Pokémon Go

Usability Test Report

Prepared for: Niantic Labs

Prepared by: Nicole Kadom

Ian Oliver

Katie Peterson

Chue Vang

Jessie Wu

May 5, 2022

Table of Contents

Executive Summary

Our group is composed of 5 people: Jessie Wu, Nicole Kadom, Chue Vang, Katie Peterson, and Ian Oliver. We remotely conducted usability testing on Niantic Labs' game, Pokémon Go during the period from February 2022 to April 2022 (during this time, there were still procedures put in place to protect others from COVID-19). We launched 3 tests (which allowed 3 responses each due to financial constraints) on usertesting.com on April 19th, 2022, and received results back during the next 12 hours.

These three tests included:

- One where users would participate in a card sort, where the participants would be organizing 20 features in the game into three columns which represented sections of the game's menu. (Used optimalsort.com - 3 responses)
- Our second test was geared toward new users and tasked them with going through the onboarding process of the game and putting on a specific hat (Magikarp Hat) during the apparel customization part of the character creation. Once they completed that, they were tasked with catching a Pokémon on screen. After they completed that task and the tutorial, they were asked to find the AR feature, toggle it on, and catch a Pokémon with it enabled. (Used usertesting.com - 3 responses)
- Our final test was geared towards experienced players. They were tasked with finding features of the game that our team found to be difficult via the PURE research method. These features were: find the postcard book, find the journal, set

up your Pokémon party for battles and raids, identify a PokéStop/gym on their map, and if accessible, spin it. (Used usertesting.com - 3 responses)

Through the data we gathered from our usability testing and the findings we had from our heuristic evaluation and our PURE research method, we found weaknesses surrounding the hierarchy of Pokémon Go's menus and features. We found that a majority of our users organized features differently from the pre-existing structure of the app (optimalsort.com). We also found that users had a difficult time finding various features in the game. These features (ranging from accessories to sections of content) were predicted to be challenge points in our tests (PURE research method) and were shown to be difficult, and in some cases, unable to complete. (usertesting.com)

This report contains an in-depth look at our findings and the steps we took as a team to acquire them. The following can be expected to be discussed in this report:

- Step-by-step setup of each of our tests and our decisions surrounding the use of usertesting.com and optimalworkshop.com
- The creation of our heuristic evaluation
- Summation of our categories from the PURE research method
- Group analysis of each test and how it agrees/disagrees with our heuristic evaluation and PURE method

Based on the feedback received from our tests, we have come to the conclusion that multiple revisions should be made regarding the hierarchy of Pokémon Go to improve the

overall functionality of the game. It is recommended to make these necessary adjustments:

- Order the contents of various menu features in a way that makes sense to users
- Include more on-screen instructions regarding the basic functions of the game during the tutorial
- Include descriptions of basic accessories so that they can be observed in a way that reduces cognitive load
- Show users where and how to set up their party (this is a new feature that isn't obvious to legacy and veteran players who are used to set up the party during a raid)

These changes are needed to improve the overall look and feel of the app. As previously stated, this will reduce the cognitive load for new players as well as veteran players. In completing these changes, Pokémon Go will have a much easier experience for all players which could improve player retention and “quality of life.”

Goals of the Research

The goals of usability testing include establishing a baseline of user performance, establishing and validating user performance measures, and identifying potential design concerns to be addressed in order to improve efficiency, productivity, and end-user satisfaction.

- **Determine design inconsistencies and usability problem areas within the user interface and content areas.** Potential sources of error may include real-time queuing and time delays on certain features.

- **Identify navigation errors, information organization of the app, and find where the app's navigation hinders users.** Some examples of this could be a failure to locate certain navigation items.

- **Identify presentation errors and assess control usage problems.** For instance, if there are any selection errors due to labeling ambiguities.

- **Find and address any blatant issues users have with the overall usability of the app, and establish baseline user performance and user satisfaction levels.** An example of this could be assessing how effective and usable the onboarding experience is for new users.

