



PROJECT REPORT OF SMART COMMUNITY

Prepared for: Whizz ICT center

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INTRODUCTION

Thembinkosi Qondela is the founder and owner of the Whizz ICT center in Khayelitsha, Cape Town. Few years ago, he was a student at the University of Cape Town and also spent some years working there after finishing his studies. The Whizz ICT center is some sort of an internet cafe, but it differs because of the extra activities that it offers, that a normal internet cafe wouldn't offer.

Whizz ICT center is a small business that is driven to make positive impact in the community and change the way people complete their daily tasks using technology e.g. their smartphones etc. It came to existence because Thembinkosi saw the struggle that the people went through just to print and type documents, and just the lack of computer literacy among the community.

SITUATION OF CONCERN

The Whizz ICT concern right now is helping people use the technology available to them more efficiently to make their lives more easy. They center have noticed that many people in the community have smart phones but they are failing to use them to their fullest potential.

People are going far and wasting money to complete tasks that they can simply complete on their own from the comfort of their homes. The concern is to make the people of the community aware of the benefits they can receive from just simply using their mobile devices(smartphone) more wisely and efficiently. Whizz ICT center saw a great opportunity to teach the community all these things at a some cost and grow their business.

BUSINESS OBJECTIVES

- Whizz ICT center wishes to create or develop a course that they will offer to the people from the community to come and learn more about mobile devices.
- They want this course to get accreditation from the department of education, so that people may receive some sort of qualification at completion of the course.
- They want to expand their business to other areas outside Khayelitsha, they want their center to be present in other townships as well around Cape Town.

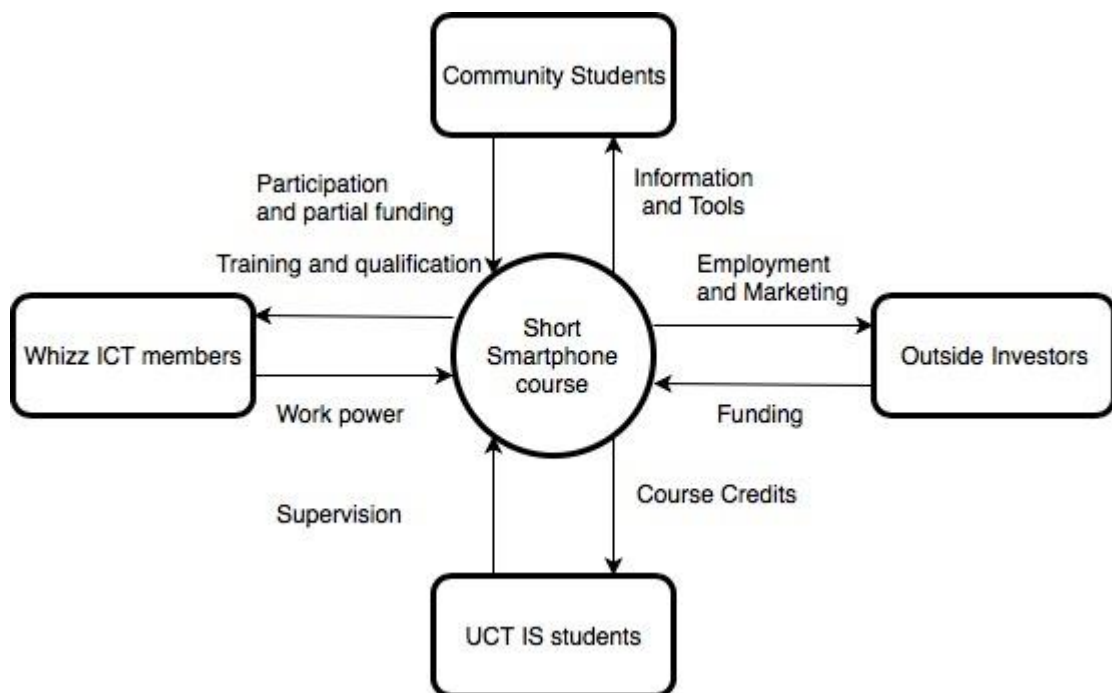
- To enhance the level of computer literacy among the community members and provide training at a lower cost.
- Also to find sponsors to provide funding for the course and cover all other related cost. This will help them create bonds with big companies which will assist them when they need help going forward.
- They want to be a recognised and trusted organisation, make profit, grow and outperform their competitors.
- Improve their marketing strategies while adapting new ways of marketing all their services to the community.

ASSUMPTIONS AND CONSTRAINTS

- We assume that the community will be willing to support and participate in the course offered.
- Difficulties in finding the venue that has all the required features by the department in order to get the course accredited.
- Meeting the course accreditation requirements and getting the department to agree on granting certificates for each provided level of the course.
- We assume that we will be able to get people to help to facilitate the course, hoping that UCT will be able to provide IS students to help and hope the students will agree to this.
- Currently no funding available to help with the planning and creation of the course levels, since the center needs to buy required and necessary equipment and pay its stuff.
- The free space that Whizz ICT have at their centre will be enough to run and facilitate the course.
- We assume the current strategy of Whizz ICT advertising will be enough to inform the people about the offered course and all the other services provided by the centre.

