# VoxSpell User Manual

## Version 1.0

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Hunter Bao

# Contents

# 1 Introduction

Welcome to the user manual for the VoxSpell spelling aid application. It is an application aimed at improving the spelling of children.

This manual will show you how to install the required programs to start the application, and then the features of the application.

# 2 Getting Started

## 2.1 Installing Required Packages

This program requires the following packages to be able to run on Linux

- Festival text to speech
- FFmpeg
- VLC media player
- Java Version 8

To install these, open the terminal on Linux and type the following commands

- `sudo apt-get install festival`
- `sudo apt-get install ffmpeg`
- `sudo apt-get install vlc browser-plugin-vlc`
- `sudo apt-get install oracle-java8-installer`

Once you have installed these four packages the VoxSpell application should be able to be run without any problems.

## 2.2 Starting the Application

Extract the ZIP file to the folder that you wish to have the application in, the ZIP file contains all the files required for the program to work and also the VoxSpell.jar file used to start the application.

To start the application, Java 1.8 is required. Navigate to /usr/lib/jvm/ and find a folder whose name begins with "jdk1.8" and open that folder and navigate to the bin directory. Inside this bin directory will be a program called "java". Copy this classpath and navigate back to the directory that you extracted the VoxSpell.jar file into, and then call java to start the application.

