# VOXSPELL

# USER MANUAL

ELI SALTER

ELECTRICAL AND COMPUTER ENGINEERING (ECE)

ID: 151882407

# TABLE OF CONTENTS

# 1. FIRST RUN

- Ensure that all system requirements have been met, as per the README.md file. Have sound available and switched on too!

1. Open your bash terminal

2. Change directory to the location of the run.sh file using the **cd** command. (Voxspell.jar should be in the same directory)

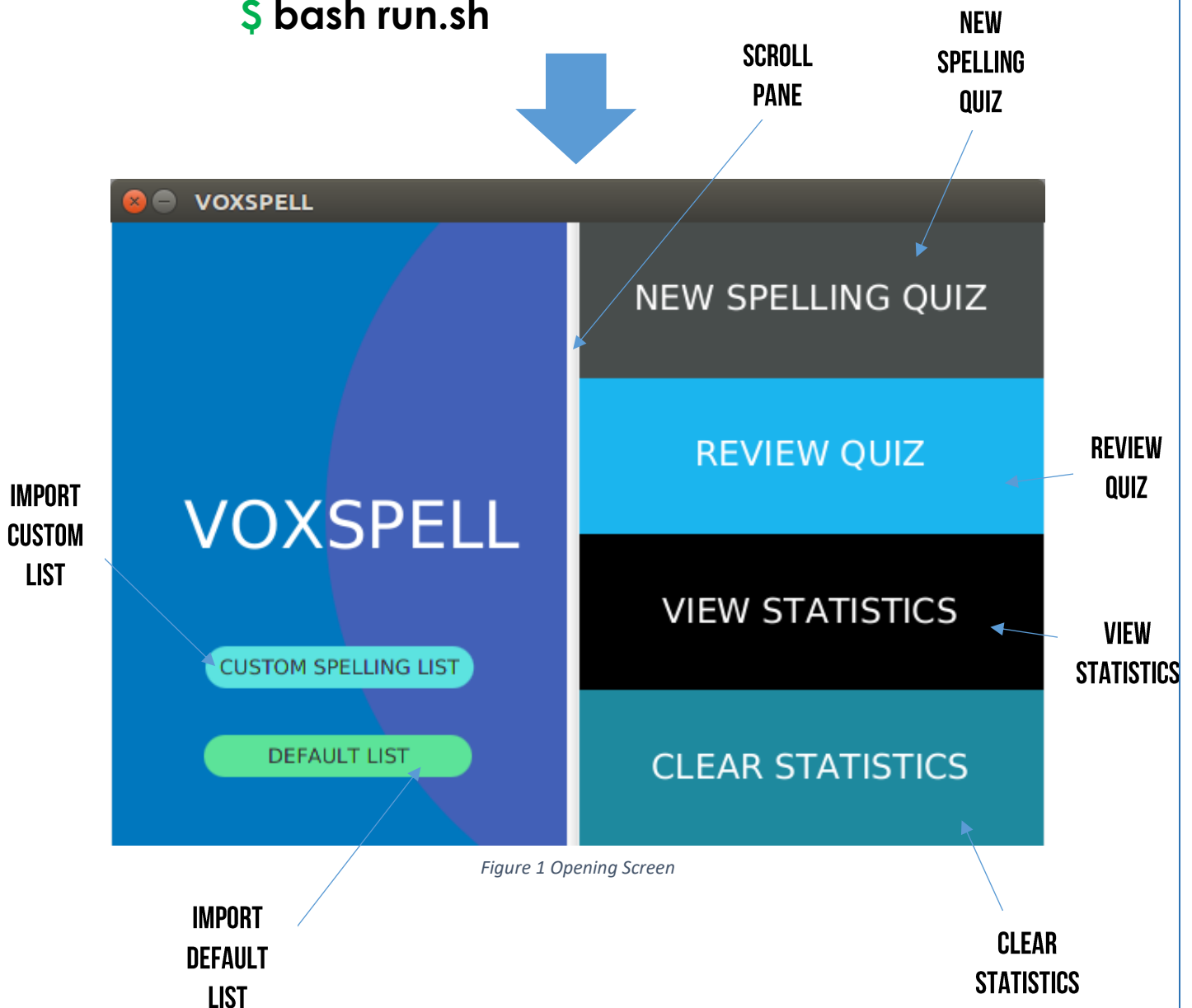3. Inside your terminal key the following, Figure 1 should appear

   **$ bash run.sh**

SCROLL PANE

NEW SPELLING QUIZ

IMPORT CUSTOM LIST

REVIEW QUIZ

VIEW STATISTICS

IMPORT DEFAULT LIST

CLEAR STATISTICS

*Figure 1 Opening Screen*
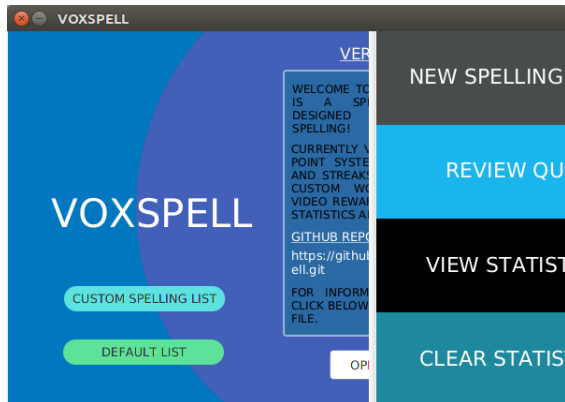
# 2. MAIN MENU

## SCROLL PANE



Figure 2 Scroll pane example 1



Figure 3 Scroll pane example 2

Click and drag anywhere on the scroll pane bar from the main menu to reveal more information.