How We Conducted Our Research

To begin, our research team created a project proposal document. In the proposal our team identified the problems with Pokémon Go and set the tests we would conduct in order to improve the product. For this document, our team did a competitive audit as well as a literature review in order to define the gaps in the market, and to help us gain a better understanding of what previous research has been done with Pokémon Go. Finally, our team used this document to define what research methods we would use and what data will be obtained.

From this proposal, our team created our usability test plan. The purpose of this test plan was to methodically break down how our team would utilize each research method and how we would conduct our tests.

Our team began researching with a Heuristic Evaluation of Pokémon Go. To accomplish this, each team member was assigned heuristics to use in their review of Pokémon Go. The team then came together collaboratively to go over everyone's findings and proposed solutions that Pokémon Go could employ in order to improve the experience for users.

Next, our team utilized the PURE Research Method in order to assess the difficulty of various tasks. As our team is composed of experts in terms of usability as well as Pokémon players at various stages of familiarity with different titles, we are uniquely equipped to test Pokémon Go based on varying criteria.

Finally, we created three separate tests to give users through UserTesting.com. These tests were a card sorting test, a new users test, and an experienced users test. The card sort test focused on getting insight into how users prefer information to be grouped and in what type of hierarchy. The new users' test focused on the onboarding (tutorial) experience of Pokémon Go and aimed to gain data on how well new users are taught the game and its mechanics. The experienced users' test focused on how experienced users interact with the game and aimed to gain data on where the game loses them. Following the conclusion of these tests, our team analyzed our usability test findings.

Emergent Findings

While we were conducting our usability tests, we identified a number of emergent findings:

- Order the contents of various menu features in a way that makes sense to users
- Include more on-screen instructions regarding the basic functions of the game during the tutorial
- Include descriptions of basic accessories so that they can be observed in a way that reduces cognitive load
- Show users where and how to set up their party (this is a new feature that isn't obvious to legacy and veteran players who are used to set up the party during a raid)

A List of Key Insights

Along with our emergent findings, we discovered a list of key insights that we want to emphasize:

1. The onboarding experience on Pokémon Go lacks clear and helpful instructions
2. Clothing customization is confusing and the labels are not clearly visible
3. Most players did not have a PokéStop easily accessible to them
4. Users did not know how to activate the AR feature
5. Battle and profile were often confused in the card sorting for navigation
6. There is not enough context in the game to explain what each of the categories means

Each Insight Contextualized with Supporting Details or User Quotes

While we were able to gather our key findings, we have various quotes and evidence to prove them. For each finding, we will go into what our users have said, what they saw during the test, and what they did. Then, if applicable, we will tie it to our PURE research method and heuristic evaluation findings.

Finding 1: The onboarding experience on Pokémon Go lacks clear and helpful instructions.

- Say: “I didn’t know how to throw the ball.” - New User 2

- See: Saw a Pokémon (Charmander) appear on the screen and a Pokéball at the bottom of the screen.
- Do: Tries to tap the Pokéball or swipe on it. The Pokéball goes in the wrong direction.

How does relate to our PURE research?

- Throwing a Pokéball was marked a “2” where it requires some cognitive load for the user.

How does this relate to our Heuristic Evaluation?

- Flexibility & Efficiency of Use: Pokémon Go should've provided a tip on how to throw the ball to make it easier for novice users.

Finding 2: Clothing customization is confusing and labels are not clearly visible

- Say: "If each item was labeled, it would make this experience much faster." - New User 3

- See: Sees a horizontal scroll of clothing items that do not have names.
- Do: Has to click every item to be able to see which one is the Magikarp hat.

How does this relate to our PURE research?

- Customizing clothing items was marked with a "2" where it requires some cognitive load for the user.

How does this relate to our Heuristic Evaluation?

- Flexibility & Efficiency of Use: Pokémon Go should've provided labels that the user can easily read before clicking on an item

---

Finding 3: Most players did not have a PokéStop easily accessible to them

- Say: “The PokéStop is not easily accessible to me.” - Experienced User 3

- See: Sees a PokéStop far off in the distance.
- Do: Taps on the PokéStop to see the name of the location. Estimated how long it would take to get there.