One example of a call used to start the application is

```
/usr/lib/jvm/jdk1.8.0_91/bin/java -jar VoxSpell.jar
```
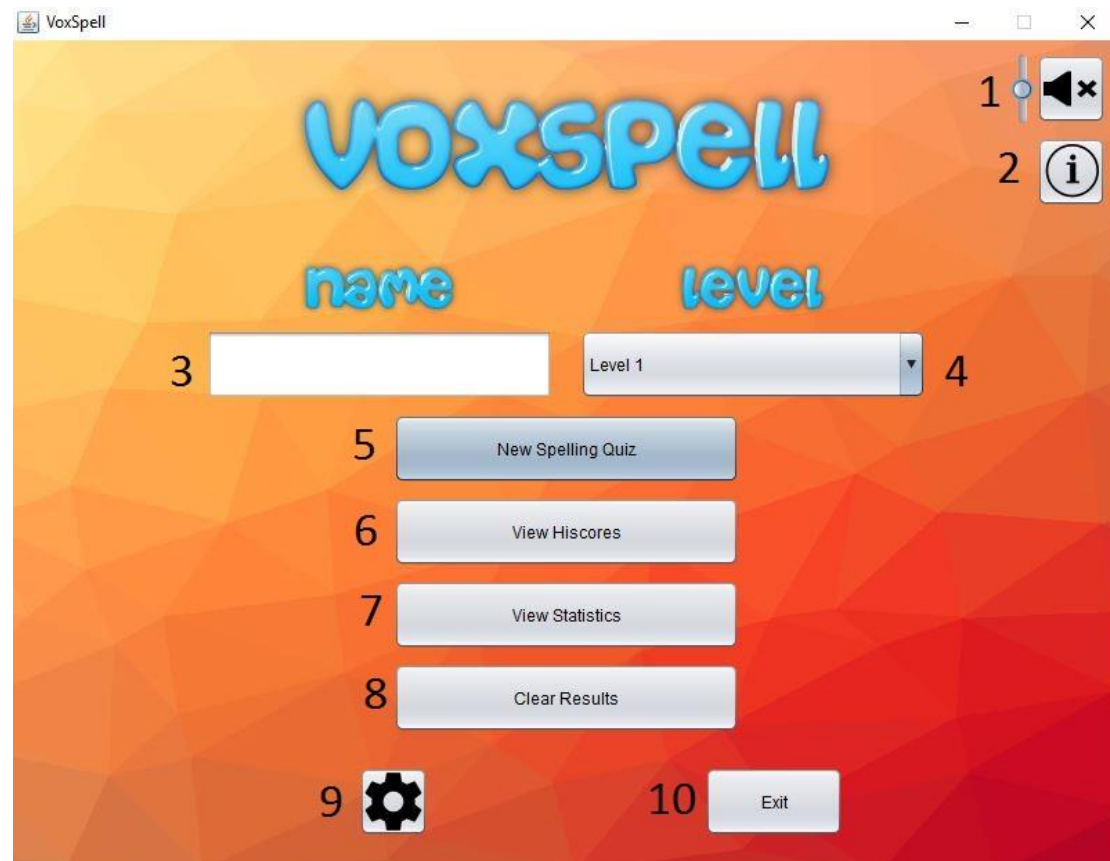
Once you have started the application, the home screen should look as shown
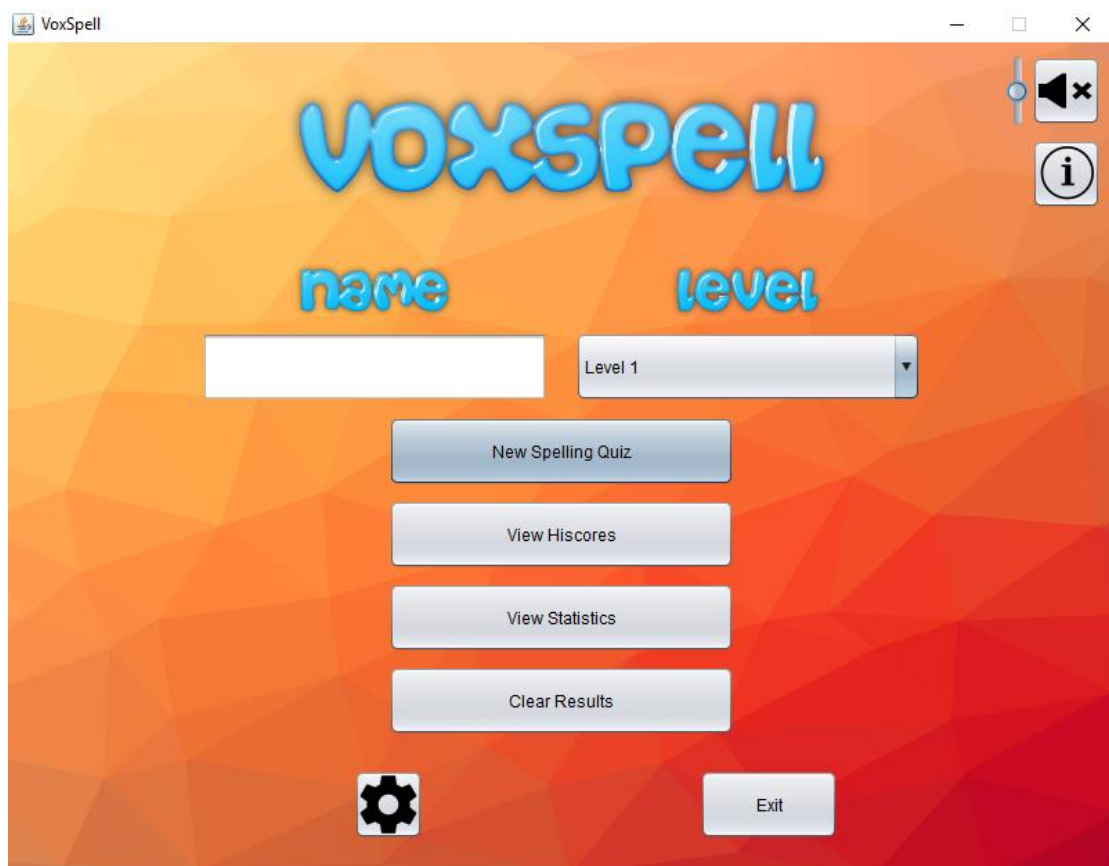
# 3 Application Features

## 3.1 Main Menu

The features of the main menu are listed as shown



1. This is the volume control for the background music. Pressing the button will toggle the background music on and off, and sliding the slider will change the volume of the background music.
2. This is the help button, pressing it will open the user manual to show the user how to use the application
3. This is the name input field; the user should input their name into this before starting the quiz. The name must be between 1 and 15 characters long.
4. This is the level select box. The user selects which level of the current wordlist that they want to start a quiz at, and then when they start a new quiz, they will begin at the chosen level.
5. This is the button used to start a spelling quiz. It uses the name supplied at #3 and the level supplied at #4.
6. This is the button used to display the top 5 high scores of all time in a table view.
7. This is the button used to display the statistics of past quizzes.
8. This is the button used to reset all past high scores and statistics.
9. This button is used to change the voice and wordlist settings.
10. This button will exit the application.