Clicking the "OPEN README" button, opens the readme file in your default text editor: e.g. GEDDIT for Ubuntu

## IMPORT CUSTOM LIST

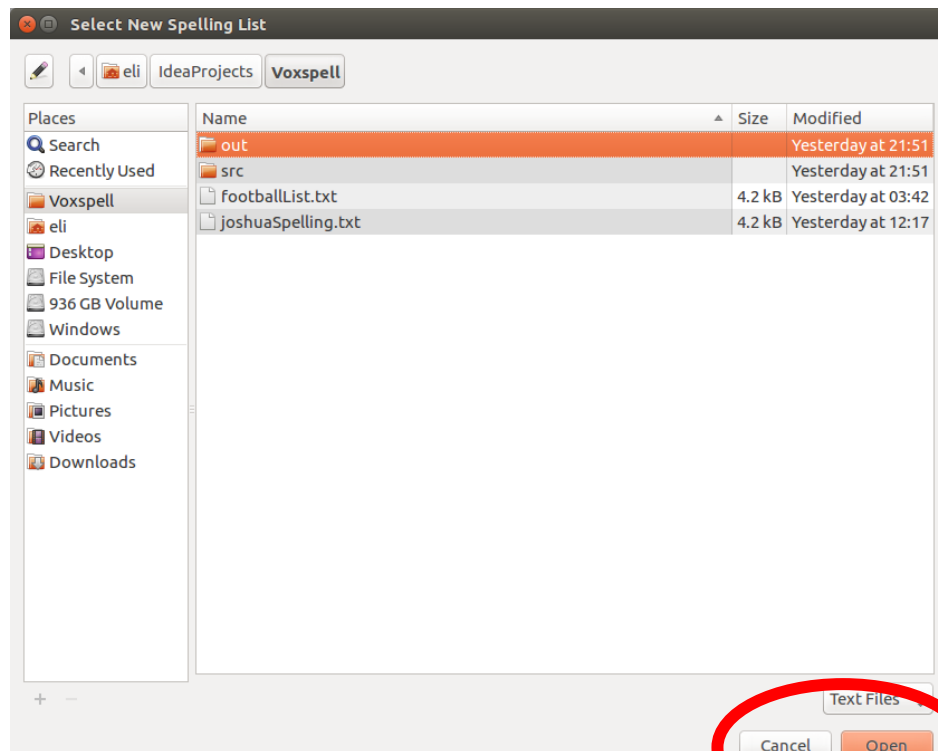Clicking on the "CUSTOM SPELLING LIST" button opens a file chooser



Figure 4 File Chooser

From the file chooser:

1. Select your custom wordlist (See Custom Wordlists)
2. Click open (In bottom right hand corner of file chooser)
   - Selecting Cancel will leave spelling list unchanged

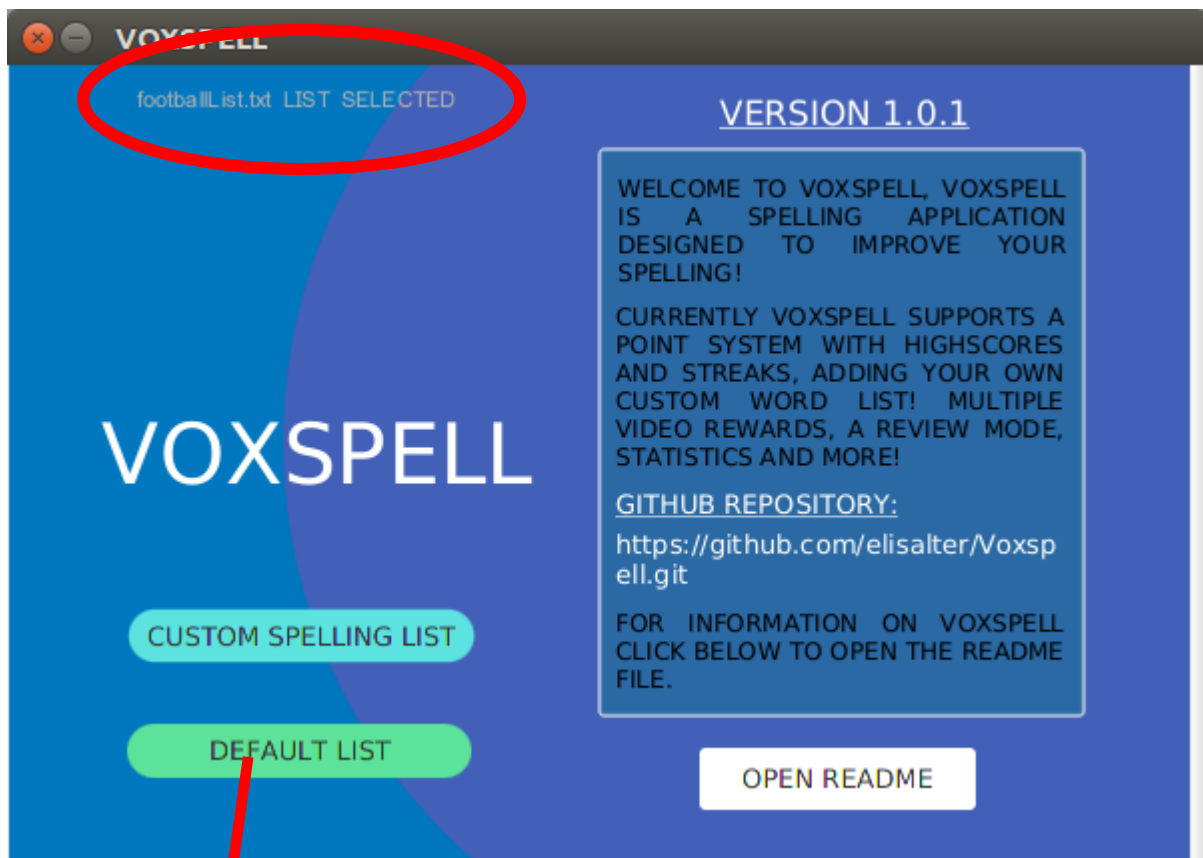- A message will appear indicating the list was successfully selected



