

# Geo-Holo- Play Test Report

## Group Survey Information:

Both the synchronous and asynchronous playtest survey-takers were provided with the questions below

1. What level of experience do you have with technology?
  - a. Likert scale item from 1 (beginner) to 5 (expert)
2. What level of experience do you have with playing games?
  - a. Likert scale item from 1 (very little) to 5 (avid gamer)
3. What is your current profession?
  - a. Short text response
4. What is your age?
  - a. Multiple choice: 18-24, 25-34, 35-44, 45+

The following were only included in the asynchronous playtest survey and were collected as long text responses:

5. What was your impression of the game?
6. What frustrations did you encounter while playing?
7. What did you like about the game concept? Please answer in as much detail as possible.
8. Were the instructions for the game clear? What would you take out or add?
9. What did you think about the story and characters?
10. How did you feel about the game mechanics and reward structure? What changes would you make?
11. Did you feel prepared to complete the checkpoint levels (the levels that required you to order rock layers on your own)? Why or why not? What changes would help you feel prepared?
12. What did you enjoy about the game?
13. What other feedback would you like to share?

## Summary of Individual Test Sessions:

Below you will find a summary of each team member's individual playtest session.

**Michael:**

For this test, I was able to host a synchronous test while in the same classroom as my playtester. The playtester was a 20-year-old, college sophomore who is currently in school for education. They were visiting a coworker of mine and volunteered to play the game and give feedback on what they liked and where they saw room for improvement. The process for the test was as follows: the tester played the game without any prompting, I then asked our groups questions, and then the tester played the game again to give specific feedback after hearing what the questions were. The questions were a broad range of demographic questions and then questions specific to the game itself.

The playtest lasted around 45 minutes, with 25 minutes being the conversation with no gameplay and the other 20 being the game being played. There were no issues with the game in terms of performance and the tester could complete the objectives with no issue. For this test, the results were overall positive with the tester seeing no real issue with the game at hand. The first note they made was the length of the game and when I explained it was a prototype they understood and went on to focus on the actual learning aspects of the game. They said they could see themselves learning about geology from this game and wanted to play more.

**Jason:**

For this playtest a synchronous test was performed. The play tester was given the link to the prototype game and then asked to answer the identified questions. The play test and Q&A session took approximately 15 minutes total. This play tester identified in the 18 – 24 age range, moderate experience with technology, and absolutely no experience with playing games. The player is a registered nurse.

Before the playtest began, a disclaimer was presented stating this is just a prototype and the purpose of the playtest is not to focus on the current state of the prototype. During the playtest and in the feedback, the player expressed frustrations with the second level of the game as they had to repeat a few times. The player identified the game as being geared toward a younger audience, but upon further discussion recognized that it would be applicable for an introductory level class or for a geology intern. The player felt comfortable with the level of instructions and general understanding needed for the game. Some of the feedback, written and verbal, expressed general concern for the look of the characters, specifically of the “Mr. Geo.” character. However, they did express appreciation of the overall gender-neutral aesthetic of the game design.

The overall experience of the playtest was positive with minor suggestions for changes to the character being the main feedback. The player identified that the game did seem to be a good learning experience and could “see how it could be used in a class”. The player mentioned that with a few minor adjustments to the controls, specifically in the earthquake level, that some of the frustrations would be reduced.

**Erin:**

For this playtest an asynchronous test was performed. The playtester received a link to a Google form with the 13 questions detailed above, as well as a link to the game. They were then free to play the game and answer the questions at a time that was convenient for them.

The playtester was an individual with an age of 45 or above. They responded that they have an expert level understanding of technology, and a moderate amount of experience with playing games. The playtester works within the field of higher education. The player did not report any technical problems during playtesting.

In their feedback, the playtester noted that, in our initial level, they were not clear as to why they were collecting rocks- they did not have a clear idea of the goal of the level. Additionally, the playtester was frustrated by the second assessment level, and got stuck without being able to complete it. They noted that another approach to remediation (one that doesn't force the player to start over) or more encouragement during that level might have been helpful. The playtester also stated that they did not feel prepared for the assessment levels in general. They said that the content levels did not communicate the importance of the information presented to our players, and some additional instructions and guidance might be needed to make sure players understand what they are doing, why they are doing it, and to make sure they have the information necessary to feel prepared for assessment. Regarding the instructions the playtester suggested adding “something about what is coming next to build adventure and excitement.” Overall, this playtester reported that the game was educational and that with a few changes it could be “great fun.”

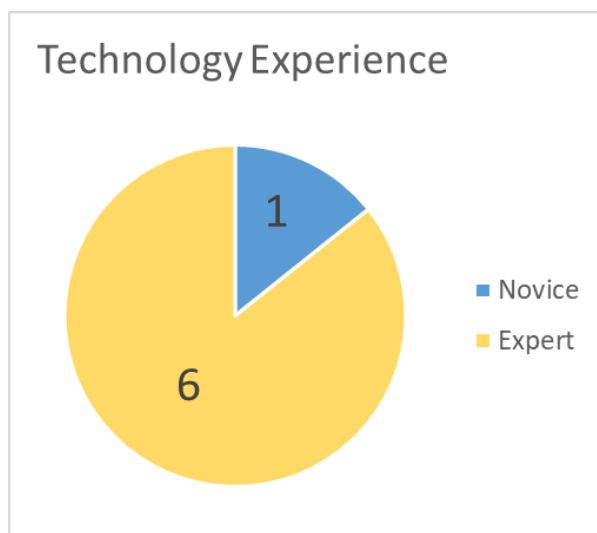
**Hillary:**

I administered our playtest asynchronously. It was very simple - I just sent an email with the game link and survey link. My playtester was an Assistant Professor in the 25-34 age range. She said it was well-paced and straightforward, but might better serve an audience younger than undergraduates. She felt that the “game concept is well done, I like the fact that students build up their layers and learn about the different