How does it relate to our PURE research?

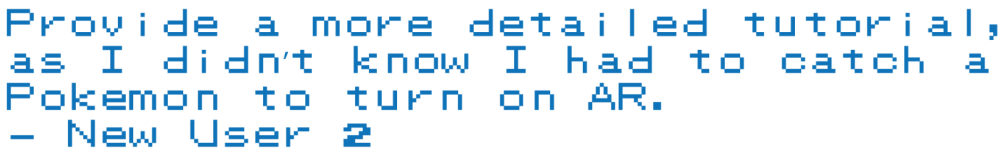
- Approaching a PokéStop was marked a 3 since many are not accessible to players. In addition, spinning it was also marked as a 3 because there is a lack of instructions to do so, and there are no clear indicators that inform them of spinning it.

How does this relate to our Heuristic Evaluation?

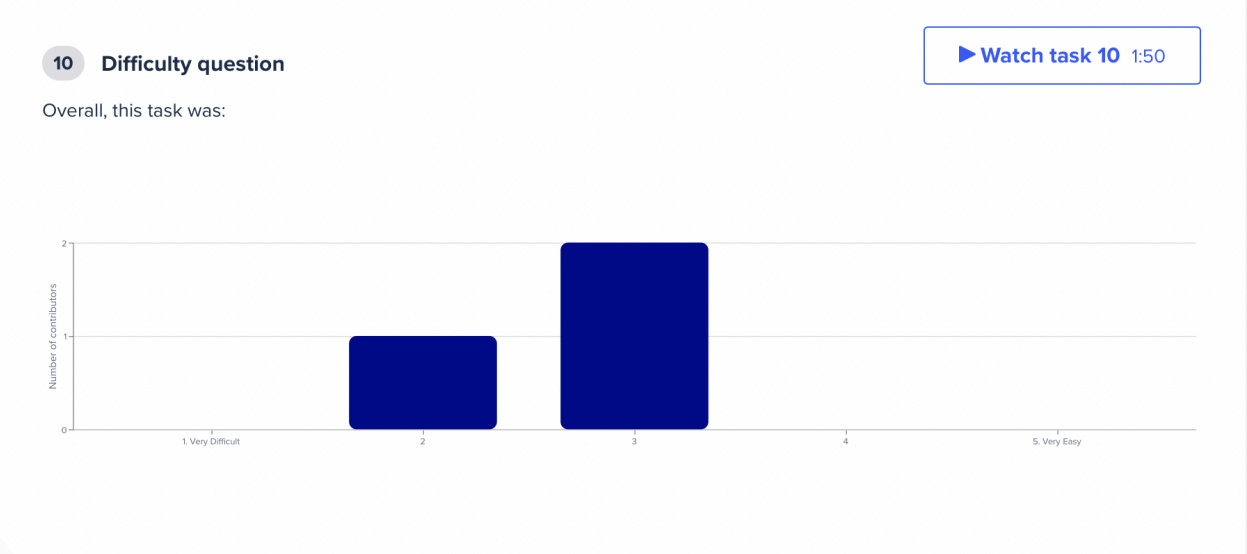
- Match Between System and the Real World: gyms and PokéStops are based on popular locations.

Finding 4: Users did not know how to activate the AR feature

- Say: “Provide a more detailed tutorial, as I didn’t know I had to catch a Pokemon to turn on AR.” - New User 2



- See: Did not see an AR button anywhere
- Do: Tries to click several different buttons in search of the AR mode.



How does it relate to our PURE research?

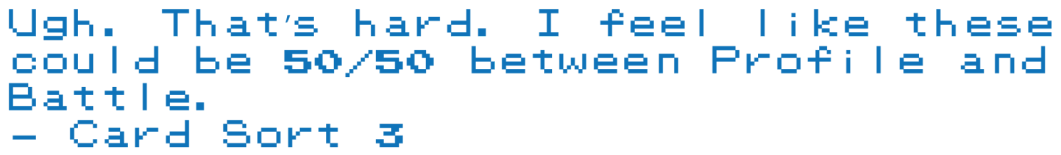
- Throwing a Pokéball with AR mode turned on was marked a “3” where it requires some cognitive load for experienced users.