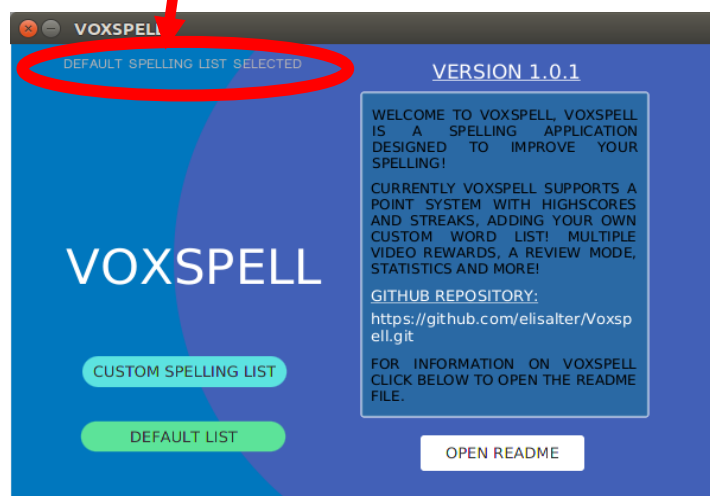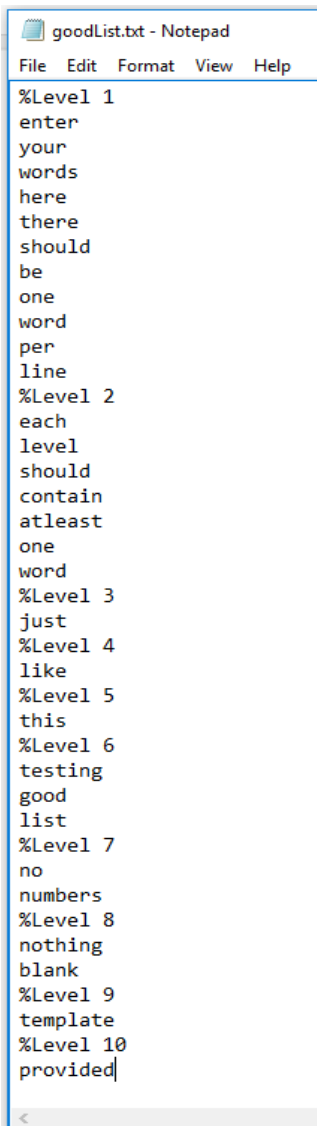*Figure 5 Football list selected*



*Figure 6 Selecting default list*

To set back to the default list:

Select "DEFAULT LIST"

## 3. CUSTOM LIST FORMAT

- Texts files (".txt" file extension)
    - Good:
        - myList.txt
        - a.txt
        - cat.txt

    - Bad:
        - myList
        - a.doc
        - holiday.pic

- Contains 10 levels formatted correctly
    - Good:

```
goodList.txt - Notepad
File  Edit  Format  View  Help
%Level 1
enter
your
words
here
there
should
be
one
word
per
line
%Level 2
each
level
should
contain
atleast
one
word
%Level 3
just
%Level 4
like
%Level 5
this
%Level 6
testing
good
list
%Level 7
no
numbers
%Level 8
nothing
blank
%Level 9
template
%Level 10
provided
```

*Figure 7 Good List Example*

**TEXT FILE RULES**

First line of list must be:

**%Level 1**

The words for level one then follow on subsequent lines.

- One word per line
- At least one word per level
- No spaces between words
- Exactly 10 levels
- No numbers
- Increasing difficulty of words from level 1 to 10
- Level 1 easiest
- Level 10 hardest
- Only letters, no symbols e.g. @$#$,][ or numbers
- To indicate start of new level type:

**%Level x**
Where x is a number between 1 and 10

- Levels entered in order

o **Bad:**



- Does not begin with **%Level 1**
- spaces between words
- numbers used as words
- levels not in order
- all 10 levels not implemented
- level 3 has no word
- symbols used e.g $
- words repeated in list