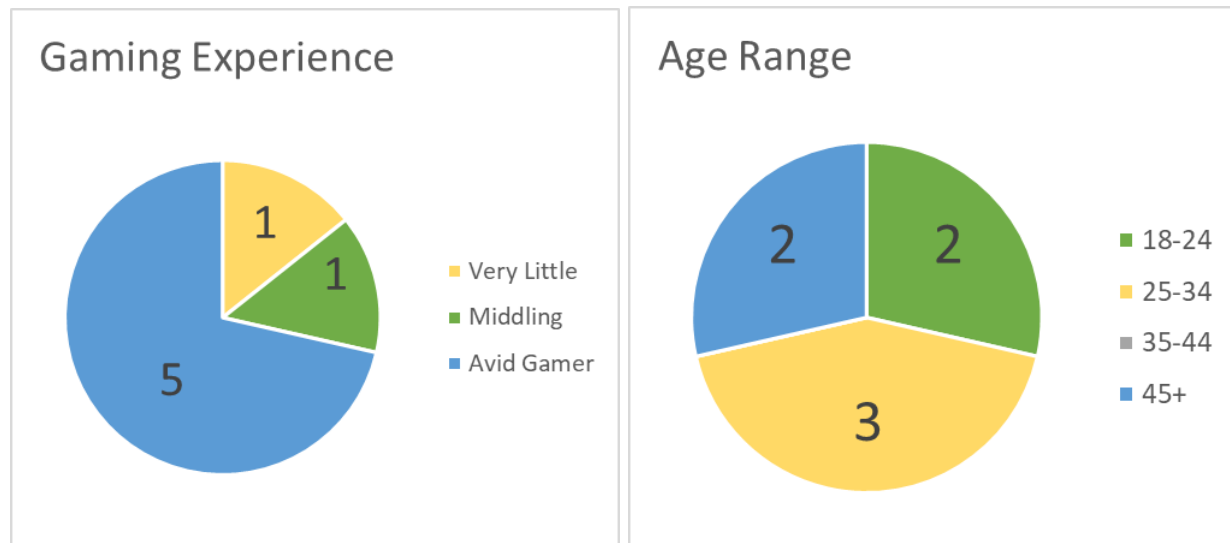
types of sedimentary rock as they do so. I felt that the link to original horizontality could have been emphasized in more detail.” She also wasn't crazy about Mr. Geo, which is sad because we all thought he was pretty fun. I can see the benefit from a female geologist main character instead, and we have discussed including other characters modeled after real geologists or changing Mr. Geo to a person in a future version. Other helpful feedback was that it was strange to switch back and forth from mouse to keyboard in the formative assessments and I agree - ideally hands could stay in the same place throughout our game. She also mentioned that she liked the reward structure, but would like to see something like a progress bar at the top so that she knows where she is in the progression of the game. Lastly, she stated that she “failed the earthquake several times not realizing (she) didn't have to move the hover board too much to stay on. The one other task that I failed first go was matching the order of the rock layers because I thought it was memory based, as in that I needed to recall the order of the sedimentary rocks from the 'building layers' activity.”

## Summary of Group Results:

Six people responded to our asynchronous playtest survey and one person responded to our synchronous playtest survey. Six of them ranked themselves as experts in regards to experience with technology, and one respondent One respondent ranked themselves in the middle with three out of five.



One person ranked themselves as someone who plays games very little (1), one respondent ranked themselves exactly in the middle between avid gamer and very little for experience playing games (3), and five respondents ranked themselves as avid gamers (5).



Three of the participants were between 25 and 34, two were over 45, and two were between 18 and 24 years old. Reported professions of playtesters included Assistant Professor, Higher Education, Teacher, Science Teacher, Associate Teaching Director, College Student, and Registered Nurse.

In summary, the responses from the playtest were positive with only a few minor issues identified. Most players enjoyed the game as a whole and found value in the content and with the method of delivery of that content. The biggest frustrations identified were the controls (switching between mouse and keyboard) and the 2nd level (earthquake level). Our testers thought the concept of the game was well done, with one tester stating, "I can easily see this game in a classroom." Testers agreed that the instructions were clear and easily understandable, with little to no change needed to those. Testers also enjoyed and appreciated our reward/feedback design. There were a few comments encouraging a bit more to be added to the area, but still overall positive.

After reviewing the feedback, one of the major changes the team will be focusing on is the character design. In general, the designs and aesthetics of the game were acceptable. However, it was brought to our attention that we should offer more diversity, inclusion, and use this opportunity to showcase more female scientists in the game. Since the playtest was focused specifically around a few levels of the game, we feel we can easily add a few more inclusive characters into the game design at different intervals to meet this goal. Another change will be the adjustment of the second level. This was one of the notable frustrations of our playtesters, and as a group it is something we will be rethinking to provide a better experience to our learners/players.

Based on some users' noted difficulties with passing the assessment levels and their feelings of preparedness we may also want to rework the delivery of our content

and solidify the instructions. This may also include adding in additional information to the content levels, or changing the feedback system for incorrect answers on the assessment. One additional suggestion given was for us to state our learning objectives in the beginning of the game. This may allow for learners to have a clear picture of the learning goals they will be able to accomplish by the end of gameplay.

As a team we don't feel there would be any updates to the general idea of our playtest. Using the questions we had, we were able to get very valuable information about the design and could really identify the good and bad parts. If anything, we would like to get more opportunity for synchronous playtesting to better compare in person playing versus not in person.