

“Russian-Up” English-Russian Translation Application for Travelers

By

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CERTIFICATION OF APPROVAL

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Approved:

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UNIVERSITI TEKNOLOGI PETRONAS

TRONOH, PERAK

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CERTIFICATION OF ORIGINALITY

This is to certify that I am responsible for the work submitted in this project, that the original work is my own except as specified in the references and acknowledgements, and that the original work contained herein have not been undertaken or done by unspecified sources or persons.

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BUSINESS INFORMATION SYSTEMS

ABSTRACT

Russian-Up is a mobile application on the Android operating system on smart phones that is designed to assist peoples who love travelling countries speaking Russian language, to enhance their knowledge in communicating Russian language while they are away. As most of people think that Russian language seem to be difficult to them, by using the device they will not face any problem. And this is one of the things that scared businesses, tourist and others peoples to travel to countries speaking Russian languages. Today with the development of technology in recent years have spawned a huge number of Android Smartphone users and this is the perfect opportunity to have an application that can help tourists, businesses and others peoples to have the basic of Russian knowledge. The interactive application enables users learning an experience that is enjoyable and requires practices, which evidently has been successful in teaching people. This application will hopefully and will give more interest and appreciation to users towards Russian language and will make life easier to them.

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CHAPTER 1

INTRODUCTION

1.1 BACKGROUND

It feels like consistently we open up web and see some new innovation being presented. New sites, PC applications and achievement gadgets are being conceived at a fantastic rate. It can be difficult to stay aware of the subtle elements of this advancement; however the general pattern, in any event, is unmistakable.

Innovation is going versatile. As of now our lives are flourishing with cell phones MP3 players, convenient PCs and, obviously, cell phones. There have been a few analysts demonstrated that utilizing cell phones as a part of the course can enhance learners' execution and move their inspiration. The significant focal points connected with cell telephones are the moderateness, versatility and intuitiveness.

This paper subtle elements one such application that deals with mobile adapting in taking in a second language. Language is essential for a country and each country has its own formal language. Generally, a Malaysian has the capacity talk in no less than two dialects which are Malay and English. As we are mindful, Malaysia draws in visitor from everywhere throughout the world, in the meantime you can see a Malaysian individual diverse parts of the world for travelling, studying and different purposes.

1.2 PROBLEM STATEMENT

1.2.1 PROBLEM IDENTIFICATION

Travelling and meeting new individuals from diverse parts of the world is very energizing and satisfying. Encountering other individuals' societies and ways of life are one of the reasons why individuals visit different nations. On the other hand, while going

by these spots, an absence of regular language is frequently experienced coming about to less contribution and experience of the said society and country.

Some take full courses to learn other languages; this is not generally the situation for the individual who meets expectations 40-50 hours a week. However these days, mobile phones and mobile applications are generally utilized and favored. A few of the mobile applications for taking in a dialect are broadly offered now in the android market. Correspondingly, these current applications are centered on conveying the users' direct interpretations of the rundown of sentences or expressions. This is to some degree plain and less working together. There is none so far that gives direction in taking in the dialect as indicated by what's vital and essential while likewise giving an intuitive learning background.

So how a traveler, who is visiting Russia or any Soviet Union countries, deals with language issues? Mostly they face the following:

- Do not have proper application to help travelers unless take few courses
- Non-Russian speaker cannot use any Russian applications, as they do not know the alphabet
- To provide mobile language solution for mobile devices that run on Android Operating System (OS).
- People prefer the application rather than carrying around books or hiring a guide

1.2.2 SIGNIFICANCE OF THE PROJECT

This project endeavors to add to a mobile application that would guide the users in taking in the essentials and what is important most in a language in a simple and intelligent way. Taking in a language adequately can be further improved by utilizing multisensory strategies as a part of the learning process. This could be a mix of visual and sound-related tangible that could help any learner animate their brains and catch their consideration.

With this mobile application, users have the mobility opportunity advantage accordingly anticipating learning activities and urging them to get to and utilize the application

considerably more. Likewise, with the centered substance and multi-tactile procedures, this will permit the client to practice what makes a difference in an intuitive way which is accepted to be a more compelling method for adapting speedier and less demanding.