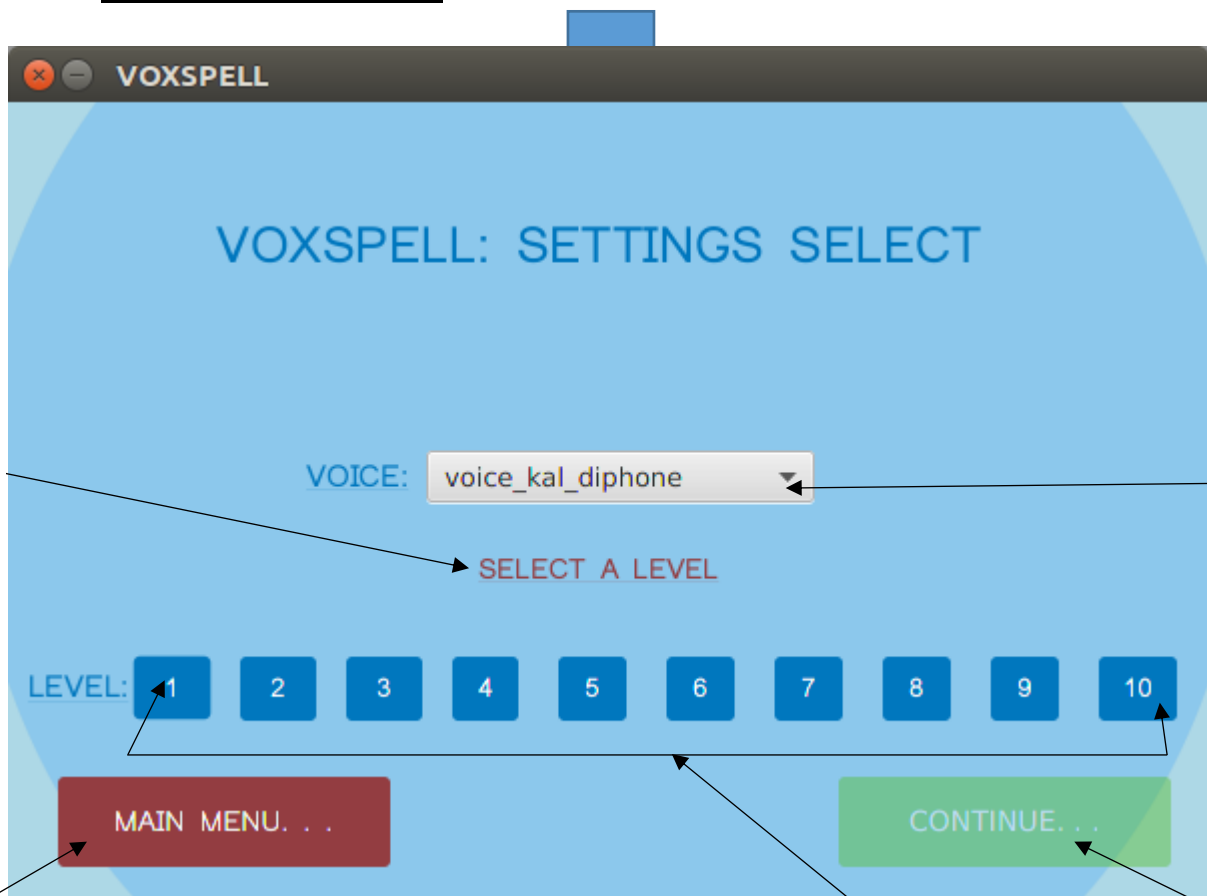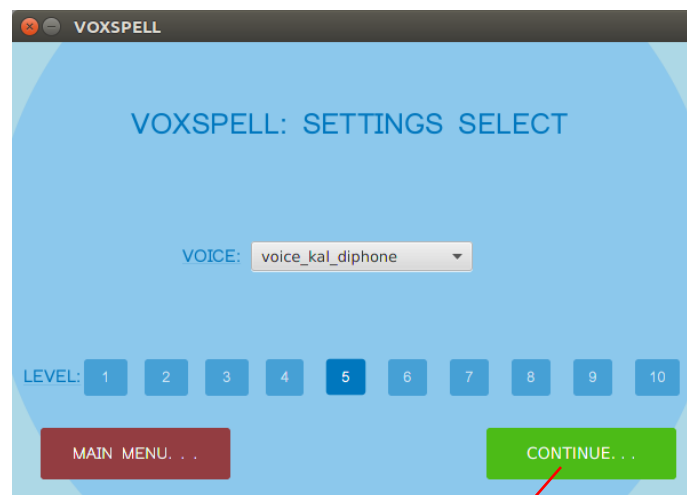*Figure 8 Bad List Example*

# 4. NEW SPELLING QUIZ



LEVEL NOT SELECTED WARNING

VOICE SELECT

RETURN TO MAIN MENU

*Figure 9 First Time New Spelling Quiz*

LEVEL BUTTONS

DISABLED CONTINUE

First time entering a new spelling quiz the "CONTINUE…" button will be disabled and all level buttons enabled.
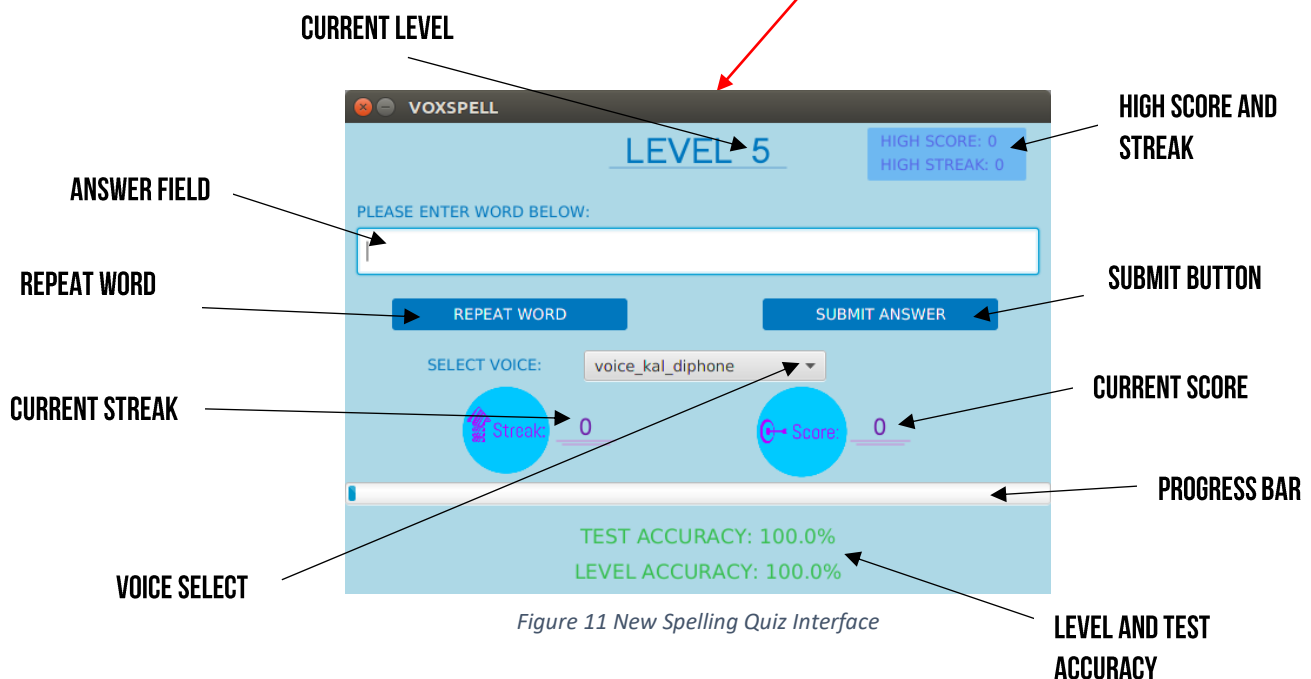
- First level button selected sets starting level
- Level not selected warning will disappear once level selected
- Return to main menu returns to screen *Figure 1*
- Voice select: choose between two text to speech voices
  - "voice_kal_diphone" – Default text to speech voice

