

Searcher Test Plan

GBDA 301

Gamification of Mental Health Improvements in Aboriginal Communities in Northern Ontario

06/11/2017
"Searcher"

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1. Introduction

1.1. Purpose

The purpose of this test plan is to describe the coverage, methodology, and framework that will be used to gage the quality and completion at each stage of development.

1.2. Project Overview

The goal of this project is to create and develop a comprehensive solution to mental health issues affecting Aboriginal Communities in Northern Ontario through the introduction of gamification. By introducing methods from personal experience, archival research, and content from the GBDA 301 course we hope to create a comprehensive solution through the use of a videogame.

This videogame named “Searcher” aims to educate children in these communities about: belongingness, community, and Aboriginal culture in Canada. The goal is to educate through non-obtrusive measures by offering a strong, story based game that will allow children to educate themselves without feeling they are being forced to learn the material.

2. Test Strategy

2.1. Test Overview & Objectives

The goal of the tests outlined later in this document will verify that the *Searcher* are up to standards acceptable by majority stakeholders. Tests will ensure that each component of the game is of quality work to ensure that the desired experience laid out in the Design Document is met, but also to ensure that it is an effective and acceptable solution for all people to play.

That being said the main focus of the tests is to make sure that the game runs properly on the hardware chosen, but most importantly, to ensure that the game remains respectful of Aboriginal people, their culture, and stories. Ensuring that the stories come directly from approved Aboriginal sources for stories as well as people in these communities.

The tests that will be conducted will include, but is not limited to:

- Design;
- Narrative;
- Gameplay;
- Compliance;
- Functionality;
- And compatibility.

2.2. Test Assumptions

2.2.1. Key Assumptions

- The children in these communities will have access to the hardware chosen to develop the game for (e.g. personal computer, PlayStation, Xbox)

2.2.2. General Assumptions

- Initial builds of the game will be tested as they are updated.
- For each update, the Lead Tester will introduce some new testers so that a diverse range of opinions fresh, unbiased perspectives can be recorded and reviewed to make any changes necessary.
- The testers will have access to new updates in a secure environment as they are developed.
- Any and all defects recorded will come with a screenshot in JPEG format and sent to the lead tester for distribution amongst the rest of the Team.
- Class A and B bugs that are discovered and fixed will require Regression testing will be carried out by the Dev. Team and the testers.
- Preparations for tests will be carried out by the Dev. Team and Lead Tester
- Defects and their solutions will be recorded and tracked in a document available to all Team members.
- Project team will have the necessary experience and knowledge of the system, game, responsibilities, and testing procedure, or receive training
- The testers and team will know how to use the classification system for identifying bugs (Class A-C) or receive training.
 - Class A: Critical Bugs that prevent the game from being played such as corrupt data and crashing.
 - Class B: Problems that require attention but do not stop the game from being playable, as many B Class bugs as possible need to be identified and fixed before release.
 - Class C: Small obscure issues that are more of a recommendation instead of a bug that requires attention. These will be tested if they offer a change that the team determines will be beneficial for the final build.
- Contact info for team leads and key members of the project will be readily available to each member working on the project.

2.3. Test Principles

- All departments will provide support to the testers in order to increase cross departmental understanding and communication.
- Each new test will build upon previously conducted tests and the findings, comments, and suggestions recorded from them to avoid redundancy and duplication

- If there have been no new changes to a particular area of the game since the last test, it will be made common knowledge to the testers beforehand so that there are no wasted resources commenting on redundancy and/or unnecessary logs.
- Testing will be repeatable, ethical, and have the ability to change and be flexible if need be.

2.4. Scope of Testing

2.4.1. Exploratory

The purpose of this testing will be to ensure that all major bugs and/or defects are fixed or patched before other testing can be initiated. The level or portion of the game being examined will be explored by the testers in order to ensure that the section of the game being tested is playable. This will be carried out at the beginning each testing cycle in order to gauge the game is playable.

2.4.2. Functional Testing

The purpose of this testing will be to find any additional bugs or defects in the level or portion of the game being examined. The main goal of this is to identify issues with the user interface, game mechanics, and asset integrity. This form of testing will be completed after the initial exploratory testing has been conducted to ensure the game is actually playable before looking at the gameplay itself.