In centered, with the assistance of the mobile application that this undertaking is amassed in creating and with the usage of the said procedures, it will be simpler and quicker for any client to realize what ought to be realized in Russian language, subsequently enhancing their engagement and association in the general public they are encountering in.

1.3 OBJECTIVES AND SCOPE OF THE PROJECT

This project is focused in developing a mobile application for android users with the implementation of techniques that were mentioned above. Additional features related to adaptive learning that provides instantaneous feedback for better learning are also included.

Below are the listed objectives for this project:

- To propose a Russian-English Translation Model for tourists who travel to Russia
- To develop a prototype of the mobile application to learning Russian language.
- To conduct user acceptance test on the developed prototype.

The scope of this study is divided into categories:

Target Group:

- Tourists, migrant workers, international students here in Malaysia.
- Target location for user testing would be international universities around Perak.

Focus topic:

- Discovering the best model in learning a language with a mobile device.
- Design and develop a Russian-English mobile learning application that attempts to help learners start conversing with the language.
- Application is for learners trying to learn Russian who can speak English.

CHAPTER 2

LITERATURE REVIEW

2.1 LANGUAGE LEARNING/TEACHINGS

Language, in the same way as culture, that other most human characteristic, is eminent for its solidarity in differing qualities: there are numerous languages and numerous societies, all diverse yet all in a broad sense the same, on the grounds that there is one human instinct and on the grounds that an essential property of this human instinct is the route in which it permits such differences in both language and society. It is evaluated that there are around 6,909 living dialects on the planet at this time (Lewis, 2009). Language learning is characterized as figuring out how to learn a language. Communicating begins right from start, when people begin corresponding with their infant. Learning a foreign language can be challenging at times to anyone, as one language is totally different than others. Moreover, learning and mastering a second language has turned out to be vital in today's general public to raise professions and correspondence. Individuals have taken activities to go to classes, purchase language learning books and even to move to different nations to find out about different languages.

Many people find it challenging to learn a second language, as it depends on their grasp of their first language (Baer, 2014). People tend to relate their own language to learn the other. And many times it is easier when new learner refers back to his own mother tongue to get help to create and develop his language system. Even though it is beneficial to the person to learn new term out of the second language, most of them are likely to prone to be influenced by their mother tongue. For instance, Spanish person would say “Is raining” rather than “It is raining”, he would not include the subject as it is know that in Spanish some subject can be left out. Teaching anyone a new language will require time and practice as it is, as it is a process of development of a new system in the human brain.

2.2 MOBILE ASSISTED LANGUAGE LEARNING

2.2.1 WHAT IS MOBILE ASSISTED LANGUAGE LEARNING?

We are living in the world where technology-supported devices are rapidly growing; as well as wireless communication is not news anymore in this respect. Smart phones with high capabilities has extended into all areas of our lives, surely, this kind of wireless computing devices soon will become accessible for everyone around the world. Hence, the use of this kind of inexpensive and at the same time very sophisticated devices has rather changed the learning systems in various ways. In fact, mobile learning can be considered as the next generation of e-learning (Sharples. M. 2000). However, smart phone or any kind of mobile devices are not just a substitute for current learning devices, just they can be used as an extension for learning in new environment having new capabilities, even though, not all learning content and activities are suitable for mobile devices (Gay, G,2001). Mobile learning is portrayed by its potential for figuring out how to be unconstrained, casual, customized and pervasive. Such learning is strengthened when individuals experience lack of spare time as the aftereffect of working longer hours. In this case, occupied individuals have a tendency to utilize mobile gadgets to learn new materials as opposed to requiring some serious energy for conventional classroom-based courses.

Advantages of Mobile Assisted Language Learning (MALL) can be flexibility, low cost, small size and user-friendliness; researchers are exploring how to use mobile technology to support language learning (Huang, 2012). Then again, there are likewise evident drawbacks, for example, little screen size, constrained presentation of graphics, and dependence on networks that may not always provide very high transmission capacity and might be subject to incontinence of many kinds. Despite such shortcomings mobile devices can indeed be beneficial tools for supporting student who wants to learn a new language. Kukulska-Hulme & Shield (2008) gave a seminal overview of MALL asking whether and how mobile devices support collaborative practice in speaking and listening. The study presented the two main approaches to MALL, content-related and design-related studies. These approaches still dominate in the literature, although the focus is

shifting towards design-oriented studies when creating authentic and/or social mobile learning environments (Wong, 2011).

