

Student Support

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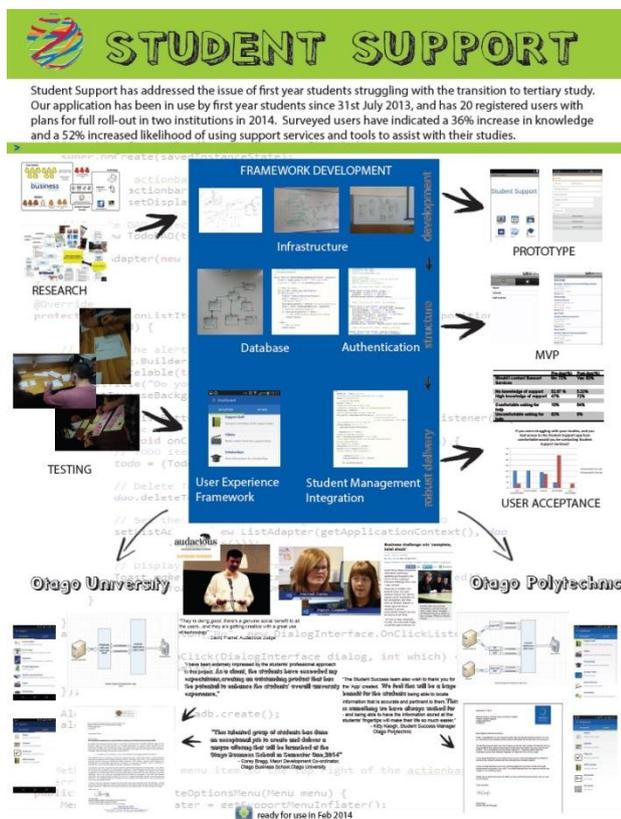
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ABSTRACT

Student Support is a framework for mobile support tool that aims to increase access to support services by students. Our project had the goal of increasing the contact between students and the support services offered at tertiary institutions. Research was conducted that indicated there was need to provide a technology based solution to the problem that students were not accessing support services available. We have achieved our objectives by creating a framework that allows a unique mobile application for an institution. We have built the framework around the Student Management System EBS4; this is currently being adopted by many institutions. To date we have implemented our framework at two institutions. Our databases are running on an Apache server, we make use of MySQL, PHP, JSON and XML that forms the back-end of our system, and use Eclipse as our IDE which provides support during development as well as open source code is mainly based on the Eclipse IDE.



Tertiary education can be a huge step for some students, the fine line from the support of high school directed teaching to an education that is focused on self-directed learning can for some, be an obstacle. With the increase of smart devices used, students can take their class room anywhere. The tertiary sector has now become tightly regulated with higher performance and success rates expected from central government, and students are finding added pressures to perform well in their studies.

Student success is a major concern for all institutions – they want their students to do well. They are not aware of the

students who are not seeking help for reasons that can vary from being too shy to ask for help, or simply not knowing where to get help. A mobile application would bridge the gap between providing help to students that need it and a student not succeeding in their studies, because they did not know where to seek help.

Student Support has built a framework that allows for institution specific applications to be created which provide students access to their institutions support systems such as: staff contacts, important support staff and key people that can provide assistance during their studies. Student specific data such as grades, enrolled papers and the registered student details are also available via this application.

A key difference for this application is that it has the ability to pull individual users data out of the institutions student management system.

The application allows for personal and private use allowing a user that may not be confident at just approaching a staff member for help or advice to seek out and make contact from the privacy of their phone without others knowing as may be the case if they were to use a computer which others may be able to see what they are doing.

A student may be struggling with an assignment given out in class, not wanting to approach another class member they have the student support installed on their phone and they find the lecturer for that class and email them with their question right from the app and get a reply to their question from the lecturer and are able to start their assignment.

We are using a web service for communicating between our servers and the application to separate the application from the databases. This provides the advantage that if the database is modified there is no need to change the applications code, just the web service sitting in the middle. This provides a better level of security as the web service will only access specific data.

Data is encoded and transmitted using JSON. JSON has simple format for using associative data packages and provides support for PHP which we are using in our web service to provide JSON objects to our application. An advantage of JSON is that it has a low data cost so is a good choice for mobile devices.

We have had to use two different structures for the implementation of the applications, for Otago Polytechnic we

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were able to gain access to the Student Management System (SMS) to gain access to student data and use a custom database for user authentication and storing of data that was not available in the SMS. For the University of Otago we had to build a database, as access to their SMS was not available as they are migrating to EBS4, accessing their SMS will become possible once migration has taken place.

Functional Requirement

1. The user will be able to access methods of academic support



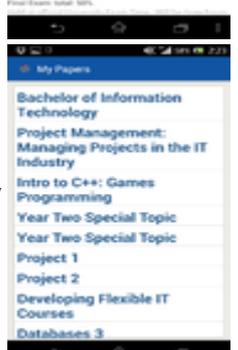
2. The user will be able to search for a specific contact



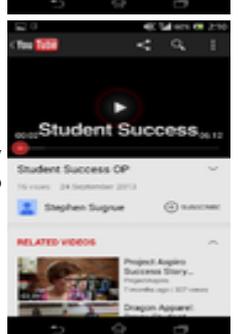
3. The user will be able to find assessment information for a specific paper



4. The user will be able to view papers they are enrolled in



5. The user will be able to view videos related to Otago Polytechnic



After the initial release of the application user feedback was gathered and alterations were made to the requirements of the application. For testing of the robust release of the application test users were first asked to fill out a survey about their knowledge of support services at Otago Polytechnic. After the test users had filled out their responses they downloaded the application and were left to use the application for a few days, after this selected users were asked to fill out a second survey to determine if the application had increased their willingness to access student support services at OP, see figure 1, also more importantly their knowledge of support services, see figure 2, and what student success offer for support while studying.

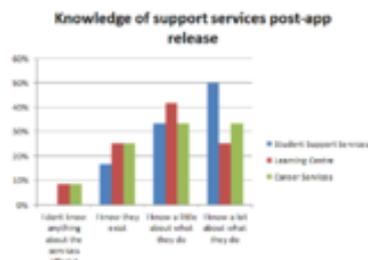


Figure 1: Post app survey results of Knowledge of support services.

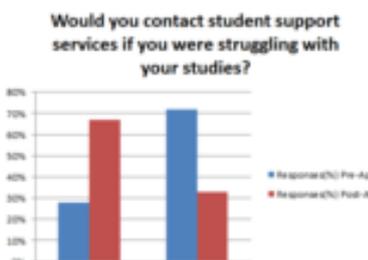


Figure 2: Willingness to contact support services

We have deployed the application to our clients; The University of Otago Business School will begin using the application in February 2015. We have deployed to Information Technology students and have been using the application since July 2013, with a polytechnic wide rollout in February 2015.

Student Support is a framework that has been built to allow institutions to provide mobile access to support services and student information, so students can get the support they may need during their studies.

This paper has described the agile process we have undertaken to create a robust and flexible framework. From the Student Support frame work we have implemented versions for both Otago Polytechnic and University of Otago; there is clear evidence that this framework be a huge benefit to other tertiary institutions.

The goal of our project was to provide the necessary tools for students, to assist them during their studies. From the early stages of this project a mobile platform was an obvious choice; because of the accessibility to smartphones allowing students to be able to gain assistance anywhere anytime. This project was to create a tool to enable stronger communication channels between students and their learning institutions. Our application provides the student the opportunity to gain access to tools they may not have been aware of.