

Initial Plan

Project Title

Title: Spelling Test / Practice Application tailored towards people with dyslexia.

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Client: Matthew Moloughney

CM3203 – One Semester Individual Project – 40 credits

Project Description

My proposal is as follows:

‘This project will consider an Automated or Semi-Automated Assessment Tool, supporting children to undertake spelling tests as part of synchronous (potentially in-class) or asynchronous learning materials. This will be tailored towards students with dyslexia as they will be able to change font colour, style, and background colour. Additionally, it will allow the teacher to show more or less feedback on the students account depending on the severity of the case.’

The main problem my proposal is trying to solve is that there are many applications out there which help test a user's ability to spell, and help the user practice spelling, however many of these are aimed towards younger ages and do not help anyone who has a learning disability. My proposal will enable a solution to this problem area. I will design it to be simple enough that it could help all ranges of people from the younger age bracket to the higher ages of school children / teens. The application will be able to aid people with dyslexia, by allowing them to change the font and background colour to one that works more effectively for the user. Allowing completion of these tasks will make it easier for a user to read the spellings.

My application is going to be coded on XCode using swift. There are a couple of reasonings for this. One is that when doing some research, I found that more people have access to a smartphone over a laptop or desktop, this means if I code my program for an app then more people will be able to access it. There are two main reasons my application is going to be on swift an IOS application, one is when doing my research, it was noticed that the most popular phone is an iPhone. I am hoping to back up this point further in my questionnaire. The second reason is because I have access to apple products and not to windows or android, therefore, for an accessibility side it makes more sense to use an IOS device application code than any other.

Project Aim and Objectives

Within this project I have several aims and objectives for my application. The main three are as follows:

- Creating a spelling application with can give a chosen amount of feedback to a user based on the selection that they have given to the question / spelling practice.

Within the application I will achieve, there will be a level of feedback for the user, this will be based off, either the user selects choices themselves or alternatively selected by the

teacher, if the user is a student who has been asked to download and use the application for schooling and learning purposes. The level of feedback will range between either just an indication of an incorrect and or correct answer, to incorrect and or correct as well as the correct answer detailed, definition and the word being used in a sentence.

- The application will be able to change the background and font colour and font so that people that have dyslexia will be able to make the application best suit them.

The application design will be able to be edited and changed based on the user needs to achieve the best spellings they can. As these applications end goal is to help people with dyslexia find it easier to improve their spellings, and there is a lot of research into fonts which best are suited for them. Other research that has been conducted for people with dyslexia is into coloured overlay. These are placed over pages to help make it easier for people to read and can be several different colours depending on what works best for the user. In the application it will allow the user to change the background of the application to a colour which best suits them to help them read and complete the spelling test.

- Make an application which can and allows the user to test and perfect their spelling skills.

This main aim and objective of the application is allowing the user to complete a spelling test. Within their age group there will be random suitable words for their level to test them, these random words will be generated by a third-party website and shown on my application. Once completed they can move to the next level which will help them improve their ability to spell over time.

Work Plan

Weeks	Task
Week 1	Initial Project Plan Ethic Form – Fill out Questionnaire for prelim research and background Send in ethics for approval Set up documentation for final report this included: <ul style="list-style-type: none"> - 'Title Page' - 'Abstract' - 'Acknowledgement' - 'Table of content' - 'Table of figures'
Week 2	Code the login and register system for the application Write up the introduction for the final report Begin research the 'Background' of the project including: <ul style="list-style-type: none"> - Dyslexia - Colour Overlay - Fonts - Spelling Application - Code Starting to develop some function requirement – listing must, should, could Details on personas (of application) and user stories.
Week 3	Code the teacher account, front-end and back-end of the application

	<ul style="list-style-type: none"> - Front-end – Design, create homework task, create classes - Back-end – Database including, classes, spelling test etc. <p>Write up and refine the 'Background' part of the report. Begin research and complying the 'Approach' selection. Hand out the survey to begin to get feedback for the application. Meeting with Client</p>
Week 4	<p>Code the student account, front-end and back-end of the application.</p> <ul style="list-style-type: none"> - Front-end – Design, coming homework task, complete spelling test. - Back-end – database, general user information, setting preference, spelling test results, homework (due, overdue, pending) <p>Write up and refine the 'Approach' part of the report.</p>
Week 5	<p>Code the general account user front-end and back-end of the application.</p> <ul style="list-style-type: none"> - Front-end – design, coming spelling test that are auto generated - Back-end – database, general user information, setting preference, results in spelling test. <p>Code the setting of the account page for all three.</p>
Week 6	<p>Tidy the code up and refine and finish – making sure all the pages are linked. Begin to write up the 'Implementation' part of the report. Review the result of the survey and showing how they influenced my code</p>
Week 7	<p>Test the application making sure that all the parts of the application work fully Finish writing up the 'Implementation' part of the report.</p>
Week 8	<p>Begin the 'Results and Evaluation' part of the report Also begin the 'Future Work' part of the final report Meeting with Client</p>
Week 9	<p>Complete the 'Results and Evaluation' write up. Complete the 'Future Work' write up. Begin and complete the 'Conclusion' part of the final report.</p>
Week 10	<p>Write and complete the</p> <ul style="list-style-type: none"> - 'Reflection on Learning' - 'Glossary' - 'Table of abbreviation' - 'Appendixes' <p>Finally bring all the report together checking through and make sure all the correct information is in the correct weeks.</p>
Week 11	<p>Fall back week – If anything has been unable to be finished or I am falling behind, these weeks are reserved to help.</p>
Week 12	<p>Fall back week – If anything has been unable to be finished or I am falling behind, these weeks are reserved to help.</p>

Within my fall-back week these could be placed anywhere needed for example if I need more time to code the user account – teacher, student and or general.

I have attached a photograph of my Gantt Chart I have created to I can see a more visual copy of my timeline to complete my final year project.

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