

Game Testing

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10. December 2016

1 First Usability Test

In order to test the interface (and gather some initial feedback on the gameplay) an initial round of usability testing were held. During this, participants played the game on a computer, while observed by a test conductor. Many participants had comments about the interface and how information was conveyed. Each of the units' information was not readily enough available. The squad UI in the test version of the game was slim, and two of the five participants never found it. The squad UI at the time was separated into 3 steps. Normally each unit's name and health was shown. The user could then click them to get their class and morale information, and click a button marked "more info" to open the soldier dossier. Many participants wanted squad information, and especially their classes, to be more readily available. The Squad UI was changed based on this feedback to show name, health, morale (as text descriptions) and class (as an icon).

Several players suggested a compass as all directions in the game were given in compass directions. This was added to the upper right corner of the screen. This was also a necessary addition as, because of our hexagonal field, there would be a clear direction for north and south, but east and west would be skewed. The compass would help by showing that true east and west would not be a skew direction, but rather a zigzag motion.

After some changes based on the feedback and some other changes (including making the radio which guides the player more noticeable) a second round of usability testing was held to test the improvements to the interface.

2 The Change to Mobile Format

During the first usability test it was mentioned that the game would fit better as a mobile game. This was further supported throughout the second usability test, and the general design of the game. The mouse was the only interaction element with the game, there were also a few participants (participant #1, 2 and 5) that tried to drag units in the GUI during the squad picking section of the game.

2.1 Mobile Test Format

The mobile test was focused around the necessary GUI changes which had to be done to fit the game for a mobile phone format. The test format included the playtime of roughly 10 minutes which would be followed by a short interview regarding the GUI, and functionality. The focus here would be to locate any problems in the GUI format. Interviews were chosen here because it would make it possible to further inquire in unexpected directions. This also meant that most of the information gained from this test would be qualitative comments.

2.2 Data Analysis

Generally the participants liked the responsiveness of the game on a smartphone. They mentioned it felt better to use a touchscreen to navigate around, rather than using a mouse and never have to use the keyboard. They still mentioned that most of the text was too small and hard to read, this was a larger issue during events with a lot of text. Still we got a lot of feedback on the general look and feel of the game, that it is too unpolished. These include: no feedback or representation of health/morale change in squad, nothing draws the player to the radio, the compass felt redundant.

Most of the comments regarding the errors in the GUI, seemed to be focused around the elements of the design that were implemented to work well on a PC. The initial attempt at a “drag and drop” system, proved intuitive, yet hindered by the surrounding elements. An example of this is in the squad picker UI. Most participants attempted to scroll the list of potential squad members, only to drag a single squad member up and down the screen instead. This stemmed from the fact that on PC, scrolling could be done with the mouse wheel, and therefore selection didn’t interfere with scrolling.

As with the scrollbar in squad selection, a recurring complaint was the size of UI elements. In several places, mostly around the Dossier, the UI was found to be small and hard to hit on the touch-screen, resulting in examples of players repeatedly tapping the same spot to try and hit the buttons on screen.

2.3 Game Corrections

A lot of the issues with the GUI can be solved with some clear improvements. First of making sure the size of UI elements are based on the size of the device screen as well as the number of pixels, to ensure every element is readable as well as “tappable”. Adding a more polished drag and drop functionality seems to be necessary as the one currently implemented didn’t seem intuitive nor functional. Due to this the drag and drop functionality in the squad picker has been disabled for now as it lead to issues with scrolling. An interesting improvement would for example be to drag soldiers from the sidebar when assigning them to solve an event, instead of simply choosing them from a drop-down list.

Since the game is text heavy, a key change would also be to ensure comfortable text-size and well formatted text areas, to allow for scrolling or breaking

up the text in pages. Another important improvement would be the addition of sound cues and animations, to bring attention to important happenings in the UI, such as a soldier taking damage. This would help bring attention to the important systems of the game that the player needs to understand, in order to play the game well.

3 Play Testing

3.1 Test Format

The playtest consisted of a short 10 minute playthrough, followed by a questionnaire. The questionnaire would be focused on two sets. The first set focusing on mostly quantitative usability data regarding experience with the Graphical User Interface. The second set focused on the play experience, here focusing on the weight of units in the game, exploration and event handling. Most of this data was qualitative, revolving mostly around written comments from the participants. Next to the questionnaire, observational data was also gathered. This data was mostly focused around usability data for the GUI, but some play test data was also gathered, here in form of player behaviour and choices.

3.2 Data Results

The test was conducted at ITU, and following collected data, through Google Analysis, from a total of twelve participants, ranging from the age of 18-26. The majority of the test participants were fellow students. The following sections will contain the results from every question relating to user experience from the questionnaire.

To which degree did you feel the squad picking impacting your experience?

Most people ($n = 8$) did not feel their play experiences was impacted by the squad picking, while the rest had varying degrees of impact. Three people wrote that they just picked random soldiers as they had no idea what difference it would make, and they did not feel any impact as results of their selection of soldier for the tasks. One participant mentioned that the backgrounds seemed like “a wall of text” and thus too much to read for every soldier. It was suggested that the text relevant to the gameplay should be highlighted.

To which degree did you feel like there were something to explore?

There were few negative responses to this question ($n = 2$). Among the rest there were four positive responses. Comments were regarding the vast map affording replayability and the radio affecting the feeling of vastness. However, a participant mentioned that they experienced the sense of senseless wandering

when there were no scenarios active. Besides these comments, there were quite a few participants that misunderstood the question, and answering the question with: “I had a pretty clear understanding of the battlefield”, so it is hard to conclude anything from these.