## 3.2 Settings

Upon clicking button #9 in the main menu, the settings menu will be shown.
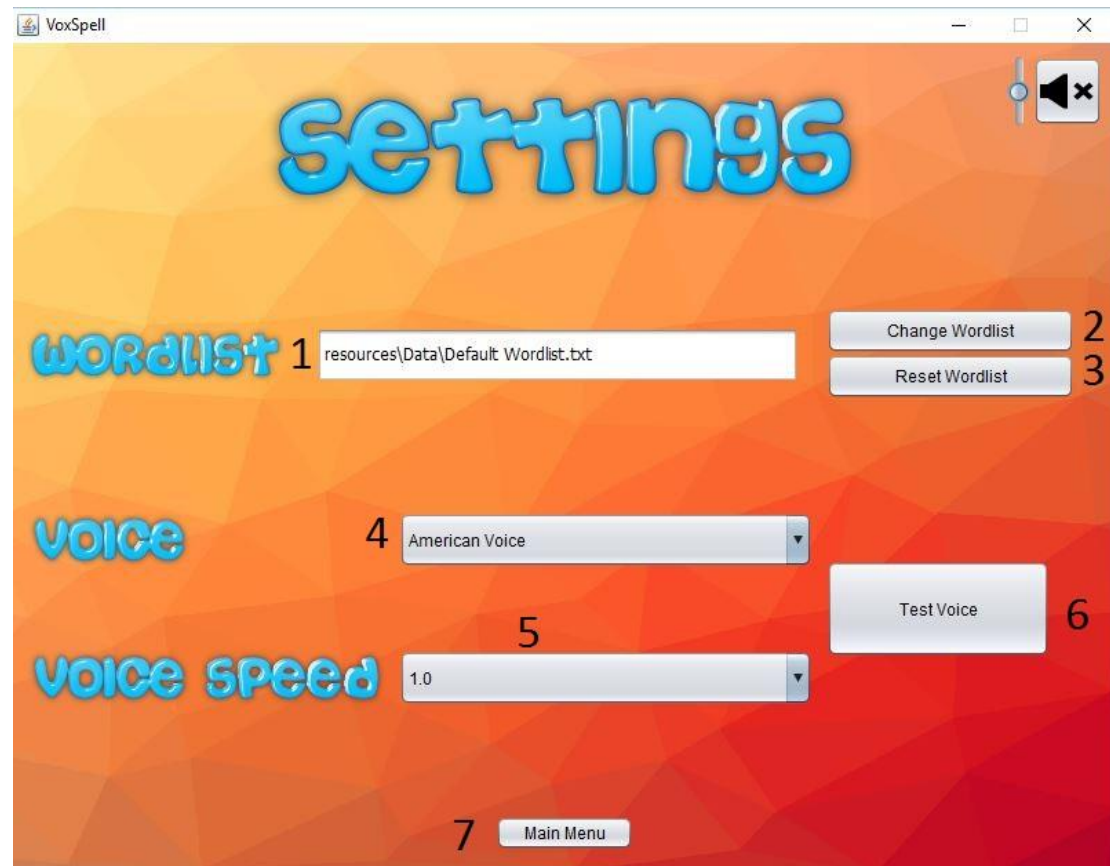