→ level button 5 clicked



*Figure 10 Level 5 Selected*

CONTINUE… button now enabled, if clicked we enter the quiz

CURRENT LEVEL

HIGH SCORE AND STREAK

ANSWER FIELD

REPEAT WORD

CURRENT STREAK

VOICE SELECT

SUBMIT BUTTON

CURRENT SCORE

PROGRESS BAR

LEVEL AND TEST ACCURACY

*Figure 11 New Spelling Quiz Interface*

- Each spelling quiz has between 1 and 10 words

## 5. SPELLING JARGON & QUIZ BUTTONS

**Attempt**: there are two attempts for each word in the spelling quiz. The word will be spoken and then the user gets a chance to answer, this is the first attempt. If the word is spelt wrong a second attempt is given to spell the word. If the word is spelt wrong the second time, VOXSPELL then moves to first attempt of the next word in the quiz.

**Appeared** = how many times has the word been in a spelling quiz

**Mastered** = first attempt, get word correct. Word is mastered

**Faulted** = second attempt, get word correct. i.e. incorrect first attempt, correct on second attempt. Word is faulted.

**Failed** = second attempt, get word incorrect. i.e. incorrect on both attempts. Word is failed.

**Streak** = Begins at zero, increases each time a word is mastered. If any word is wrong on first attempt i.e. not mastered, then streak is reset to zero. Streak carries over between quizzes and when VOXSPELL is closed.

**Score**: Begins at zero, increases each time a word is Mastered or Faulted. If word is mastered score increases by the number of letters in the word. If word is faulted, then point gain is half of that of mastered. If number of letters is odd, then number of points gained for faulting word is (number of letters – 1)/2. If a word is failed score is reset to zero. Score carries over between quizzes and when VOXSPELL is closed.

- High scores and High streaks only updated once the current score or streak ends.

**Test Accuracy**: (Number of words mastered in current test)/(Number of words appeared in current test)

**Level Accuracy**: (Number of words mastered in current level across all tests) / (Number of words appeared in current level across all tests)

**Answer field**: where you type your answer to the spoken word

**Submit button**: submits the answer for checking. Can also be achieved by pressing the ← Enter key.

**Repeat word**: repeats the current word via text to speech
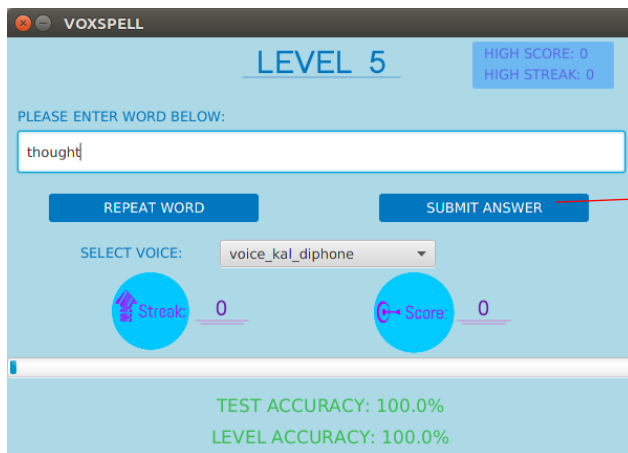
→example: first word is "thought"
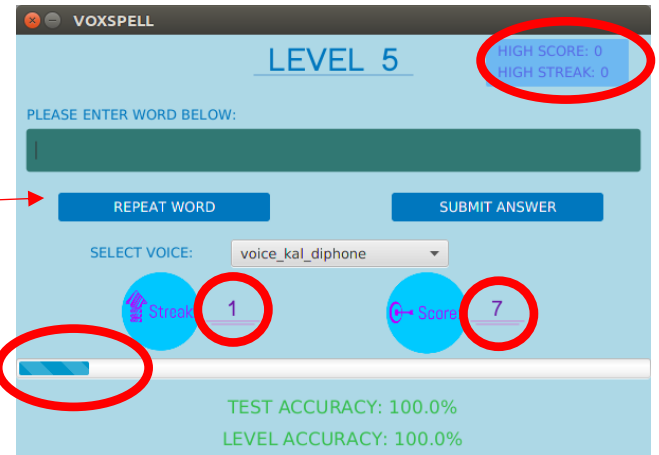


Figure 12 Spelling Word Correctly 1



Figure 13 Spelling Word Correctly

"thought" spelled correctly on first attempt, streak is increased from 0 → 1 and 7 points are gained, one for each letter in the word t-h-o-u-g-h-t.