Nowadays cell phones, for example, PDAs, telephones, and other handheld gadgets, are utilized all over for doing everything running from voice calling to making short message, feature visit, listening to sound (Mp3, Mp4, Mpeg), web surfing, shopping, and so forth. Aside from these profits, cell phones have progressively developed toward getting to be instruments for training also, language learning, and all its clients from educators or understudies are getting used to this environment to make education as ubiquitous as possible. Besides, the rising of web made open and separation taking in a method for getting training from all parts of the world. In a brief time, the engaging quality of separation learning prompted the acknowledgment that different cell phones give an exceptionally viable asset to instruction. Along these lines, numerous analysts attempted to make cell phones a rich asset for showing and learning. It was, indeed, a testing issue to cover learning errands by a cell telephone.

The last point that I must highlight is that any dialect learning application is all the more interesting when is executed in portable devise; user can convey it with him anyplace he goes.

2.2.2 MALL TECHNOLOGY

Like any other technology-enhanced language learning milieu, mobile assisted language learning may be face to face, distance, or online; further, they may be self-paced or calendar-based. Copaert (2004) underlines the significance of building up the language learning environment before choosing the part of mobile innovations and further stresses concentrating on the learner in front of the technology. Salaberry (2001) additionally contends against "technology-driven pedagogy," proposing that in spite of their progressive status, it is not pass that any present day innovation (e.g., TV, radio, the PC) has offered the same pedagogical profits as conventional second dialect guideline. Beatty (2003) offers a further caveat that "teachers need to be concerned about investing time and money in unproven technology" (p. 72).

Stipulations aside, advancements, mobile or otherwise, can be instrumental in language instruction. Ultimately, however, they are not all by themselves educators; rather, they are instructional apparatuses. Also, the compelling utilization of any instrument in dialect learning requires the insightful use of second dialect instructional method. Innovative cases of such applications—utilizing mobile phones, individual computerized aides, and portable digital audio players—are illustrated next.

Since their initiation, the measurements of phones have faded as much as their capacities have waxed. Common features of these gadgets now incorporate Internet access, voice-informing, SMS text-messaging, cameras, and even video-recording. In language learning, these features empower open language practice, access to credible substance, and assignment finishing. Despite the fact that examination of such uses is rare, it is not non-existent.

The use of telephones in distance language learning is not unique to m-learning. Twarog and Pereszlenyi-Pinter (1988) used telephones to provide distant language learners with feedback and assistance. In 1996, instructors at Brigham Young University-Hawaii taught a distance-learning English course from Hawaii to Tonga via telephone and computer (Green, Collier, & Evans, 2001). And Dickey (2001) utilized teleconferencing to teach an English conversation course in South Korea.

In their study, upper and lower level Japanese college understudies were put into three groups: PC email users, mobile phone email users, and mobile phone speaking users (because of expense, this latter got to be face to face speaking users). At that point they were given a pretest, three narrative tasks, three invitation tasks, and a repeated post-test. While all the face to face speaking users finished these undertakings in the time gave, just two sets of PC email users and one sets of mobile phone email users finished the tasks. The face-to-face speaking users had significantly faster performances, and the mobile phone email users had the slowest; however, the latter were not significantly slower than the PC email users. These differences were attributed to relative speed of typing versus speaking, and the relative speed of typing on mobile thumb pads versus keyboards. An interesting side-note was that the fastest mobile phone email user had told the entire story in only a single text-message. In general, fewer words were used by

mobile phone email users, yet they were able to communicate effectively. While the upper-level students' performance improved significantly on the post-test, this was likely due to a change in the post-test format for this group (since the pre-test required written translations, but the post-test consisted of multiple choice questions).

Several other free and commercial mobile language learning programs have recently become available: the BBC World Service's Learning English section offers English lessons via SMS in Francophone West Africa and China (Godwin-Jones, 2005); BBC Wales has similarly offered Welsh lessons since 2003 (Andrews, 2003); and an EU-funded initiative known simply as 'm-learning' provides English lessons directed towards non-English speaking young adults. The goal of such programs is to engage new kinds of learners (e.g., young, disabled) in a time and place of their preference (Godwin-Jones, 2005). Norbrook and Scott (2003) suggest that portability and immediacy, rather than localization, are the essential motivating factors in mobile language learning. Further, lessons are provided in bite-sized format, a fact appealing to busy students (McNicol, 2004). Lessons are typically delivered several times a week or even daily, include translations, and provide options for further context based applications.

