# Heuristic Evaluation

## Heuristics (Nielson: <http://www.nngroup.com/articles/ten-usability-heuristics/>)

1. **Visibility of system status**
   * The system should always keep users informed about what is going on, through appropriate feedback within reasonable time.
2. **Match between system and the real world**
   * The system should speak the users' language, with words, phrases and concepts familiar to the user, rather than system-oriented terms. Follow real-world conventions, making information appear in a natural and logical order.
3. **User control and freedom**
   * Users often choose system functions by mistake and will need a clearly marked "emergency exit" to leave the unwanted state without having to go through an extended dialogue. Support undo and redo.
4. **Consistency and standards**
   * Users should not have to wonder whether different words, situations, or actions mean the same thing. Follow platform conventions.
5. **Error prevention**
   * Even better than good error messages is a careful design which prevents a problem from occurring in the first place. Either eliminate error-prone conditions or check for them and present users with a confirmation option before they commit to the action.
6. **Recognition rather than recall**
   * Minimize the user's memory load by making objects, actions, and options visible. The user should not have to remember information from one part of the dialogue to another. Instructions for use of the system should be visible or easily retrievable whenever appropriate.
7. **Flexibility and efficiency of use**
   * Accelerators -- unseen by the novice user -- may often speed up the interaction for the expert user such that the system can cater to both inexperienced and experienced users. Allow users to tailor frequent actions.
8. **Aesthetic and minimalist design**
   * Dialogues should not contain information which is irrelevant or rarely needed. Every extra unit of information in a dialogue competes with the relevant units of information and diminishes their relative visibility.
9. **Help users recognize, diagnose, and recover from errors**
   * Error messages should be expressed in plain language (no codes), precisely indicate the problem, and constructively suggest a solution.
10. **Help and documentation**
    * Even though it is better if the system can be used without documentation, it may be necessary to provide help and documentation. Any such information should be easy to search, focused on the user's task, list concrete steps to be carried out, and not be too large.

# Heuristic Evaluation

## Severity Ratings (Nielson: http://www.nngroup.com/articles/how-to-rate-the-severity-of-usability-problems/)

The severity of a usability problem is a combination of three factors:

* The **frequency**with which the problem occurs: Is it common or rare?
* The **impact**of the problem if it occurs: Will it be easy or difficult for the users to overcome?
* The **persistence**of the problem: Is it a one-time problem that users can overcome once they know about it or will users repeatedly be bothered by the problem?

The following 0 to 4 rating scale can be used to rate the severity of usability problems:

0 = **I don't agree** that this is a usability problem at all

1 = **Cosmetic problem only**: need not be fixed unless extra time is available on project

2 = **Minor usability problem**: fixing this should be given low priority

3 = **Major usability problem**: important to fix, so should be given high priority

4 = **Usability catastrophe**: imperative to fix this before product can be released

# Heuristic Evaluation

Iteration one – 27/3/2023

Name: Jake Williams\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Project Title: Group game - Maze game\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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| --- | --- | --- | --- | --- | --- | --- |
| **Interface** | **Issue** | **Heuristic(s)** | **F**requency 0 (rare) to 4 (common) | **I**mpact 0 (easy) to difficult (4) | **P**ersistence 0 (once) to 4 (repeated) | **Severity** = Sum Total of F+I+P /3 |
| Menu/GUI | There is no menu option, either in the top left/right which enables you to quit, pause or manage the settings of the game. | User control and freedom | 4 | 3 | 4 | 11 |
| Menu/GUI | Must pick a level difficulty, go back and then pick a character or visa-versa before the game begins. This is long and time consuming. | Flexibility and efficiency of use | 2 | 2 | 3 | 7 |
| Menu/GUI/Game | The game is very bland, all the colours are only black and white, the aesthetic isn’t appealing. | Aesthetic and minimalistic design | 4 | 2 | 4 | 10 |
| Game | It would be good to be able to have some explanation of the game before you start, how you win and how you lose for example. | Help and documentation | 3 | 3 | 2 | 8 |
| Game | When you get to the end of the game it does not say you have won – no winning functionality available yet. | User control and freedom | 4 | 4 | 4 | 12 |
| Menu/GUI | Doesn’t say loading anywhere, no functionality between different menu options. | Visibility of system status | 3 | 1 | 2 | 6 |
| Game | When you go into a ghost you do not die or loose a life – there is no functionality | User control and freedom | 3 | 4 | 3 | 10 |
| Menu/GUI | There is not a detailed enough explanation on how to be able to navigate through the GUI. | Help and documentation. | 3 | 2 | 3 | 8 |