**Summative Evaluation**

The general aim of our study, was to design and develop a tutoring application which proposes to help connect parents with university students to provide tuition services in the subject that the child needs assistance with. This project was deployed to help the inequalities of education for less affluent students to benefit from private tuition.

The design process involved extensive market research through our target group to help identify the most appropriate platform and features which would meet the needs of the end user. We also took inspiration from the likes of Tinder, Amazon Prime & Quick to add creativity and a distinctive edge to our overall concept. In order to test the viability of the design we used a three-step process to test our model – conceptual, functional & technical (minimum viable product) prototyping. Our model was presented using wireframe, PowerPoint presentation & JQuery application – all in which, feedback was collected through a survey after users had engaged with the design.

Within our research, we learnt that 67% of the users were quite satisfied with the functional prototype in which they felt the interaction and design of the product ‘suited the concept well’. The feedback also gave insight on the users understanding and realization of the initiative behind having University students as tutors for the project. For the remaining 33% of the targeted groups who tested the MVP were not as confident about the practicality of the platform. The early adopters felt ‘confused’ when using the product as they could not quite understand the steps on how the ‘overall service worked’. The target group recommended that an inclusion of a ‘short guide at the beginning of the application’ or even on ‘every single page’ which would help users better understand the process and to fully utilise all the platform’s features.

From these findings, we were able to establish how the interface could be redesigned and further developed to ensure that the needs of the users are met. Our adaptation of the final application would concentrate on including sufficient features with a UX-friendly design.

Our objectives for developing the platform was to build an innovative web application with a simple, yet engaging user interface and experience.

We approached our development phase of the project in way where we deployed a minimalist design with only necessary elements for functionality included in the platform. This was intended to manage the application into phases which would provide a simple and consistent frame of reference for everyone involved in the project. The development was handled by dividing the project team into two groups which would focus on each of our two end users - parents and tutor. Each group worked on the user interface that would essentially form the HelpingHand application. We used GitLab as our central repository for the management of sprints and backlogs for each group to effectively develop and complete assigned tasks. We felt the use of this environment significantly helped create and manage milestones across the project efficiently, in that we were all able to mutually work as a unit when accomplishing our objectives. Both groups were able to successfully engineer the main structure of the website around HTML, CSS and PHP. These programming components equally made up the front-end and back-end of the application. The first phase was handled across the whole team to build five webpages which would be seen as the main entry point into the application. Each webpage would also serve as navigation links for our users when using the platform. The team demonstrated its effectiveness in achieving this task without any real constraints. Phase two focussed on the design and handling of user’s registration and login. Each group would approach the same principles when developing the registration and login page in ensuring the same functionalities were provided for both users. This was primarily agreed to maintain a coherent interface design throughout our application. We further emphasised this approach in our backlog along with the set tasks for this phase. Despite each group completing their assigned implementations, the team faced major obstacles and challenges throughout this phase which heavily impacted the project’s overall progress. The main area that caused each group member the most problems would be when attempting to handle PHP with the application in delivering the requested data to the MySQL server. We found a lack of response from the MySQL database when trying to store user sessions on the website and when also attempting to query usernames and passwords. The team collectively worked together for a number of weeks on this obstacle, by generating new ideas and exploiting debugging methods to accomplish the tasks in the end.

Upon completion of the second phase of our application development, we felt it was essential to carry out user testing on our platform during early development stages to ensure we were on track in meeting the needs and preferences of our users. This process

carried out activities of specific tasks and questions which gave our users clear guidance on what actions to take and what features to speak about, when using the Helping Hand web application. A minimal viable product was introduced to our users for which they were asked to test its main features and judge the overall functionality. The general objective for the user study was to discover the limitations of our design and validity of the platform through our user’s feedback in order to provide the ultimate user experience. We were able to gather feedback from participates who partook in our observations through video recordings and screencasts. From these findings, we learnt that few of our participants misunderstood our project purpose and concept as they perceived to think our application was a self-learning tool rather than an actual tutoring service due to the lack of content provided within the website. As a result, the development team were able to make the necessary amendments with the issue raised. Through the outcomes of the user testing and further development, we intended on iterating advanced versions of the platform through more user testing but came short due to time constraints.

Overall, although the project may have not achieved its anticipated end goals as outlined in the project proposal, the work delivered by the team to date demonstrated their initiative and willingness to work through tough challenges and deadlines. Our limitations within this project were a combination of both manpower shortages and time constraints which as a result, saw the team only progress up until phase two. Moreover, although the team may have found the aspect of development more challenging than others, we were all able to utilise on resources we found through research, such as tutorials, examples and guides.