Smart phones which consist of graphic and processor capacities, the presentation of pictures and features are esteemed great in correlation to PCs. The sound nature of cell phones is additionally superior to the old mobile phones and this has prompted huge measure of engineers venturing up to assemble numerous applications for cell phones. Designers for language learning each have their own target users, for example, the children, travelers and dialect lover. The enhanced (and as yet enhancing) particular of feature, picture and sounds for cell phones guaranteed a decent future for applications that help language learning. Individuals who need to take in another language needs to continue being keen on adapting, particularly on the off chance that they need a portable learning.

A special sort of cell telephones or PC, which is the tablet, is additionally genuinely new and has rising prominence all far and wide. Samsung Galaxy Tab, iOS' iPad, and Blackberry Playbook are among the samples of well known tabs in the business sector. It is greater than cell phones, at the same time less than laptops. This innovation capacities

precisely like a cell phone however with more extensive screens. Like the cell phones, a great deal of utilizations has been produced for the tablets that empowers client to appreciate more extensive screen to watch Medias, and to play diversions with. A considerable measure of language learning applications have additionally been produced for tablets clients.

Before the cell phones and tablets were made, the Internet was the innovation that individuals utilized for language learning. Messages, which users used to send computerized message to someone else's email helped a ton in the spread of lessons to students. These days, such system is getting to be obscure, as a lot of additionally intriguing and less demanding methodology has been produced to learn utilizing the Internet. A lot of designers made sites that fuse sight and sound and diversions to impart teachings on language. A few designers additionally transferred numerous printed lessons for users to download and print out. With Macromedia Flash, streak features and activity which is easy to created is utilized a great deal to pull in users' consideration and investment. This has been exceptionally helpful to language learning and with the Internet; users are not restricted to only one sort of language to learn.

These are some of the innovation that are prominent and as yet enhancing, under Mobile Assisted Language Learning. A percentage of the current applications for portable innovation will be talked about in the following segment.

2.3 EXISTING MOBILE APPLICATION ON LANGUAGE LEARNING

There are many of language learning applications that have been created for cell phones, tablets and the Internet. Some of these applications even run on each of the three platforms. Followings are few examples of the mobile applications:



Figure 1: English Russian Dictionary Free (Google Store)

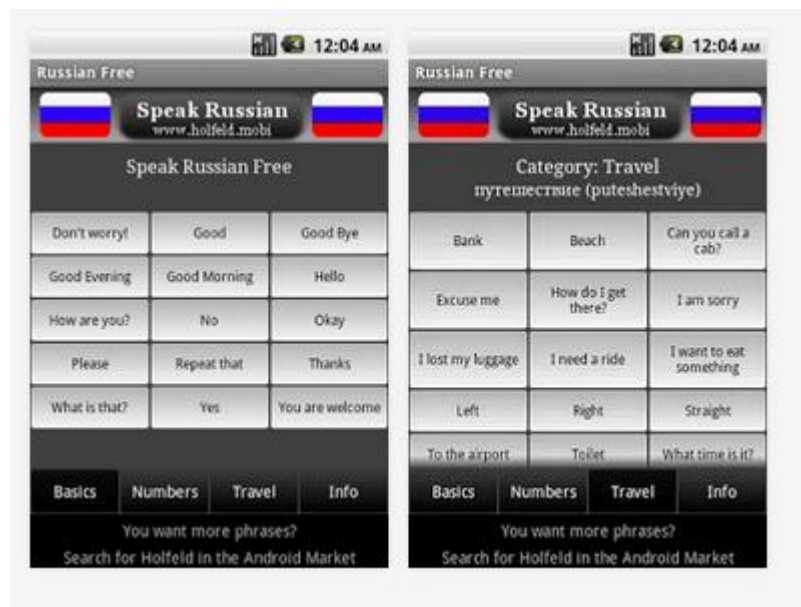


Figure 2: Speak Russian Free (Google Store)

iSpeak Russian – Translator

By Future Apps Inc.

