#### Heuristic Evaluation

TC1: Clark, Sabian, Steven; Everyone’s Into Techno

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| **Principle** | **Meaning** | **Evaluation** |
| **Visibility of System Status** | The system should always keep users informed about what is happening, using appropriate feedback and within reasonable time. | Good showing of what’s happening to users e.g. Loading screen, correct answer, wrong answer, game overs, life lost. |
| **User Control** | 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. | Has good user control, visible buttons on the menu (play, help, quit). |
| **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. | Minimal room for error, spacing was used wisely, so that the users would be able to do tasks successfully. |

#### Heuristic Evaluation

TC2: Izzy, Mikaera, Warahi

Visibility of system status (Bad): Attempts remaining, letters that are correct and incorrect are not shown.

Visibility of system status (Good): The blanks of the word to guess can be seen on the keyboard screen.

Cool Maths Game - Hangman

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| **Principle** | **Meaning** | **Evaluation** |
| **Visibility of System Status** | The users need to know what's happening with the system. | The user can get a good understanding on what's happening by the text that's on the buttons but once starting the game it’s very hard to figure out what the user has to do. |
| **User Control and Freedom** | Giving users the ability of freedom of actions and navigation. | Users have the ability to navigate around the game with total freedom. The main control feature is the difficulty setting (Easy, Medium or Hard). |
| **Flexibility and Efficiency of use** | Providing flexibility between different types of users, i.e novice, moderate or advanced. | Some novice users might have trouble playing the game if they've never played before and might be unsure about what they're doing. This is due to lack of explanation about In-game mechanics.  For someone who is particularly good with hangman would have a fair idea of what's going on. In terms of flexibility, users have a difficulty setting which is ideal for beginners/ learners, moderate and advanced players. |
| **Error Prevention** | Preventing human error creates fulfillment for us users. | There are no errors that can occur when a user is playing or navigating through the game. |

#### Heuristic Evaluation

A1 Sam & Hitesh

Evaluated by A6

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| **Principle** | **Evaluation** | **Resolution** |
| Visibility of system status | * Images/graphical techniques missing from home screen * There’s no separate option for the scores to display while playing the game. | * Images, even in the background help keep it visually engaging. * Active score tracking would help keep the user playing against their scores. |
| User control | * Keypad input was a novel idea, but not user friendly. * Adding the “continue” option was a wise choice. To start the game again from where you left off. | * A different scrolling form of letter input (or even voice) might be easier than multiple button presses and multiple screens. * Perhaps more options like sound control / font size / colors and themes. |
| Comments | * Good difficulty settings. * Easy to understand the whole paper prototype. |  |

#### Heuristic Evaluation A2

A2 Gustav and Luke (Evaluated by Caleb and Veronica)

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| **Principle** | **Meaning** | **Evaluation** |
| **Visibility of System Status** |  | - Key info such as Difficulties/play/game buttons are highlighted appropriately throughout design.  -Easy to navigate.  -A few buttons are untitled with unknown function. |
| **User Control and Freedom** |  | -There is no clear mark of an emergency exit inside of the game itself to go back to the home page or reset progress.  -Choice of game difficulties expands user freedom. |
| **Flexibility and Efficiency of use** |  | -There is no need for a lot of efficiency such as adding a shortcut as the game is already very simplistic.  - Displayed lives lets the user know if they can make any more mistakes before failing the game. |

#### Heuristic Evaluation

A3 Michael and William

Error Prevention (good) Keyboard uses texting keyboard to prevention accidently typing in the wrong letter while guessing

User Control (Good): Can close out of a game halfway through a game. Can easily reset/play again after a game has finished.

Visibility of system status (Good): The blanks of the word you need to fill is shown on the keyboard screen. This is the bare minimum of any Hangman game.

Visibility of system status (Bad): list of correct and incorrect letters is not shown. Remaining attempts are not shown. This is important information that must always be shown to the user.

User Control (Bad): Back and close button are both on the keyboard screen when back does the same thing. There is no reason for two buttons to do the same thing.

#### Heuristic Evaluation

A4 Royce

Evaluated by A1

Visibility of System status: Live counter in game allows for users to be informed of how many lives are remaining | Question mark hyperlink indicates the sign of help. | Gear wheel hyperlink indicates an option to change layout.

User Control: Back buttons are located on each window of the game allowing users to return back to the previous window. | Samsung gear used for selecting alphabets in game.

Visibility of system status (Bad): Attempts remaining, letters that are correct and incorrect are not shown.

Visibility of system status (Good): The blanks of the word to guess can be seen on the keyboard screen.

#### Heuristic Evaluation

A5 Veronica & Caleb

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| principal | comments |  |
| Visibility | main menu: title is clearly visible  instructions page: no title  game page: lives are clearly visible and there is plenty of room to display all the hearts, “(lives)” does not need to be displayed and could possibly be use to display other info |  |
| User control | main menu: difficulties, play button, guide and sound are all easily accessible  instructions page: there is a (?) button in the instructions page that doesn’t appear to lead anywhere  game page: keyboard is too small, there is no way to quit the game. |  |

#### Heuristic Evaluation

A6 Yash and Chris

Screen 1 - Good design, has a good selection of information but not inherently clear how to begin after difficulty selection.

Screen 2 - Settings screen is well laid out with a good selection of options but having options here makes it less aprant to the user then in the main menu.

Screen 3 - Not obvious what hint box is without a way to find out on the screen. Scrolling for letter selection is a good idea, maybe think of other ordering like vowels first. Home button allows a user to back out for error prevention.

The overall design looks good with good ideas. Main issues relate to user control with not being obvious what to do in some areas without the notes.