NB: High streak and high scores remain the same, as the current streak has not ended.
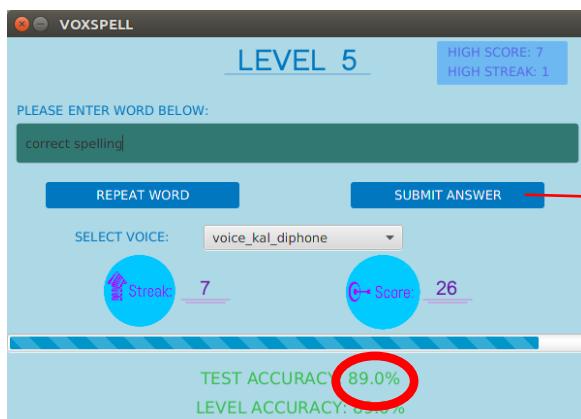
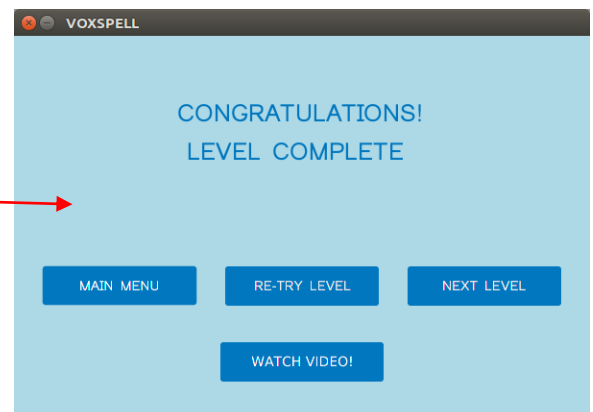## PASSING A QUIZ



Figure 14 About to pass a level



Figure 15 Level passed screen

- If a quiz is completed with a test accuracy greater than or equal to 80%, the level is passed.
- Offered video reward. By clicking "WATCH VIDEO!" button

MAIN MENU button returns the user to *Figure 1, RE-TRY LEVEL generates a new quiz with different words from the same level, NEXT LEVEL generates a new quiz with different words from the next level i.e. if clicked here would generate a level 6 quiz.*
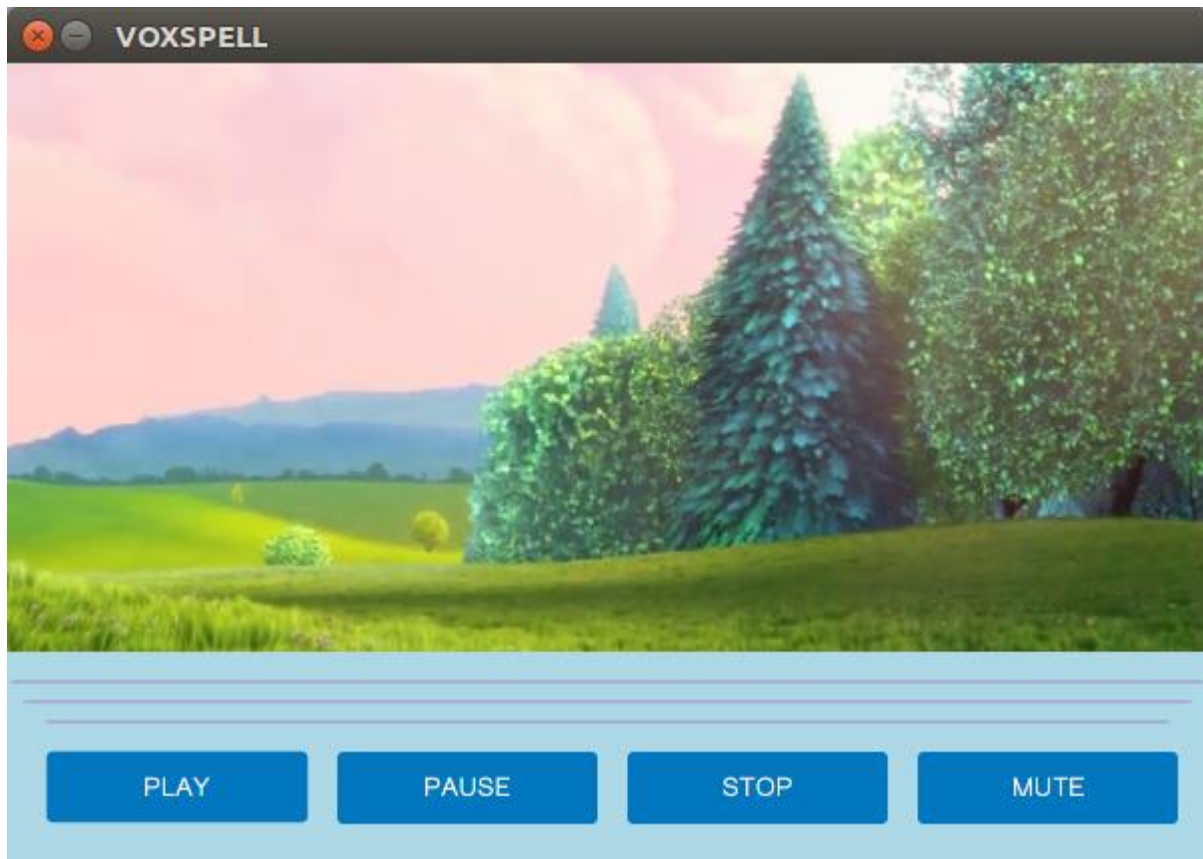
→ *"WATCH VIDEO" clicked*

*Figure 16 Video Player*

- Video automatically starts playing
- "MUTE" button mutes and un mutes the sound from the video
- "STOP" button returns the user to *Figure 15,* the level complete screen
- "PAUSE" pauses the video and audio, cannot be clicked again to start playing the video
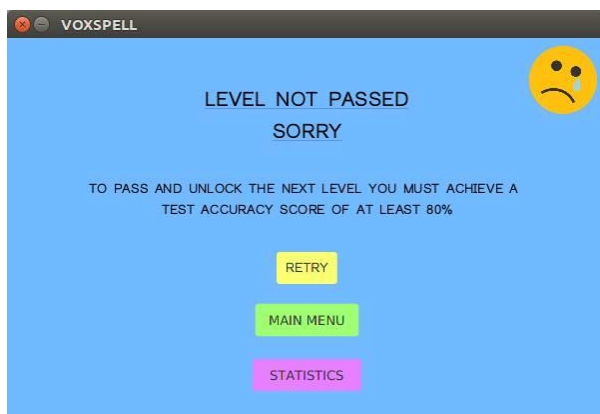- "PLAY" plays the video if it is paused

# FAILING A QUIZ



*Figure 17 Level Failed*

Scores of less than 80% test accuracy result in the level being failed.