Open iTunes to buy and download apps.



[View in iTunes](#)

Description

Welcome to iSpeak 3.0! This brand new version c
iOS 6 as well as all the new Apple devices. We ha
iPhone 5 and iPod touch, and created an even be

[Future Apps Inc. Web Site](#) ▶ [iSpeak Russian – T](#)

What's New in Version 3.0.1

Welcome to iSpeak 3.0!

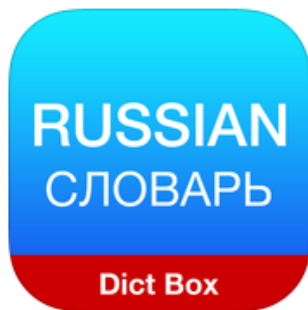
-Fully optimized and compatible with iOS 5&6

Figure 3: iSpeak Russian (Apple Store)

Russian English Dictionary Box with Wordbook & Translator

By Xung Le

Open iTunes to buy and download apps.



[View in iTunes](#)

Description

Dict Box is a *powerful, comprehensive, offline* dictionary/translator app with *si
iPhone/iPad.

[Russian English Dictionary Box with Wordbook & Translator Support](#) ▶

What's New in Version 10.9.1

- Two fingers tap for quick search
- Fix auto suggestion bug
- Better UI

Figure 4: Russian English Dictionary Box (Apple Store)

Name	<i>Eng. Rus. Dictionary</i>	<i>Speak Russian</i>	<i>iSpeak Russian Trans.</i>	<i>Eng. Rus. Dictionary Box</i>
Cost	free	free	\$1.99	free
Usage	Rating(4*), less than 600 downloads	Rating(4), over 2,000 downloads	Rating(4*), downloads are not specified	Rating(4*), downloads are not specified
Advantages	<ol style="list-style-type: none"> 1.Wide range of words 2.like a mini dictionary 	<ol style="list-style-type: none"> 1.Good for travelling 2.No need to learn the language 	<ol style="list-style-type: none"> 1.Translates to voice 2.Translates from voice to words 	<ol style="list-style-type: none"> 1.Translates to voice 2.Wide range of words
Disadvantages	<ol style="list-style-type: none"> 1.Non-Russian speaker can't use 2.Need to learn alphabet 3. Does not teach 4. Tourist can't use 	<ol style="list-style-type: none"> 1.Very short range of words 2.It requires more improvement in terms of phrases 3.Tourist can't rely on this app only 	<ol style="list-style-type: none"> 1.User needs to pay per download 2.Simple words only 3. It requires more improvement in terms of phrases 	<ol style="list-style-type: none"> 1. Non-Russian speaker can't use 2. Very short range of words 3. Tourist can't rely on this app only

Table 1: Comparison of Existing Mobile Applications

2.4 RUSSIAN LANGUAGE LEARNING

2.4.1 RUSSIAN LANGUAGE BACKGROUND

Russian fits in with the gathering of Indo-European languages, and is subsequently identified with Sanskrit, Greek, Latin, and additionally the present day Germanic, Romance, and Celtic dialects, including English, French, and Gaelic. Composed samples are surviving from the tenth century C.E. onwards.

While it saves quite a bit of its antiquated manufactured inflexional structure and a Common Slavonic word base, present day Russian offers an expansive load of the global vocabulary for governmental issues, science, and innovation. A language of political significance in the twentieth century, it is one of the authority dialects of the United Nations.

Russian is basically talked in Russia and alternate nations that were once constituent republics of the USSR. Until 1917, it was the sole authority dialect of the Russian Empire. Amid the Soviet period, the approach toward the dialects of the different other ethnic gatherings varied by and by. Despite the fact that each of the constituent republics had its own particular authority dialect, the bringing together part was held for Russian. Taking after the separation of 1991, few of the recently free states have firmly demoralized Russian. It has clung to its part as the dialect of basic intercourse all through the district. Despite patriotism and moving political partnerships all through the CIS, this status may decrease later on.

