Personas of Students Accessing a Peer-Facilitated Support for Learning Program

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Abstract

STIMulate is a support for learning program at the Queensland University of Technology in Brisbane, Australia. The program provides assistance in mathematics, science and information technology for undergraduate students. This paper develops personas - archetypal users - that represent the attitudes and motivations of students that utilise STIMulate (in particular, the IT stream). Seven different personas were developed based on interviews gathered from Peer Learning Facilitators (PLF) who are experienced students that have excelled in relevant subject areas. The personas were then validated by a PLF focus group. Developing the personas enabled us to better understand the characteristics and needs of the students using the STIMulate program, enabling a more critical analysis of the quality of the service provided.

Introduction

STIMulate is a support for learning service at the Queensland University of Technology (QUT). The program, which commenced in 2013, provides assistance for skills development in the maths, science and information technology (IT) disciplines. In that time STIMulate has recorded visitation from 8447 students (QUT, 2014). The service includes independent study spaces, drop-in assistance, group support sessions, and online and physical resource sheets. Students supported through the drop-in services are assisted by Peer Learning Facilitators (PLF) and academic staff. PLFs are experienced students, who have completed a minimum of two full-time semesters with a grade point average of at least 6.5 out of 7. PLFs and academic staff provide one-on-one consultations to assist with specific topics.

The visitation data captured by STIMulate, while useful, provides us with little information on the attitudes and motivations of visiting students. Our research aims to identify existing gaps in the service provided by STIMulate, by understanding the attitudes and motivations of the students who use the drop-in service provided by the IT PLFs. Personas (Cooper, 2004; Nielsen, 2012) was proposed to achieve the research aims.

Personas are specific and concrete representations of target audience users (Rogers, Sharp, & Preece, 2011). Personas do not illustrate real individuals, but represent a group or subset of an audience with distinct attitudes and motivations (Cooper, 2004; Nielsen, 2012). Personas are a powerful tool to view STIMulate from a student perspective. Personas will provide an insight into existing gaps in the services provided by STIMulate. We intend to use the insights yielded to develop new ways to fill these gaps, to improve service quality, as well as training for our growing team of volunteers.

Personas have long been found to be beneficial in human-computer interaction and interaction design fields (Nielsen, 2012, Rogers et al., 2011) by increasing the focus on users and their needs, being an effective communication tool, having users directly influence design, leading to better design decisions and defining products' features (Cooper, 2004; Cooper, Reimann, & Cronin, 2007). However, the use of personas in the teaching and

learning field has been limited, with Bilandzic and Foth (2013) using personas to understand the social learning of users in libraries and Phuong and Shimakawa (2015) using the methods to understand student motivations and behaviours in a programming course.

This research focused on the IT stream of the program for three reasons:
- Traditional support aids, such as whiteboards and worksheets have not been effective.
- An uneven and higher demand, for support of specific IT skills.
- IT skills support was launched with STIMulate, whereas the math and science skills support services were amalgamated from previous programs

Data Collection

Personas were identified based on semi-structured interviews (Beyer & Holtzblatt, 1997, Rogers et al., 2011) with PLFs. Five academics from the STIMulate program were involved in the design and development of the interview questions. Two academics (from the team of five academics who developed the interview questions) conducted the interviews.

Interviewees were experienced PLF's who had volunteered for at least two semesters. Food vouchers were offered and interviews were audio recorded for later transcription. After six PLFs (two female and four male, aged 19 to 40) were interviewed, the observations and reports from the PLFs began to converge and overlap, providing a consistent picture of the different attitudes and motivation of the students who were accessing STIMulate.

Based on these initial interviews, personas were developed by four academics (from the team of five academics who developed the interview questions) in a workshop. A further four PLFs (two female and four male, aged 19 to 35) were interviewed to obtain specific information for some of the personas that emerged. The initial personas were revised in another workshop by the four academics who initially developed the personas. A focus group of another seven PLFs (two female and five male, aged 19 to 40) was assembled to further validate the personas. The focus group was facilitated by two academics (from the team of five academics who developed the interview questions).