How does this relate to our Heuristic Evaluation?

- Flexibility & Efficiency of Use: Pokémon Go should’ve provided a tip on how to throw the ball in AR mode to make it easier for novice users.

Finding 5: Battle and profile were often confused in the card sorting for navigation

- Say: “Ugh. That’s hard. I feel like these could be 50/50 between Profile and Battle.” - Card Sort 3



- See: Sees the “View your Gym badges” card, and the three categories: Profile, Battle, and Research Fields.
- Do: Decides to place it under Profile.

How does it relate to our PURE research?

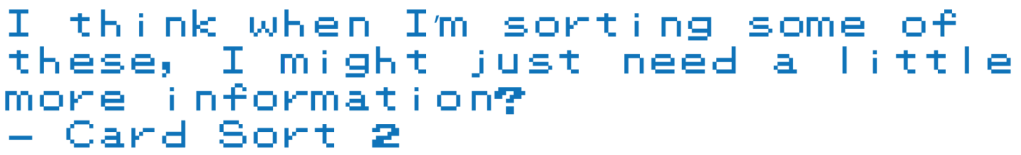
- N/A

How does this relate to our Heuristic Evaluation?

- Consistency & Standards: many users were confused about the Profile and Battle categories because it doesn’t mirror other Pokémon games.

Finding 6: There is not enough context to explain what the navigation categories mean

- Say: “I think when I’m sorting some of these, I might just need a little more information?” - Card Sort 2



- See: Sees the cards that they are trying to sort.
- Do: Puts the card in the category that is their best guess.

How does relate to our PURE research?

- N/A

How does this relate to our Heuristic Evaluation?

- Help and Documentation: there isn’t enough context in the game that explains what each of the categories are really supposed to do. If they want more context, they’ll have to find the FAQ which takes them out of the game.

Recommendations & Action Items

Taking into consideration our team's research findings, we propose the following items as recommendations and action items that could be utilized in improving Pokémon Go.

1. **Improve understanding of categories and hierarchy**
    a. Many participants were confused by the categories presented to them in-game. The category titles appear to be too broad and are too similar to each other which leads to users not knowing where to find certain in-game features. For example, users looked under “Profile” for features that were under “Battle”. We recommend changing the category names, creating more categories, or otherwise clarifying what can be found under what category possibly by using in-game tips.

2. **Improve onboarding experience**
    a. Participants noted how there was a lack of information in the onboarding experience. They mentioned how they did not know you had to throw the Pokéball at a certain time, and the rings and their colors were not explained. Many of the features of the game are also not shown to the users in the onboarding experience which led to many users not knowing of their existence and never using them. Hence, we recommend improving the onboarding experience and making it more in-depth in order to give users a solid base of knowledge of how to play Pokémon Go to the fullest by utilizing all of its features.

3. **Provide accessible “help”**
    a. During testing, we observed that many of the users would get lost or confused while playing Pokémon Go, however, none of them were able to find any in-game “help” to remedy their problems. This led to them giving up on some testing tasks or skipping them altogether. While the team found an official help section in the game, it was difficult to locate and hard to use. Thus, we recommend adding a more in-depth onboarding experience or some type of easily accessible in-game “help” in order to teach the players all of the features of the game and help them find features when they get lost.
4. **Improve in-game instructions**
    a. Participants noted how there was a lack of instructions in the game. Participants expected to get help right away if they were lost, but they were not able to find any. Also, the experienced users specifically mentioned that they did not know some features existed such as the feature to create your battle party before starting a battle. We recommend adding some kind of tips into the game in order to draw users’ attention to features that may be overlooked or help them when they are lost.

References

Pannafino, J. (2017). UX Methods. *A Quick Guide to User Experience Research Methods*.