1. This field shows the path to the currently selected wordlist to be used.
2. This button allows the user to select a different wordlist file to use for future quizzes.
3. This button resets the wordlist to be used to the default one.
4. This box allows the user to choose one of three voices to be used as the voice in the quiz:
   a. American Voice
   b. British Voice
   c. New Zealand Voice
5. This box allows the user to choose the text to speech speed that the voice speaks at during a quiz, between 0.5x and 2x speed.
6. This button allows the user to hear a sample of the voice that will be used in the quiz.
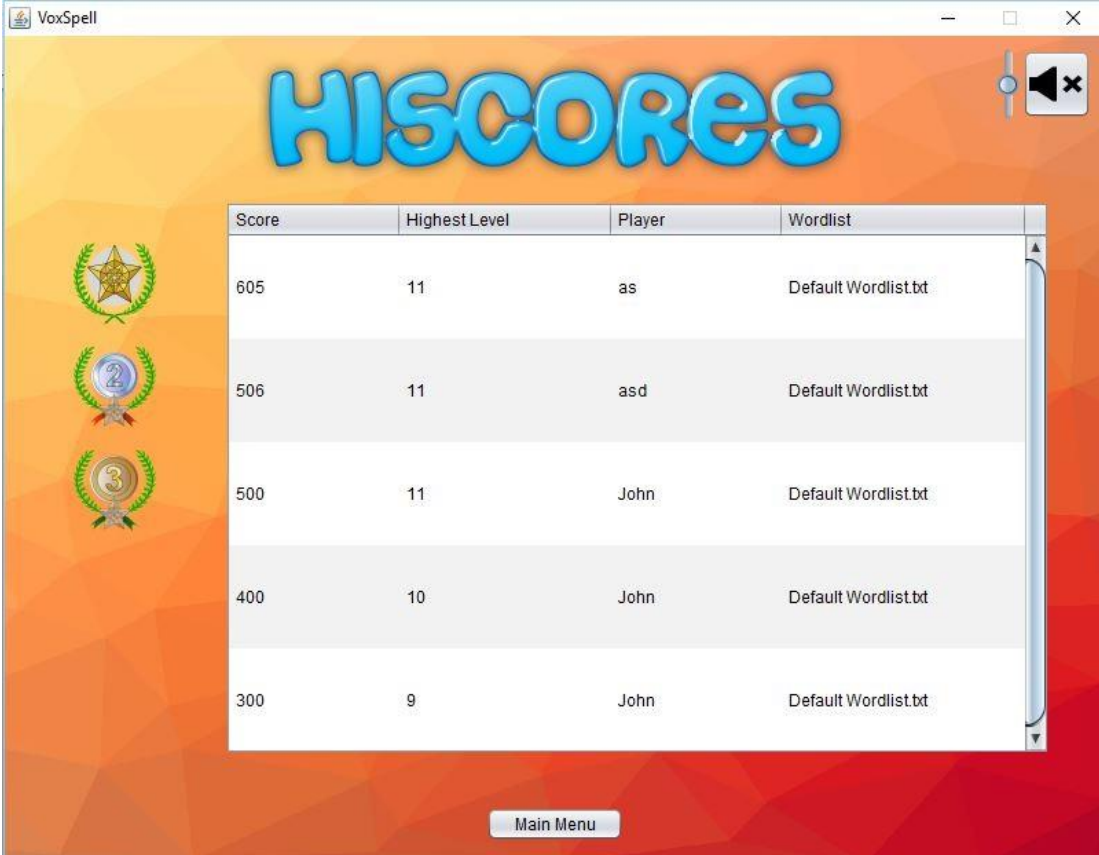7. This button returns the user to the main menu.

### 3.2.1 Wordlist Requirements

The wordlist file has the following requirements:

