IMPROVING POKEMON GO

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Pokemon Go was released in July of 2016 to much fanfare. The cultural phenomenon set multiple world records with regards to downloads and revenue generated. Within the first month, Pokemon Go had generated over 200 million dollars in revenue and was downloaded over 130 million times (Swatman, 2016). By the end of the year, Pokemon Go had generated 950 million dollars in revenue. Despite its initial success, revenue and downloads declined as initial hype died off. In July, Pokemon Go had 66 million monthly active users, however, in November, that number had fallen to 23 million (Perez, 2016). To reverse this decline, the product team conducted market research to understand why users were leaving the game. While most responses reflected a lack of interest as the reason for not using Pokemon Go, the team uncovered a few issues that were repeatedly offered as to why a user no longer used the application. One issue the team found was the lack of clarity in the design. Users were unsure how to play the game or use in-game features. This sentiment was corroborated by active users expressing the need to look online for directions on how to play. The biggest complaint the team found among former and active users surrounded the tracking feature. The initial design showed nine nearby Pokemon characters, each with a number of footprint icons, one to three, to indicate how close a user was to that specific Pokemon. This design proved to be too much of a strain on performance, and was redesigned to its current state. The current design simply shows nearby Pokemon, with no indicator of distance. If a Pokemon is at a nearby Pokestop, the Pokemon is shown with the display picture of the associated Pokestop. However, these two displays share the same screen, and the Pokestop Pokemon take precedence with respect to space. This causes problems with Pokemon being too far away blocking users from seeing Pokemon that are actually nearby. This paper details the process the design team went through to mitigate these issues, from defining goals and requirements to evaluating and testing usability.

Based on the feedback we received from our research, the team decided on a set of goals to accomplish with this release. The first goal was to make the game more intuitive and efficient for players, both new and experienced. Much of the feedback we received mentioned guessing about where to find certain features or even knowing certain features existed. Along with this, players expressed frustration with having to find this information online. For experienced players, we plan to make small quality-of-life improvements to help players complete routine tasks, such as healing Pokemon. We want to make using the game as seamless as possible, so increased efficiency will increase retention among players who feel that some tasks are cumbersome, thus reducing enjoyment. While the previous goal encompasses most of the work for this release, the most important goal was to fix the tracking feature in Pokemon Go. As previously mentioned, the tracking feature was the main source of frustration among those who completed our survey. The main draw of Pokemon Go is the ability to find and catch Pokemon. The tracker is the primary device that aids in that endeavor. It was imperative that we improve its current design.