Personas

Based on user interviews, seven personas were developed: *Last Minute Larry, Learner Lisa, High Achiever Henry, No Work Nathan, Familiar Fred, No Confidence Nancy and Shy Sally*. Figure 1 shows an example of a persona developed – Last Minute Larry. The gender identified in each persona indicates the dominant gender reported by interviewees.

Persona 1: Last Minute Larry

This persona represents a student who often partially completes their assigned work but requires last minute assistance to complete their assessment on time. Last Minute Larry is motivated by the deadline of an assessment and has a high expectation that there will be an expert at STIMulate to help them immediately. Larry may have negative interactions with PLFs as they are hurried and stressed, due to poor time management. Larry will return to STIMulate if time is running out to independently complete their next assessment.

A small handful of Last Minute Larry's may change their behavioral and come in advance to request help, once they learned that PLFs with different areas of expertise are only timetabled at specific times throughout the week. This may transition them to a Familiar Fred persona.

Last Minute Larry

Age: 17 - 23
Full/Part time: Full time

What motivates me?
- Deadline of my assessment

What help do I need?
- Completing my assessment on time

What do I expect from STIMulate?
- Someone there always ready to help me

Things I struggle with…
- Time management

I come across as…
- Hurried/Rushed

I want to walk out ….
- With my assessment completed

I may return to STIMulate …
- If I'm running out of time again to complete my next assessment on my own
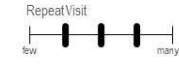- Sometimes Familiar Fred

"It's due at 3pm today, I need to figure this out now!"

Last Minute Larry is a student who often partially completes his assigned work, but requires last minute assistance to complete his assessment on time or to figure out the nuances of the work that he does not understand.

A small handful of Larrys may change their behavioral patterns and come in advance to request help, once they learned that PLFs with different areas of expertise are only timetabled at specific times throughout the week. This may transition them to a Familiar Fred persona.

Behaviours

Expectations of PLFs — low/high

Knowledge — low/high

Time Management — low/high

IT/Programming Skills — low/high

Time spent in STIMulate — short/long
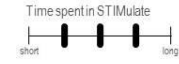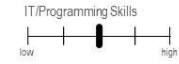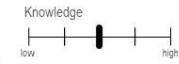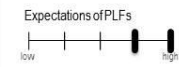
Repeat Visit — few/many

Figure 1: Persona Example – Last Minute Larry

Persona 2: Learner Lisa

Learner Lisa is self-motivated and attempts to understand the underlying principles of their studies, rather than just to complete an assessment. Lisa usually works on the most recent study material. They study independently, getting assistance from the PLFs when required. Lisa expects that STIMulate will provide a good study environment for them. PLFs will most often have a positive interaction with Leaner Lisa. The majority of the PLFs who make use of the STIMulate study space as students, can often be characterized as Leaner Lisa.

Persona 3: High Achiever Henry

High Achiever Henry can be seen as a sub-persona of Leaner Lisa; however, more focused in getting the highest mark, rather than understanding a concept. Henry will work diligently to achieve the maximum mark and will come to STIMulate to ensure that their work is of the highest quality. Though they may come across as confident, Henry lacks the ability and/or the confidence to judge the quality of their own work. As such, High Achiever Henry usually requires a second opinion on their assessment, and expects to leave STIMulate with the knowledge that their assignment will get the maximum mark. They may return to double check their next assessment.

High Achiever Henry may not spend a lot of time in STIMulate as they only need help in specific areas. PLFs usually have positive interactions with this persona.