STAKEHOLDER ANALYSIS

The center of the entire project, thus the center of the Stakeholder Analysis is the Smartphone course. This is the core scope of the project. Involved in this project are: Community Students, Outside Investors, UCT IS Students and Whizz ICT Members. They all play a huge role, directly to the project as can be seen below in the diagram.



ALTERNATE SOLUTIONS

Option 1

Outsourcing the teaching space- Have the course offered outside the Whizz ICT centre. This can either be in places like high schools around Khayelitsha, community

halls or outside Khayelitsha in tertiary institutions where students from the IS department can partner with the whizz team to offer the course.

Option 2

Offer the course online(using a website or an App), people can either access the online version of the course using their smartphones at home or go to the Whizz centre for internet access.

Option3

Raise funds by having monthly competitions where people pay to enter the competition. This can be done by hosting events monthly where the team would teach people certain features on the smartphone and give out prizes to people who learn fast.

Option 4

Find accreditation for the whizz ICT centre in Khayelitsha and have the course held there. This will allow people in the area to attend the course without any transport complications. The course will be split in 3 levels; the beginner level, intermediate and the advanced level. The first 2 levels can either be given by the whizz ICT team or UCT students or mixture or both but the advanced level will be offered by trained Whizz ICT team.

RECOMMENDED SOLUTION

Get the business centre in Khayelitsha accredited and have the course held there. This then means people in the area will be able to attend the course and it will be given by either Whizz ICT members or UCT students or a mixture of both. The course will be split into 3 levels, namely beginner, intermediate or advanced.

These 3 levels will play a different and very important role on the learning of the students but all contributing to reach one goal,which is to ensure that the students

obtain the required skills and are able to use their mobile devices in a productive way, on the daily basis.

The Beginner Level

The course to be created is going to include the Beginner level, Intermediate level and the Advanced level, all these levels will play a different and very important role on the learning of the students but all contributing to reach one goal, which is to ensure that the students obtain the required skills and are able to use their mobile devices in a productive way, on the daily basis.

The Beginner level is the one that is going to cover all the basics with regards to using smartphones on a daily basis to accomplish task, which is also very important in building the foundation for the Intermediate and Advance levels. This course will offer students with smartphone training with regards to application installation, the use of the already installed application, the understanding of the phone operating systems, and other deep internal stuff.

This course may take maybe a duration of two weeks depending on other influential factors. During the duration of this course, students will be trained with regards to the important application that they must have on their phones, how to install and use them productively. This will also include the applications that comes with the phone, how to use them e.g. Gmail, how to write emails, google calendar, track your lost phone using your Gmail account etc. The other focus of the course is going to be with regards to the operating system of the phone. Training users on how manage the phone settings, with regards to things like reset settings your phone, software updates etc. The course will cover topics like how to manage the abuse of using social media, advice users about protecting their information everytime when going online. How to try to avoid things like hacking and password protection

The Intermediate Level

The intermediate level is intended for people who have little knowledge about how smartphones work or have completed the beginner level. These are the people who already know how to navigate through their smartphones and can perform basic functionality such as composing emails, installation and understanding of application , manage basic phone settings like changing display settings and date and time and to do software updates.

The intermediate level will build up from the beginner level however, people with

basic knowledge on smartphones usage can do this course without having to start from the beginner level.

Intermediate level includes:

- How to backup contacts, messages and applications.
- How to do software updates
- How and when to reset a phone.
- How to install and use mobile banking applications.
- How to use installed applications e.g instagram

This course level will also aid people who want to run businesses with their phone and these can be promoting using instagram, using a certain applications for editing pictures and blogging.

The Advanced Level

Mobile Development

Why should I learn Mobile development ?

For many individuals, smartphones are more than just a communication device – they have become indispensable parts of everyday life. Whether it be calls, texts, sending and receiving email, playing games, browsing the web, tracking nutrition, or scheduling important dates, smartphones have become an all-in-one device – thanks to the development of applications. Applications are at the heart of both the popularity and utility of smartphones, making mobile development an increasingly lucrative field.

The demand for new and innovative mobile apps continues to grow. Because of this rapid growth, there are plenty of opportunities for learners (potential employees) to work either as part of a company or on a freelance basis. Learners will therefore receive certification at the end of the course. The certificates will allow them employment and serve as evidence of competency.

What will I learn and for how long ?

Focus is to encourage learners to develop an understanding of the fundamental principles of mobile development and how computer programs work in mobile devices.

Learners will study topics including information representation, communication and Internet technologies, hardware and software development. As they progress,

learners will develop their computational thinking and use problem solving to develop computer-based solutions using algorithms and programming languages. Studying Mobile development will help learners develop a range of skills such as thinking creatively, analytically, logically and critically.

The course will extend over a 6 - 12 month period covering the fundamental basics of programming to designing mobile user interfaces. Learners may be developing a fully functional mobile application.

