Evaluation of a Children's Learning Tool Designed for Tablet

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A THREE-PHASED RESEARCH PROGRAM

A PUBLISHING COMPANY WITH A LONG-STANDING POSITIVE TRACK RECORD for developing educational web-based learning tools discovered that the feedback for their latest tablet app for mathematics targeted at 8 to 10-year-olds was mostly negative.

The qualitative feedback submitted via surveys and store review systems indicated that there were barriers for success, but it was apparent that most reviewers were unable to identify specific points of failure. Alongside Key Lime Interactive (KLI) researchers, the company's design team wanted to understand what exactly they needed to change to satisfy their target audience and increase their ratings.

Our Solution

Traditional in-lab moderated user testing methods was determined to be the best approach to identify the root of ill satisfaction among the 8 to 10-year-old population. A study was designed that was task-based in nature and our skilled moderators created a series of warm-up questions to get the children comfortable and vocal about their experience. Fourteen participants, half male and half female, aged 8-10 of varying mathematical skills were observed in 30-minute sessions at a lab in New York, NY.

60% of the group self-reported that the app lacked elements that make math fun.

As they walked through the scenarios and associated tasks with the KLI moderator, they were probed to report what they liked, what they didn't like, what they saw, heard, thought, and expected. At four distinct points throughout the session, they were asked to rate their overall opinion of the app in an effort to understand how differing levels and exposure influenced their opinion. Design team members observed the sessions from the other side of a one-way mirror and the participant's screen was shared wirelessly on a large TV in the observation space. Designers were permitted to ask questions via the moderator at the end of formal testing to ensure that they were able to fully appreciate the context of decision making for the participant.

The Results

Going into the research, the design team hypothesized that elements, such as color and size, directly related to the visual design wasn't inviting or motivating. They had some ideas about alternative visual design that they considered implementing as a contingency plan. They were surprised to discover that participants self-reported the following components were missing from this learning tool:

1 Sound. Nine out of 14 children indicated that playing the game in silence was "boring" or some variation of the word "boring." One stated, "Maybe you can play a gong when I get the answer right, so that I realize right away that I am perfect." This learning tool was compared to that of a spelling app that had an ascending chime sound when the proper spelling of a vocalized word was submitted.

2 Additionally, the participants indicated that they wanted some sort of visual reward system. As it currently stood, they progressed through ten levels, with ten questions as part of each level throughout a "chapter", and they saw an indicator of which chapter and question they were working on in the upper right corner of the screen. It was suggested, however, that perhaps they could get a prize, or "see a funny video" if they answered all of the questions correctly. Sixty percent of the group self-reported that the app lacked elements "that makes math fun".

In a co-creation workshop that immediately followed the 14 sessions (on day three of testing) the researchers were able to lead the design time in a creative concepting discussion, in which they storyboarded the inclusion of both sound and a visual video reward when various levels were mastered. Fortunately, the client also produced multimedia creative assets that could be leveraged to fulfill the desire expressed by the participants, but also to assist in marketing efforts for this app.

The survey revealed that there was in fact lift and, on average, reviewers rated the tools experience as positive.

Finally, a user survey was distributed to a new set of users after the changes were fully rolled out and the survey revealed that there was, in fact, lift and on average reviewers rated the tools experience as positive.

Other ways to use this methodology

- KLI has conducted tablet tests for the retail shopper for one of their clients asking them to report on elements included in a checkout process.
- Mobile tablet testing is common in all industries, but specifically tablet testing was required for a new EMR system employed at 12 pilot doctor offices. Input to the system was to come via tablet, therefore, they needed to ensure that the nurses understood all field completion expectations were functional and secure for patients to feel confident reporting their information.
- Was easy for all parties to navigate with clear messaging and concise completion instruction.

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