"RETRY" repeats the level as a new spelling quiz.

"MAIN MENU" returns to the main menu.

"STATISTICS" displays user statistics screen
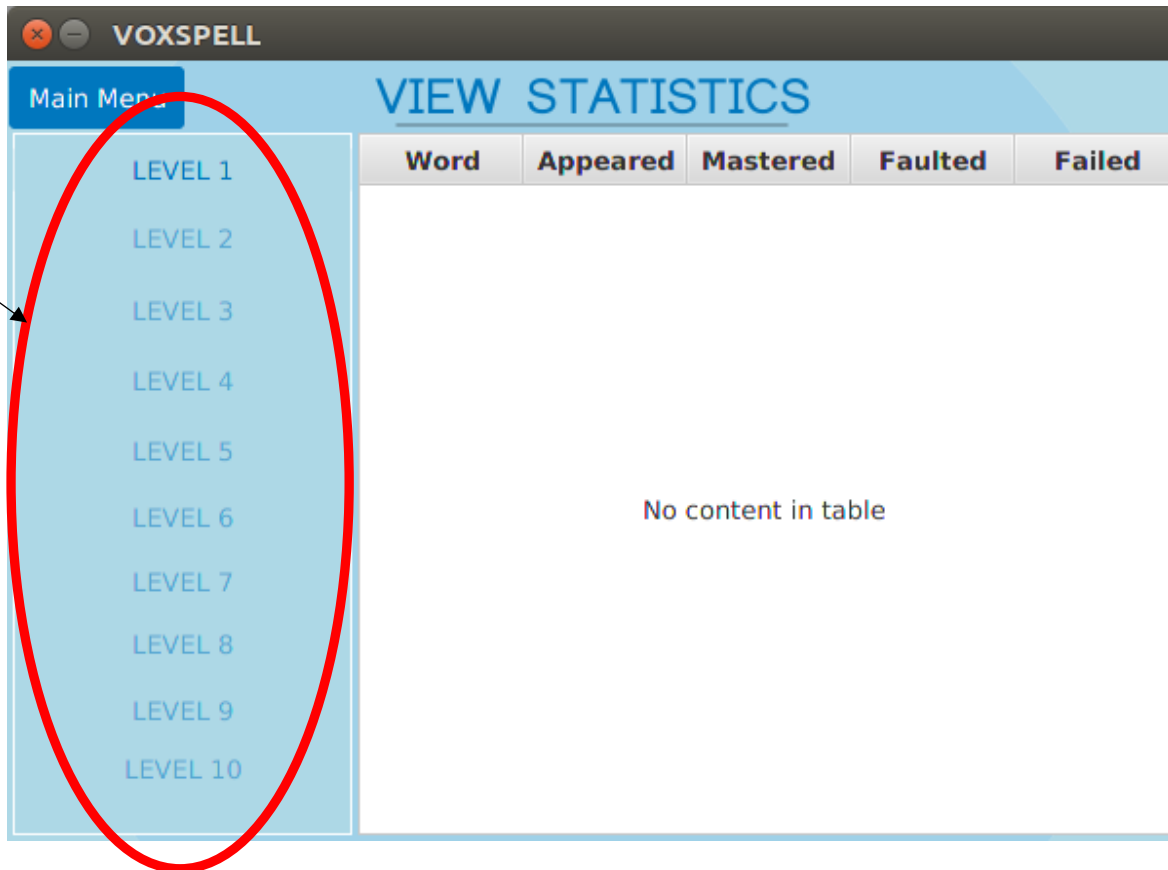
- "STATISTICS" PRESSED

# 6. STATISTICS



*Figure 18 Statistics with no level 1 complete*

The statistics screen shows statistics for all words in all word lists based by level. By clicking the level buttons on the left-hand panel, different levels can be viewed in table format. The default display is level 1, if level 1 has not been attempted then a message "No content in table" will appear.

→"Level 5" pressed



| Word | Appeared | Mastered | Faulted | Failed |
|------|----------|----------|---------|--------|
| thought | 1 | 1 | 0 | 0 |
| which | 2 | 1 | 0 | 1 |
| bed | 1 | 1 | 0 | 0 |
| where | 1 | 1 | 0 | 0 |
| car | 1 | 1 | 0 | 0 |
| who | 1 | 1 | 0 | 0 |
| last | 1 | 1 | 0 | 0 |
| five | 1 | 1 | 0 | 0 |
| once | 1 | 1 | 0 | 0 |
| walked | 1 | 1 | 0 | 0 |

Displays all words appeared in quizzes that are level 5. Column headings can be clicked to sort words by column heading properties.