To which degree did you feel attached to your soldiers? And why?

The vast majority of the participants did not feel any attachment to the soldiers (n = 9), argued that there were too much text about every soldier to learn and their names were too generic. A participant suggested that there should be more emphasis on the importance of the soldiers background and personalities. Among the positive responses, a participant wrote that they felt attachment to the soldiers when he discovered their background, while another one only felt attached in the beginning but did not consider who to choose for the events. So only a few felt strong attachment.

To which degree did you feel your choices of units during events were important?

Overall most felt that their choice of unit mattered, but they did not feel that they had enough feedback to confirm the feeling, arguing that they would have to replay the game to get a deeper understanding of the reason behind choices. It was again mentioned that it was hard to discern the soldiers skills and their relevance for the event, so two participant constantly chose a random. Another participant did try to “save” the hurt soldiers, by choosing the least wounded soldier for the events.

Did you feel like your choices mattered?

Half of the participants did not feel that their choices matter mainly due to lacking indication of what the consequences of their choices were, and no indication of the winning/losing status made them indifferent about the outcome. A participant who did feel like his/her choice mattered wrote that the important choices were who to sacrifice and how to move on from there.

To which degree were the results of events logical?

The general opinion from the test participants were that the events seems logical, however there were some comments. A participant found the results too safe, and given the context it was not logical for a war zone to feel safe. It was also mentioned that there were too many occurrences of the same event, and that the winning condition felt too weak and not satisfactory. Finally there were a participant who did not understand the game at all.

Further comments?

From the further comments, it appeared that most of the people enjoyed the game, and especially the interface and the aesthetics, however it is lacking content. Several participants mentions missing sound and asking for feedback from the events to make coherence between the choice and results.

3.3 Corrections

The comments about the lack of soldier choice importance could be addressed by adding bonuses to certain events if a player has units with certain expertise's (for instance having a medic could help when someone got bit by a snake, or a demolition expert could help when navigating a minefield). This was not currently implemented, but would help on these concerns. It could also make each unit feel more important as losing a medic or sharpshooter could quickly leave the player vulnerable to certain events. This effect of their skills could also help make each soldier feel more important. Another thing which was mentioned a few times was that the units' status (their health or morale) didn't seem to impact anything. Like with giving them different skills, giving penalties for low morale or health during some events could help emphasise the characters' statuses and make keeping them healthy, physically and mentally, an important challenge to master. As the game is, the character's' morale status is only relevant when it reaches 0, at which point they start growing violent and suicidal. Several test participants didn't notice that their unit's status deteriorated at all, so perhaps more clearly communicating this would be a step forwards as well. One, very detailed, comment discussed time in our game, something that isn't a factor, but which several events mention as a negative. While most event that "waste time" actually do lead to a decrease in morale across the squad, the mention of time passing caused the player to feel that time somehow might be a factor, despite not being on the interface in any other way and therefore being hard to take into any form of consideration. This confusion about game mechanics should also be mitigated with more precise descriptions of what the consequences of choices are. Overall, the interaction between soldiers and events, how they affect each other and how the events' outcomes translates mechanically into consequences for the soldiers need to be much more clearly communicated and impactful.

Due to the text-heavy nature of the game, it might also be good to include text highlights to show which information is relevant to the game, as suggested by one of our participants. This would give a quick overview for the players who don't enjoy the long flavor-texts, but only wants to see gameplay relevant information.

The feedback we got on the exploration was, again, a mixed bag, and this is another area we would like to improve on. While some people felt there was enough to explore, we believe this was mainly because of the low playtime (around 10 minutes) the participants tried the game for. Right now there isn't anything to find in the map except events and the tiles needed to progress. Adding secondary objectives to the game is planned for future development. Secondary objectives could be used to turn the game into a rogue-like experience

where the player progresses their troops over several missions and unlocks new classes for them or other benefits to help

4 Conclusion

During the design process of the game, several tests were made to improve the prototype. Most of these tests were designed with a specific focus in mind, here mostly with focus on either play experience or the GUI functionality.

During the usability tests several corrections were found to be necessary. First a drag and drop system seemed to be lacking for the squad picking UI, as this was a functionality that several participants tried. Secondly the information gained regarding units was found to be too hidden from the players due to the design of the ingame unit UI. It was also found early on that the prototype may be a better fit for a mobile phone format instead of a computer format. Due to this specifically designed usability tests were made to test the newly fit GUI for the mobile format. These tests showed mostly that the GUI's were still lacking, primarily due to inappropriate GUI and text sizes, but it was also found that certain functionalities which were previously lacking now was not fitting anymore. An example of this being the functionality of dragging units. Most of these problems had simple corrections, though the unit dragging functionality was found to be something that was lacking further design work.

During the play tests the results clearly showed that the importance of the ingame units were lacking. Several corrections were theorized for this, here mainly focusing on further implementation of soldier importance for events. Aside from soldier importance, several other systems were found to be lacking. For the morale system, it was found that this was not having a large enough effect on play experience, and for the most part the effect that it did have, was seemingly mostly invisible. As for ingame exploration a part of the participants found exploration sufficient, though this was mostly attributed to the play session length.

In the end the tests found to a higher degree that both UI and game experience was lacking, and while most of this was found to be easily solvable, a larger part of the game was found to be needing of further work and design.