Persona 4: No Work Nathan

No Work Nathan is often seen as a lazy student who attempts to get others to do their work for them. Nathan is always seeking assistance, and they think that by asking for help and being present when help is given they are doing their own work. In reality, No Work Nathan just wants someone else to do the work for them. No Work Nathan may struggle with the

motivation to start their assessment, perhaps due to a lack of understanding first principles. At critical times, Nathan will spend a lot of time in the STIMulate space, approaching one PLF after another, in an attempt get PLFs to complete the assessment. Nathan can come across as pushy or manipulative, causing their interactions with PLFs to become negative. They may return to STIMulate if they find a PLF who will help them complete their assessment.

Persona 5: Familiar Fred

Familiar Fred is a purposeful student, who repeatedly visits STIMulate to seek help from a specific PLF. These repeat visits can be attributed to knowing that PLF is an expert in a relevant area, and having built a rapport. It is the rapport between the visiting student and PLF that leads to these interactions being classified as positive. Familiar Fred may have also experienced a negative interaction with a previous PLF, or simply is only free to request help at a specific time.

Some Familiar Fred's do not accomplish much work on their own and may attempt to seek help from PLFs outside the STIMulate space. This may cause the interaction between Familiar Fred and the PLF to become negative.

Persona 6: No Confidence Nancy

No Confidence Nancy is often unsure and as the name suggests, lacks self-confidence. Students with this persona may be returning to study after a long absence from an educational institution, or may have a disability. No Confidence Nancy is usually a mature aged student who is unsure of they own abilities. They often need help understanding first principles and PLFs often walk through the material to enable Nancy to build their confidence. Nancy may return to STIMulate regularly if they get what they deem as useful help. Nancy is very appreciative of the help provided, usually having positive interactions with PLFs.

Persona 7: Shy Sally

Shy Sally is uncomfortable in a crowd. They are keen to get help but prefer a quiet environment. Sally may say they understand a concept even when they do not in order to avoid further interaction in the potentially crowded STIMulate space. Shy Sally appears timid but is very appreciative of the help given by the PLFs, having positive interactions with PLFs. They may return to STIMulate repeatedly if they can attend a quiet one-on-one session. If Shy Sally is from a culturally different background, or is from an all-girls school, they may prefer help from women.

Discussion

Personas are not real students but are composite archetypes based on information of real students, compiled from interviews (Cooper et al., 2007). Personas are used to create empathy, engagement, and identification with the students to understand their world and create solutions for them (Nielsen, 2012). Personas are not stereotypes (Nielsen, 2012) - simplified, clichéd ideas – about students. A stereotype is a caricature which emphasises key features; e.g. *students do not do their work because they are lazy and like to party*. In contrast, personas describe the attitudes and motivation of students based on observational data. The rich data incorporated into personas serve to correct stereotypes, giving a three-dimensional quality to personas, e.g. *some students lack motivation to do their own work as they do not understand first principles*.

Personas are not stereotypes, hence students can change their behaviour, thus changing from one persona to another. For example, it was reported that a handful of Last Minute Larry's changed their behavioral patterns and sought assistance in advance, when they learned that PLFs with different areas of expertise are only timetabled at specific times during the week. These students return to STIMulate either as Leaner Lisa or Familiar Fred.

Data from our research will help the designer of support for learning programs such as STIMulate to obtain a deeper understanding of the target audience and create design outcomes based on these personas (Nielsen, 2012).

Conclusion

The aim of this research was to identify existing gaps in the service provided by STIMulate, by understanding the attitudes and motivations of the students who use the drop-in service provided by the IT PLFs. Based on interviews, seven personas were developed to describe the attitudes and motivation of visiting students seeking assistance with IT skills and concepts. The personas provided insight into the existing issues with-in the STIMulate service and space, and will be used in future work to critically analyse how support for IT concepts and skills are provided, as well as improve service quality.

Key Questions and Issues

The use of personas in teaching and learning has been limited. In our research, we will be using personas useful to identify existing gaps in our program.

1. Why have personas not been used in the scholarship of teaching and learning?
2. What are the possible advantages and disadvantages of using personas in this area?
3. What methods have currently been recently employed in the teaching and learning space to identify gaps in peer assisted learning programs?

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