2.4.3. Regression Testing

The purpose of this testing is to ensure that once defects and bugs have been identified, they are properly resolved. After the game has been patched, the testers and the Dev. Team should both play the portion of the game where the defect was identified to ensure that the solution has in fact worked.

This form of testing will take place after the functional testing has been completed. This allows for the testers and the Dev. Team to iterate and fix the majority of defects before continuing on to the next section of the game.

2.4.4. Compatibility Testing

Compatibility testing will be completed by the Dev. Team in order to ensure the current build of the game is compatible with the chosen hardware or platform.

This will be done early on and monitored throughout development, however after it has been completed it does not require as much attention as the other tests. This is because in order to complete the other tests the current build of the game needs to be compatible with the chosen hardware or platform, otherwise the game will not be playable.

2.4.5. Compliance Testing

The purpose of this test is to make sure that the hardware and the software comply with the licenses of console platforms. These tests will be done to ensure that the chosen platform's requirements are met before release of the game. This test will be extremely important because violations of these checklists set forth by the manufacturer can result in the game being rejected for publication, additional costs, and additional time for development. Some of the specifications involved in this round of testing include handling memory, handling of trademarked material (e.g. the Nintendo logo and its likeness), and formatting of error messages.

The more technical and hardware specific requirements are outside the scope of the game testers duties. This testing cycle will be continuous and acts more of a guideline for everyone involved in the projects development.

Note that Soak testing and Load testing are part of Compliance testing. These two tests are more for the development team to test the limitations of the game and its interactions with the hardware so that they can determine what is and is not possible to include in the final build.

2.4.6. Narrative and Integrity Testing

The purpose of this test is to ensure that the integrity of the story is kept and the depiction of the Aboriginal Culture and stories are as accurate as possible. This form of testing will be unique to this project due to the sensitive subject matter being addressed. As the narrative and other additional story elements are being developed they should be presented to a board of representatives from the Native communities to make sure it is acceptable.

The goal of the project is to get the parents and elders in these communities to share as much knowledge and stories as they willing to in order to keep the stories and references as accurate and respectful as possible.

Getting the parents and elders involved in the development of the project is essential because they will be able to offer their questions and concerns as well as their well of cultural information. These stakeholders are extremely important and will be what the narrative will be based off of. That being said editors and members of the Northern Communities should work side-by-side during the development of the narrative in order to test the integrity of the narrative and project as a whole.

This form of testing will be ongoing alongside the Compliance tests and will be one of the most critical testing processes for the project.

3. Execution Strategy

3.1. Entry & Exit Criteria

The entry criteria to begin testing a specific portion of the game should relate to the severity of the bugs. Class A and B bugs that hinder the progress of the game or question the integrity of it should be dealt with and tested. Class C bugs should only be dealt with if they are noticeable and can be fixed

3.2. Testing Cycles

There should be a total of two complete test cycles, one to determine any Class A bugs such as crashing, corrupt data, or unpassable levels. The second round of testing should be to determine any remaining Class A bugs but also solve as many Class B bugs as possible. These Class B bugs are typically bugs that require immediate attention but do not keep the game from being playable.

As the cycles are ongoing, regression testing will take place after each round of functional testing. In addition, Compliance testing will take place through the duration of the project alongside the other test. This means that if delays occur in the two main cycles the testers can focus on the Compliance testing and Narrative and Integrity Testing while the Dev. Team can test the Compatibility as well as the more technical side of Compliance testing.

4. Test Management

4.1. Defect Identification & Tracking

Any and all Identified issues with the game should be logged in a central location that is accessible to all team members. This log should include the date the issue was identified, the current state of the issue (e.g. under review, patch proposed/developed, secondary test, approved/denied), the dates each update was made, and whether or not it has been solved. Each member involved in this process will be required to sign off on the changes in order to keep the integrity and timeline in order. Each team lead should monitor the log and make sure that each issue is resolved within a reasonable timeline that does not push back other deliverables.