From these high-level goals, the team created five requirements to improve Pokemon Go. First, the team wanted to implement new audio and haptic notifications for when Pokemon appeared on a user’s screen. Many of our users play on the go, and these feedback mechanisms allows users to become aware of context changes without having to perpetually watch the screen. Currently, however, we use the same feedback for every Pokemon that spawns, and users tell us they no longer pay attention to this feedback. We have implemented new audio and haptic feedback for when Pokemon spawn that either the user hasn’t caught yet, or the Pokemon is one we categorize as ‘Rare’. This will allow players to play on the go, without the fear of missing out. A second requirement is to make the Pokemon encounter screen more effificent and intuitive. Currently, a small backpack icon sits in the lower right-hand corner of the screen. This opens the items menu, which the user can select different Pokeballs or Berries to use to aid in capturing the Pokemon. This also shows all other items as well, some of which aren’t usable in this screen, and that can be confusing, along with the backpack icon not being clear to new users. For this release, we will be creating two new icons to replace the backpack icon, a Pokeball and a Berry. These icons will open an in-screen menu of just the Pokeballs or Berries. Not only will this increase efficiency, but the icons offer more clarity and do not show unnecessary items. Two more improvements made in this release revolve around battling. Currently a player can use his or her Pokemon to battle against gyms. When selecting a gym, the user must pick six Pokemon. An algorithm-generated list of six is generated by default, but players will need to make changes manually. Players complained that they often needed to change this default team, which requires loading the Pokemon collection screen each time and finding the Pokemon the user wants. This not only increases the time it takes to challenge gyms, but creates a barrier to beginning the battles, which users say keeps them from interacting with gyms at all. To help alleviate this, a new feature was created to allow users to create a default six that will be loaded for all gym battles. Users can still make changes, but fewer changes should be necessary. This also increases recognition for new players coming from the main Pokemon franchise, as players have a team of six Pokemon they choose. Additionally, after battling, users must heal their Pokemon using items. Currently, the only way to heal Pokemon is to select a healing item in the item screen. Users can then use that item to heal their Pokemon, but if they want to use another item (perhaps a stronger one), they must go back to the item screen to select it. For experienced players, this process was cumbersome, both for finding which Pokemon needed healing, and the actual healing process. New players often had trouble figuring out how to heal their Pokemon, even when knowing they needed to perform the task. For this release, we implemented a new system for healing Pokemon, called the Pokemon Center. This new screen will be accessible from the main menu, the Pokemon list screen, as well as when selecting a healing item. This screen will show all Pokemon that need healing, along with all the different items a user can use for this task. When a player selects an item, that item will be locked in and Pokemon selections will be healed with that item. Players can then simply click another item and begin using it, without the need to reload screens. The Pokemon Center name also leverages recognition from the main games, as that is where Pokemon are healed in those games. This helps new players grasp this feature intuitively. Finally, to fix the tracker, the team split the tracker window into two tabs. On one tab, Pokemon that are nearby the user, but not a Pokestop, will be listed in a 3 x 3 grid. The Pokemon will be sorted based on distance from the user, with closest Pokemon in the top-left corner, and furthest Pokemon in the bottom-right. In a separate tab, Pokemon that are near nearby Pokestops will be shown, accompanied with a picture of the associated Pokestop, as it currently is. Splitting the tracker into tabs will prevent Pokestop sightings from removing nearby Pokemon through precedence. Sorting by distance will allow users to actually track Pokemon that are nearby. We feel these enhancements will reduce the number of frustrations experienced by our users, both new and experienced. By not overhauling the design, players will still feel like they are playing the same game, promoting a sense of familiarity that should aid in retention of current users and the reacquisition of former users.

To test these requirements, the team used both the cognitive walkthrough method, as well as traditional empirical testing, with a few adaptations to fit Pokemon Go. After initial design of each requirement was completed, the team engaged in a cognitive walkthrough before the requirement was given to the development team. This allowed the team to mentally step through each phase of a task and discuss if it was accomplishing its stated goal. Few issues were uncovered during these sessions, which allowed the team to devise solutions in a more cost-effective manner. In addition to this pre-development usability testing, the team completed traditional empirical testing with end-users. Because of the mobile nature of Pokemon Go, the team wanted to capture data from users in real-world environments, so we recruited users to provide us with data remotely as well. Users were given tasks and asked to record their screen during the completion of these tasks. Along with task completion, users were given surveys to provide additional feedback of the new features. Team members reviewed recordings to check for number of errors and time-to-completion of each task. This empirical data, along with subjective survey responses, provided the team with great value. The team is already planning enhancements for future releases based on this data, such as increasing the intuitiveness of selecting a default gym team, which while users said they liked the idea, had high errors and time-to-completion almost across the board.

In summary, while Pokemon Go stormed out of the gate, recent declines in monthly active users and revenue prompted the project team to look for solutions. Based on research, the team concluded that increasing the overall intuitiveness and efficiency of the application, along with fixing features such as the tracker, would help retain our current users, as well as attract new and former users. Based on these goals, the team created five requirements for this release: enhanced audible and haptic notification, increased efficiency during Pokemon encounters, increased efficiency and intuitiveness of healing Pokemon, add the ability to create a default team of Pokemon for battling gyms, and increasing the effectiveness of the tracking feature. These requirements were tested both pre-development, using cognitive walkthrough sessions with the team, and post-development, with empirical testing, both in lab and real-world remote. These post-development findings have lead to new requirements slated for future release.

References

Perez, S. (2016, Dec 15). Mario arrives as Pokemon Go peaks, with declining downloads, falling revenue. Retrieved from https://techcrunch.com/2016/12/15/mario-arrives-as-pokemon-go-peaks-with-declining-downloads-falling-revenue/

Swatman, R. (2016, Aug 10). Pokemon Go catches five new world records. Retrieved from http://www.guinnessworldrecords.com/news/2016/8/pokemon-go-catches-five-world-records-439327