

Smithsonian Center for Learning and Digital Access: Smithsonian Quests

CASE STUDY: Curate, Credential and Carry Forward Digital Learning Evidence: tiny.cc/cccdle

Context: The mission of the Smithsonian Center for Learning and Digital Access (SCLDA) is to use all that the Smithsonian offers to empower learners to explore their own interests and collaborate with others to bring ideas to life. In pursuit of this mission, we create models and methods that make the Smithsonian a learning laboratory for everyone. SCLDA collaborates with Smithsonian museums and research centers to provide extensive digital access to collections, programs, and learning resources to inspire the transmission and transformation of knowledge for the public good. The Center has produced monthly webinars introducing K-12 audiences to Smithsonian specialists in history, culture and the arts and sciences, ranging from botany to zoology. These sessions offer students a unique, insiders' conversation with Smithsonian experts. When the webinar ends, they have options. Stop there or begin working on projects that build on the subject of the sessions. The Smithsonian Quests are associated activity prompts that make connections to educational standards and help build skills in critical thinking, creativity and innovation, problem solving, and media literacy. Each quest provides additional information on a topic, whether it is a short video interview with a scientist or a primary source from the Smithsonian's collections.

[1] What are we doing?

Smithsonian Quests was originally built on the BadgeStack system, with a soft-launch in April 2012. Students choose from a wide variety of quest prompts, which usually highlight a Smithsonian learning resource or a Smithsonian expert's research. Students may record and interview members of their community to get a more personalised view of history. In another quest, they learn about conservation of declining frog species and contribute local data to a worldwide citizen science project, to support the work of a scientist they met in an online conference. Or teens use digital tools to complete quests—accessing remote telescopes from their desktop computers to take pictures of space, 'colorising' the images to detect different light spectrums, and then analysing their data. These are just a few of more than 100 quest opportunities available. A dedicated group of Smithsonian educators and nationally recognised teachers review the submissions and motivate students with personal feedback. From 2011, SCLDA has collected information about our users' experiences with Smithsonian Quests through a variety of formative evaluation studies with external evaluators.

[2] How are we doing it?

The Smithsonian Quests program was created: (1) to provide a way for students to interact with Smithsonian experts and to complete content-


related challenges; and (2) to help us to better understand how classrooms were using Smithsonian content and connecting it to their curricula. The Smithsonian produced over 100 online, interactive conferences for schools starting in 2009. Teachers reported that they needed follow up activities to use with their students to reinforce the concepts and skills presented during the online conferences. Initially, the Smithsonian developed quests as follow-up activities and badges to reward students and document their work. In subsequent evaluations of the Smithsonian Quests program, we discovered that most teachers and youth were completing the badges independently of the online conferences.

[3] Who is involved?

While the Smithsonian Quests badge opportunities are available to anyone with an internet connection, our target audience was middle school students and their teachers. During the first few years of the program, it was clear that the audience also included middle school 'youth'—meaning students were completing the activities in other situations outside of school (for example, with their scout troop, on the weekends with parents, or in after-school programs). The majority of our users fell into the 9–15-year-olds range, with some interesting outlier implementations of the program, including a first year English language seminar at a university in Puerto Rico, or a Kindergarten class completing the



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activities as a group. Each Smithsonian Quest is based on Smithsonian research, collections or learning resources. Over the first four years, SCLDA collaborated with almost every Smithsonian museum, research centre and education team, to provide a wide variety of experiences—from music to art, from environmental science to astronomy, from history to current events.

[4] Why are we doing it?

SCLDA's interest in digital badges grew from the possibility to advance the educational mission of the Smithsonian: (1) to draw on the learning resources of the entire Smithsonian, (2) to support and expand learning, (3) to inspire young people to pursue things they care about, and (4) to provide tools that empower them to take action in their own communities. Our education content team created quests that engage youth with our collections and experts, and use this content as a springboard for their own projects and discoveries. From early feedback from educators, we wanted to help youth (both in formal and informal learning environments) to explore interests and to expand learning opportunities. Digital badging systems also provided an outlet for students to stay connected before and after museum visits, but allowed our team to reach youth who are unable to visit.

[5] What are the challenges?

Over the years, survey respondents repeatedly reported that their main motivators to log on were: the Smithsonian's high quality educational programs and looking for ways to engage students. Quests and digital badges as motivators scored the lowest among other motivational factors. Rather than only having students complete a quest and/or a badge, teachers participated in many different ways. During the 2011–2012 school year, 3% of the survey respondents had actually participated in the badging program. In 2013–2014, an average of 8% of the respondents had students complete a quest; 6% of the survey respondents had students' complete quests in a series to earn a badge. Instead, teachers tended to use ideas from the site rather than specific activities, content or completing quests as they were

originally intended. When implementing quests in their classrooms, respondents did not report a difference between digital and non-digital implementation. Survey respondents indicated that they valued the wide assortment of quests to appeal to different types of learners and a clear connection to curriculum to continue participating. 'Cool-looking' badges that appeal to students scored the lowest among other values. In addition, survey respondents valued mentor feedback associated with the badging program. Survey respondents repeatedly reported the main barrier to start and complete quests was lack of time. Logistics – mostly the registration process – were also indicated as a barrier for sustained participation.

In fall 2015, SCLDA will launch the Smithsonian Learning Lab—a digital platform that will host the Smithsonian Quests program, Collections Search Center (over 1 million digitized images of museum objects and counting!), Smithsonian Education Channel on YouTube (with hundreds of videos of Smithsonian experts), and the Smithsonian Education database (2 000 educational resources including lesson plans, games, and online exhibitions). Users will have one access point to all of this Smithsonian content, the ability to build their own collections and sharing them with others, and tools for modifying their collections (e.g. annotation, editing, and templates for creating quizzes/discussions). One of the major challenges is providing timely, personalised feedback as the Smithsonian Quests program is taken to scale. While decisions have yet to be finalised, a variety of alternate models have been suggested, including: limiting Smithsonian-based feedback to special event challenges. We have also been exploring the idea of maintaining our Smithsonian Quests as student activities within the Learning Lab and allowing external partner organisations to connect to our content through APIs and then issue badges from their platform that show completion of Smithsonian activities.

Resources: [Smithsonian Quests and the Learning Lab](#); [Smithsonian Learning lab, coming fall 2015](#)

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