*Figure 19 Sample Statistics*

12

- Click once to sort in ascending order
- Click again to sort in descending order
- Click a third time to leave as default

➔ "Failed" clicked twice

## VIEW STATISTICS

**VOXSPELL**

| Word | Appeared | Mastered | Faulted | Failed |
|------|----------|----------|---------|--------|
| which | 2 | 1 | 0 | 1 |
| thought | 1 | 1 | 0 | 0 |
| bed | 1 | 1 | 0 | 0 |
| where | 1 | 1 | 0 | 0 |
| car | 1 | 1 | 0 | 0 |
| who | 1 | 1 | 0 | 0 |
| last | 1 | 1 | 0 | 0 |
| five | 1 | 1 | 0 | 0 |
| once | 1 | 1 | 0 | 0 |
| walked | 1 | 1 | 0 | 0 |

Main Menu

LEVEL 1
LEVEL 2
LEVEL 3
LEVEL 4
LEVEL 5
LEVEL 6
LEVEL 7
LEVEL 8
LEVEL 9
LEVEL 10

*Figure 20 Sorting statistics*

# 7. REVIEW MODE

- Is accessed via the main menu (*Figure 1*)
- Only features words that are failed
- Full streak and score integration
- Word failed status removed if mastered in a review quiz
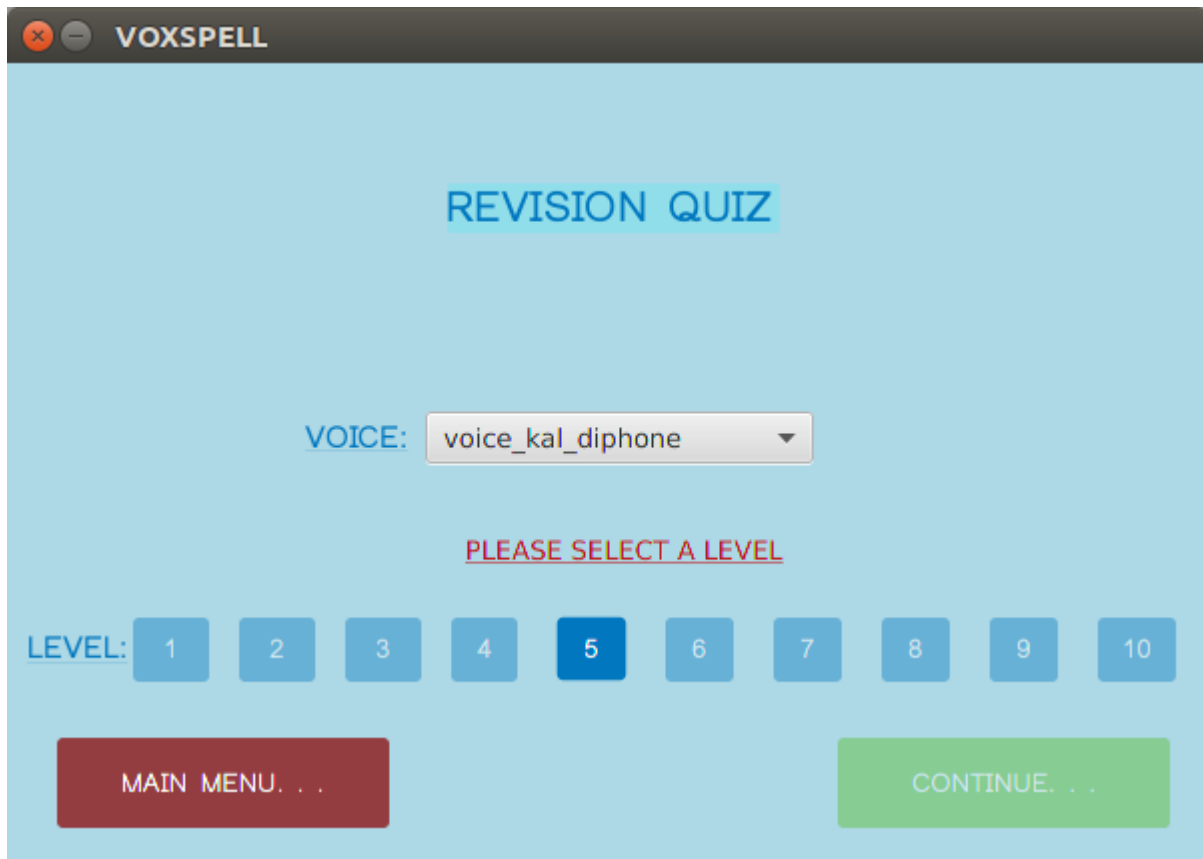
➔Main menu clicked

➔Review Quiz clicked

*Figure 21 Revision Quiz*

- Can only select a review quiz from levels in which words have been failed
- ➔ MAIN MENU … selected
- ➔ CLEAR STATISTICS selected



# CLEAR STATISTICS

Clears all:

- ➔ High scores
- ➔ High streaks
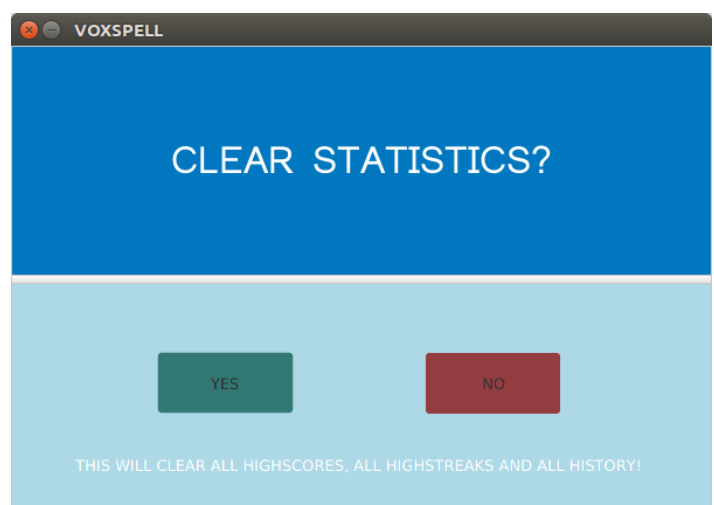- ➔ Current score
- ➔ Current streak
- ➔ All word history



*Figure 22 Clear Statistics*

# GITHUB

Repository: https://github.com/elisalter/Voxspell.git