- Must be a .txt file
- Must be smaller than 10MB
- Must start each level with a "%Level " followed by the level number
- Must start from level 1 and increase in ascending order by 1 each time
- Words must be stored one per line after its corresponding level header
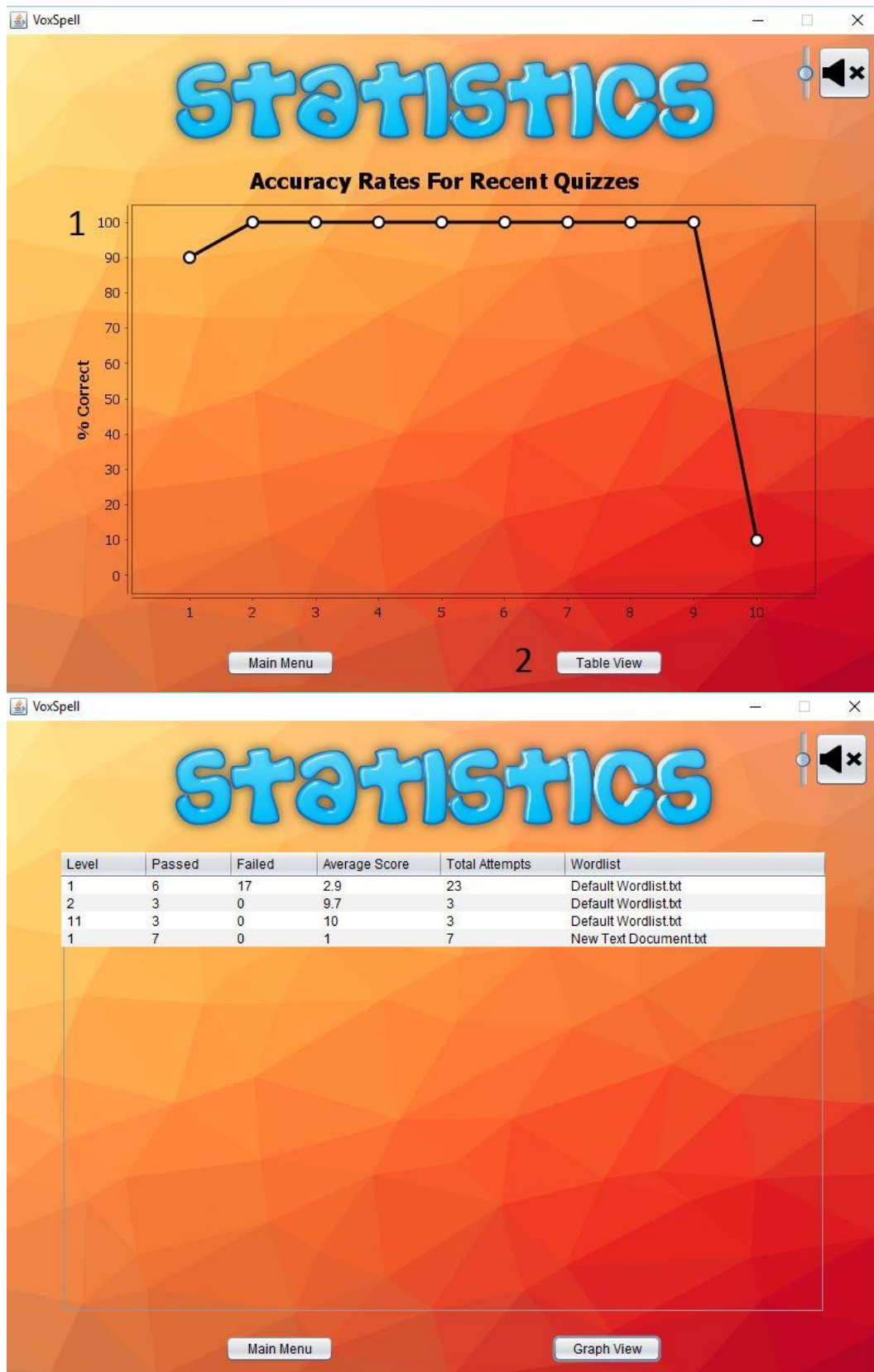- There must be at least 1 word per level

## 3.3 Hiscores

This screen shows the top 5 all-time high scores scored by other players, showing the player's score, highest level achieved, name, and the wordlist that they used to achieve the score. The rankings are sorted by score, and then by the earliest to latest.

## 3.4 Statistics

The statistics menu has two views to show the statistics, a graph view and a table view.



| Level | Passed | Failed | Average Score | Total Attempts | Wordlist |
|-------|--------|--------|---------------|----------------|-------------------------|
| 1 | 6 | 17 | 2.9 | 23 | Default Wordlist.txt |
| 2 | 3 | 0 | 9.7 | 3 | Default Wordlist.txt |
| 11 | 3 | 0 | 10 | 3 | Default Wordlist.txt |
| 1 | 7 | 0 | 1 | 7 | New Text Document.txt |

Depending on what button #2 is pressed, the view at #1 will change to that view.

- The graph view is the default view and shows the percentage of words correct the 10 most recent quizzes, or less if there have not been 10 quizzes yet.
- The table view shows the number of times each level in each wordlist has been passed and failed, and also the average scores for each level.