World Leaders in Research-Based User Experience. (n.d.). 10 usability heuristics for user interface design. Nielsen Norman Group. Retrieved March 31, 2022, from https://www.nngroup.com/articles/ten-usability-heuristics/

Appendix: Methodology and Research Questions

The following are the four research methods that we used to help us to determine if Pokémon Go is meeting the needs of its users are:

- Card Sorting (Qualitative)
- Heuristic Evaluation (Mixed Method)
- Think Aloud Protocol (Qualitative)
- PURE Research (Quantitative)

We conducted usability tests virtually through the usability testing platform, UserTesting.com. To be specific, we completed a card sort and created task-based scenarios for the new and experienced users. During each test, the users used the think aloud protocol (TAP) to help our team understand how the users interact with the information hierarchy in the game.

Appendix A: Test Script

Through usertesting.com, we created the four-based scenarios for the new and experienced users:

For the new users, we gave them the following scenarios:

1. Complete the app's onboarding experience.
2. Customize your character by putting on the redfish hat (Magikarp hat).
3. Catch Pokémon with AR mode turned off.
4. Catch Pokémon with AR mode turned on.

For the experienced users, we asked them to:

1. Find the postcard book.
2. View your journal.
3. Set up your Pokémon party.
4. Spin a PokéStop or gym.

Appendix B: Post-Test Survey/Questions

Once the users have completed their test through usertesting.com, we asked them follow-up questions to help us have a better understanding of their experience with Pokémon Go and what areas needed the most improvements.

For the card sort, we followed up with these questions:

1. What task did you struggle with the most, if any? If applicable, can you elaborate as
2. to why?
3. Do you have any comments or suggestions to improve your experience using Pokémon Go?
4. If you could create a category/categories, what would they be?

For the new and experienced users, we also followed up with these questions:

1. What task did you struggle with the most, if any? If applicable, can you elaborate as to why?
2. Do you have any comments or suggestions to improve your experience using Pokémon Go?

Appendix C: Competitive Analysis Table

Pokémon Go currently has the following competitors: Zombies, Run!, Ingress Prime, The Witcher Monster Slayer, and Jurassic World Alive. After analyzing and comparing each of the competitors and their features, we transformed them into a table.

	GPS Location	**Augmented Reality**	**Onboarding Experience**	**Leveling Up System**	**Battling System**
Zombies, Run!	Same as POGO	N/A	Better than POGO	N/A	Similar to Defending Gyms
Ingress Prime	Same as POGO	Less than POGO	Confusing onboarding	Similar to POGO	Similar to gym battles
The Witcher Monster Slayer	Same as POGO	Same as POGO	Same as POGO	Same as POGO	More involved than POGO
Jurassic World Alive	Same as POGO	Same as POGO	Better than POGO	Same as POGO	More involved than POGO

In our analysis, we discovered that all of the competitors use GPS location and an AR feature while Zombies, Run does not. We also found that the Witcher has a similar onboarding experience, while both Zombies Run and Jurassic World have a better onboarding process than Pokemon Go. Ingress Primes was found to have a confusing onboarding experience compared to Pokemon Go. In terms of the leveling up system, most of the competitors are similar to Pokémon Go except Zombies, Run. Lastly, the Witcher and Jurassic World have a more involved battling system. Zombies, Run's battling system is similar to Pokémon Go's Defending Gyms and Ingress Prime's battling system is similar to Pokémon's gym battle. This table provides helpful data as it provides our team insight into the areas that needed improvements.

Appendix D: Nielson's 10 Heuristics

Our team conducted a heuristic evaluation to find any barriers or pain points of the Pokémon Go app. To complete this, we utilized Neilson's Ten Usability Heuristics as a guide to better understand Pokémon Go's overall design as well as determine Pokémon Go's strengths and weaknesses in terms of usability.

Neilson's ten usability heuristics are:

1. Visibility of System Status
2. Match Between System and the Real World
3. User Control and Freedom
4. Consistency and Standards
5. Error Prevention
6. Recognition Rather Than Recall
7. Flexibility and Efficiency of Use
8. Aesthetic and Minimalist Design
9. Help Users Recognize, Diagnose, and Recover from Errors
10. Help and Documentation