive materials with digital media (e.g., Nearpod, Kahoot!, Quizizz), educators more often seek existing digital resources to supplement their curriculum rather than create them from scratch (National Center for Education Statistics, 2021). Interactive Lessons (ILs) on PBS LearningMedia, produced by GBH Education and fellow PBS (Public Broadcasting Service) member stations, provide teachers with free, standards-aligned, classroom-ready resources. This panel will discuss how GBH Education develops ILs and the IL authoring platform, including findings from research studies on IL usage. Two educators will also discuss how they participate in IL development and integrate ILs into their classrooms to support diverse learners.

What are Interactive Lessons?

Interactive Lessons (ILs) are highly accessible, gradable, self-paced, and media-rich online learning experiences available on PBS LearningMedia (pbslearningmedia.org), public media's free digital service with thousands of standards-aligned educational media resources for PreK-12. Designed to cater to diverse learners, ILs allow students to work at their own pace through lessons containing media (e.g., videos, simulations, or images) and interactive assessment activities. Teachers can directly assign ILs to their students and view students' work on PBS LearningMedia.

In the past two years, usage of the platform has grown and ILs have received over 44 million pageviews¹. To meet increased demand, we scaled up our server infrastructure while concurrently expanding features like Spanish translation and text-to-speech to lower barriers for the diverse learners we serve. In addition to student-facing improvements, we have expanded the utility of ILs for educational research by enabling anonymized student usage data to be exported for review and analysis.

When developing ILs, GBH Education adheres to Universal Design for Learning principles (CAST, 2018), aiming to provide options that anticipate variability in student needs. With our platform, we can represent concepts in multiple ways (video, audio, text, interactives), provide various modalities for students to demonstrate their knowledge (writing, drawing, discussion prompts), and engage students through high-quality videos, interactives, and games. As funding permits, we also build in accessibility for students using assistive technologies such as keyboard navigation and described video alternatives.

¹ Web analytics from January 1, 2020-January 1, 2022.

What are Interactive Lessons good for?

Educators value ILs for their student-centered learning, accessibility features, and flexibility (Suárez, 2021; WestEd, 2021). Teachers also appreciated these features during periods of COVID-related remote instruction, with one third-grade teacher noting: “*Having the website read out loud to them is a really great [feature], especially during remote [learning]*” (WestEd, 2021). These key affordances, along with ongoing research on student usage, help us to focus our efforts when authoring and conceptualizing new ILs.

Through research with our network of educators and youth advisors, we’ve refined our approach to ILs for K-12 science instruction and are now applying and building on those learnings for a new collection of US History resources. This approach is centered on including and promoting diverse perspectives and narratives (GBH Education, 2021) informed by culturally responsive teaching and learning principles, and facilitating critical thinking through historical thinking skills for middle and high school. Furthermore, our ILs are shaped by GBH Education’s strategic framework that centers on equity, guided by the principles *Respond* (to community strengths, needs, contexts), *Include* (communities as co-creators), and *Represent* (diverse peoples and perspectives).

From the perspective of our social studies educator panelist, ILs serve an essential role by transporting students back in time through engaging footage and guiding students through mastery of a concept, era, or skill. Accompanying essential questions and higher order thinking questions also help her focus on what to teach and ensure she is teaching with a high level of rigor. For our middle school science educator, the value of ILs is in their capacity to engage learners using current inquiry-based science topics through video, real data analysis, and opportunities to interact with lesson content through multiple modalities.

References

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