PROTOTYPING AND TESTING

Prototype

The prototype created for this course was as follows:

Registration process(same for all course levels): The beginner level of the course will initially register at the Whizz ICT center. On satisfactory completion of a previous level, will the registrant be allowed to register for the next course level.

Beginner Level:

- Modules(curriculum): Practical and Theoretical sections
- Course duration: 1 Day
- Course prerequisite: None
- Target Audience: This will be aimed at all ages, but mainly the older generation (40+)
- Learning outcome: Be able to use smart phone adequately and understand basic etiquette of smartphones in general and protection of the smartphone.

Intermediate Level:

- Modules(curriculum): Practical and Theoretical sections
- Course duration: 1 Week
- Course prerequisite: Either beginner level or passing a small test
- Target Audience: Middle Age (between 30-50)
- Learning outcome: Already having understanding on smartphones, now going into deeper settings, understanding how & why apps are made, gaining some theoretical knowledge on aspects in smartphones, the internet etc. Furthering their knowledge on the use of the smartphone for business.

Advanced Level:

- Modules(curriculum): Practical and Theoretical sections
- Course duration: 6-12 Months
- Course prerequisite: Intermediate level
- Target Audience: Younger generation and middle age (18-50)
- Learning outcome: Students of this course will learn mobile software development, integrating core skills in app generation and development in the course.

Testing

Method:

We communicated with the main stakeholder of the project, Tembinkosi. As well as asking a few different types of users of smartphones, including those from beginner level to expert.

Findings:

Tembinkosi provided us sound feedback in terms of our main course structure. He liked the solution and what we had brought forward and made slight changes in the outline of what was to be done. He also made choices between open ended options we had available. Thus allowing us to focus on what was really needed and come up with an adequate final product.

Along with Tembinkosi a few others were also interviewed and asked for feedback. They ranged from non-smartphone users, to advanced smartphone users. The non-smartphone and beginner smartphone users liked the idea of being able to learn more about smartphones - they especially appreciated the settings section as they would like to learn what these settings do and how they work.

With regards to the more advanced users, their main focus was the ability to gain key smartphone business skills from the intermediate and advanced levels of the course. It was found that most would like the accreditation of it and not only enhance practical but also theoretical skills.

Recommendations:

The main recommendations were to move the theoretical side of the beginner level to intermediate. This shift was made, however a small

etiquette section was kept in the beginner section as it is integral users understand this. As Tembinkosi would like to focus on a change in mentality of people to better themselves. In addition to this it was also recommended that the focuses of the intermediate and advanced course are on using your smartphone in business, learning how to equip yourself adequately in the smartphone industry, learning technical aspects of smartphones (including repairing) and/or the development of smartphone apps and the basic understanding of their structure and purpose.

OUTPUT AND EXHIBITS

The main output of this project is the course outline.

This being the 3 course levels namely: Beginner, Intermediate and Advanced.

Beginner Level:

- Modules(curriculum): Mainly a Practical section with some theory
- Course duration: 1 Day
- Course prerequisite: None
- Target Audience: This will be aimed at all ages, but mainly the older generation (40+)
- Learning outcome: Be able to use smartphone adequately - use of apps, understanding settings and understand basic etiquette of smartphones in general and protection of the smartphone.

Intermediate Level:

- Modules(curriculum): Practical and Theoretical sections
- Course duration: 1 Week
- Course prerequisite: Either beginner level or passing a small test
- Target Audience: Middle Age (between 30-50)
- Learning outcome: Already having understanding on smartphones, now going into deeper settings, understanding how & why apps are made, gaining some theoretical knowledge on aspects in smartphones, the internet etc. Furthering their knowledge on the use of the smartphone for business.

Advanced Level:

- Modules(curriculum): Practical and Theoretical sections

- Course duration: 6-12 Months
- Course prerequisite: Intermediate level
- Target Audience: Younger generation and middle age (18-50)
- Learning outcome: Students of this course will learn mobile software development, integrating core skills in app generation and development in the course. Alternatively, they could in unison or on its own learn how to repair smartphones and maintain them for a longer lifespan.

CHALLENGES AND LIMITATIONS

1. We have budget constraints as to what can be done.
2. Time limit due to project being due and semester ending- we could not include and make contact with as many sponsors as we would've liked to.
3. Other coursework hindering us from focusing solely on the project- it was sometimes difficult to schedule meetings as we all have different busy schedules. However, promises had to be made to ensure success of the project.
4. The team took a while to understand the scope of the project and what was expected from us.
5. We did not analyse skills that each team member has and as a result we didn't really know who was good at what and what skills each person brought to the project. Had we analysed each team members skills we could have achieved a lot for our project.
6. The team were slow to start due to not being used to using collaborative tools used for the project. This meant the team had to learn and then begin to use these tools. This took a while to be used efficiently.
7. The project required many face-to-face meetings due to the fact that to work on the project one always needed an internet connection and computer or laptop - which is not always available.