## 3.5 Quiz

The quiz screen is shown here



The information that is contains is:

1. The player name
2. The wordlist name
3. The level of the quiz
4. The word number
5. The number of times during that quiz that the player can hear a repeat of a word, 5 more repeats are given every time that the player goes to the next level or restarts a level, up to a maximum of 10
6. The input where the player types their attempt at a word
7. The button that the player pressed to submit their attempt, they can also press enter
8. This will cause the speaker to say the word again

9. Pressing this causes #10 to appear
10. This shows the number of letters in the word and any punctuation in the word
11. This shows the multiplier that the player has on their score for any correct word, it is reset when the player presses hint or gets a word wrong.
12. This shows the player's current score
13. This shows the player's all-time high score
14. This allows the player to restart a level once they finish that level
15. This allows the player to move on to the next level of the wordlist if it exists after they pass a level
16. This allows the player to play a video reward
17. This allows the player to listen to a music reward

In order to activate button #16 and #17, the user must pass a level, which means that they must score more than 0 and must get no more than 1 word incorrect within two attempts.

### 3.5.1 Video Reward

When the user clicks to go to the video reward, the screen will change to the following and display a video. The video is created dynamically using FFmpeg when the user starts the level and has cheering sounds and animation to congratulate the player on passing a level.
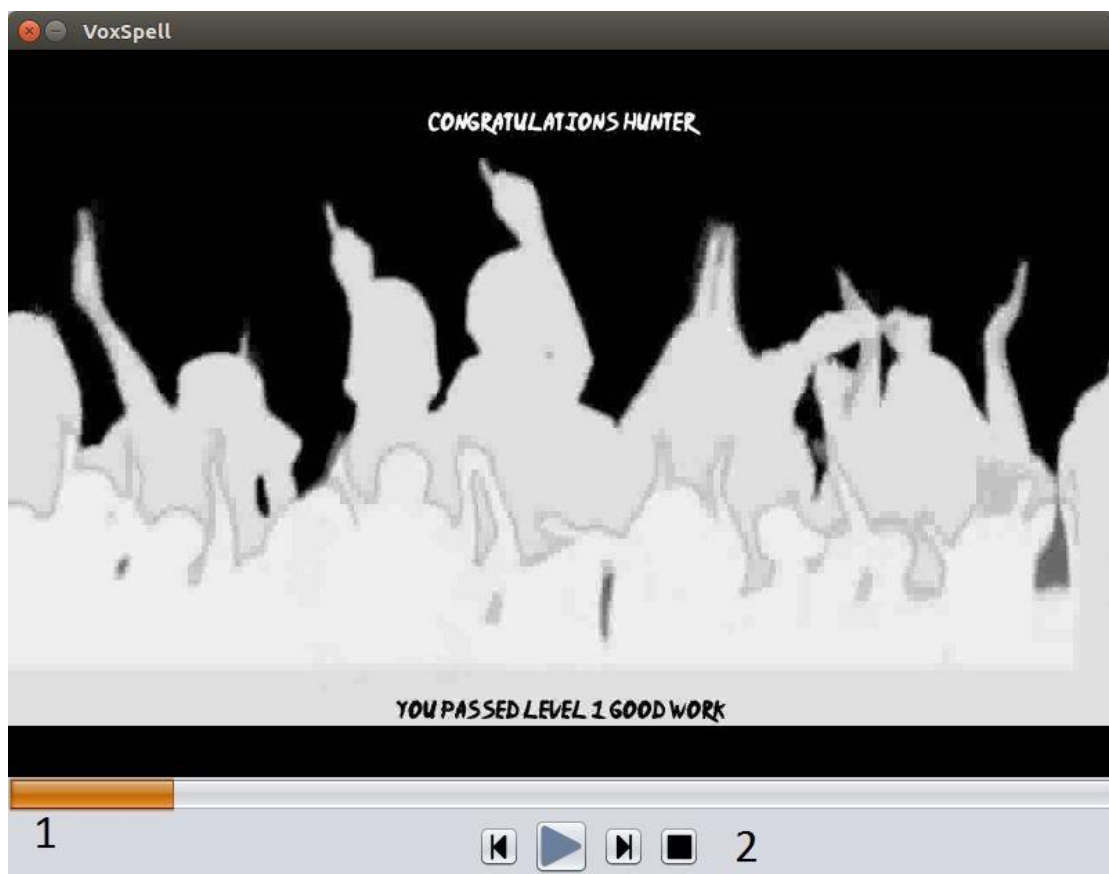


It contains a progress bar at #1 to show the progress of the video, and a video control bar at #2 to manipulate the video. Pressing the stop button will return the player to the quiz.