In the twentieth century, it was broadly taught in the schools of the individuals from the old Warsaw Pact, and in different nations impacted by the USSR. Russian is likewise talked in Israel by 750,000 ethnic Jewish migrants from the previous Soviet Union (1999 evaluation). The Israeli press and sites consistently distribute material in Russian. Sizable Russian-talking groups (totaling in the many thousands) likewise exist in North America, and, to a lesser degree, in Western Europe. These have been encouraged by a few waves of wanderers since the start of the twentieth century, each with its own kind of dialect.

The relatives of the Russian émigrés, on the other hand, have had a tendency to lose the tongue of their progenitors by the third generation.

History of Russian Language

A lot of what we think about the sources of the Russian language is established in the endeavors of students of history and etymologists to dig into the riddle of the past. At some point around 3500 to 2500 BC the individuals who talked the dialect known as Indo-European started slowly to structure vernacular groups and separate from one another. As the Indo-European tribes moved "toward the West and toward the East... The Slavic tribes got to be divided from the mass of different tribes and added to their own particular dialect, which is called Common-Slavonic or Proto-Slav. These tribes settled in the heart of present-day Eastern Europe and kept on utilizing commonly comprehensible regional structures for a considerable length of time.

In pretty nearly 500 AD the Common-Slavonic talking people groups divided into Western, Eastern, and bunches, with the Eastern Slavs in the long run discovering their home close to the Dnieper River in the region of present-day Ukraine . The date can't be determined for certain, on the grounds that, as Kiparsky reminds us, "our first exact verifiable data concerning the East Slavs dates from the ninth century" [15]due to the absence of composed records. As of now, as per old records from different sources, the Eastern tribes of Slavs were known as the Antes individuals. The root of the expressions "Slavic" and "Slavonic" has not been resolved [15].

At some point between this partition of the three limbs of Slavs and the present day, the Eastern Slavic or Old Russian dialect separated into three extra real tongue bunches, referred to today as Ukrainian, Byelorussian, and Russian. Kiparsky states that, albeit a few varying theories exist as to the sequence of these progressions, he accepts that proof in view of composed records focuses to the development of Ukrainian as being at some point after 950 AD. Because of different political complexities, be that as it may, it was not until 1906 that Ukrainian was authoritatively perceived as a different dialect.

The date of Byelorussian being viewed as a dialect in its own particular right is clearer. As Kiparsky notice, it "is not talked about as a free dialect until after the Russian Revolution of 1917" when the populace of Byelorussia intentionally proclaimed themselves "'autonomous' and made for themselves an abstract dialect in light of the south-western tongues of the Minsk region" [15].

In spite of the fact that these two tongues of Old Russian are today perceived as unmistakable dialects, several different vernaculars are still considered piece of the immense geographic territory where Russian is talked. This domain "now stretches out from Koningsberg [Kaliningrad] to the Diomedes in the Bering Strait and from the North Pole (perception posts) to the Persian wilderness" [15]. This colossal dialect custom crossing a huge piece of the globe speaks to hundreds of years of semantic change.

2.4.2 DISCUSSION & REFLECTIONS

Deriving from the different research made, Learning Russian language that will run on Android working framework is an extraordinary thought and ideally compelling in supporting Russian language figuring out how to individuals. An application that is focused for tourists and business individuals will need to be compelling and intelligent to draw in client consideration and to hold their advantage.

There are a ton of elements to be considered in place for the application to be fruitful. Moreover, the transitional dialect utilized needs to be redress, for this situation, it is the English dialect. The configuration of each of the pages or screens needs to be basic and succinct. Past comparative applications needs to be examined and criteria that are distinguished to be discriminating in building a viable application ought to be incorporated in this application as well.

CHAPTER 3

METHODOLOGY

3.1 RESEARCH METHODOLOGY

The system chosen for this application is Rapid Application Development (RAD). This methodology is chosen due to the time constrain of this project, which in total is less than 10 months, which is very short. This task obliges a fast prototyping which will include systems for improvement and programming prototyping. Aside from that, this venture is additionally an information driven data venture where it obliges information as the info to produce results.

This methodology is additionally chosen because of any conceivable outcomes of functionalities and execution bargaining with a specific end goal to permits a faster advancement process. The profits of utilizing this system is that it permits any adjustments to be made amid the improvement stage if there is a need to audit and recheck at some other period of undertaking advancement. This is critical as it gives adaptability all through finishing the application, for example, debugging procedure. Under this methodology, the entire project will be divided into four fundamental stages, such as below.

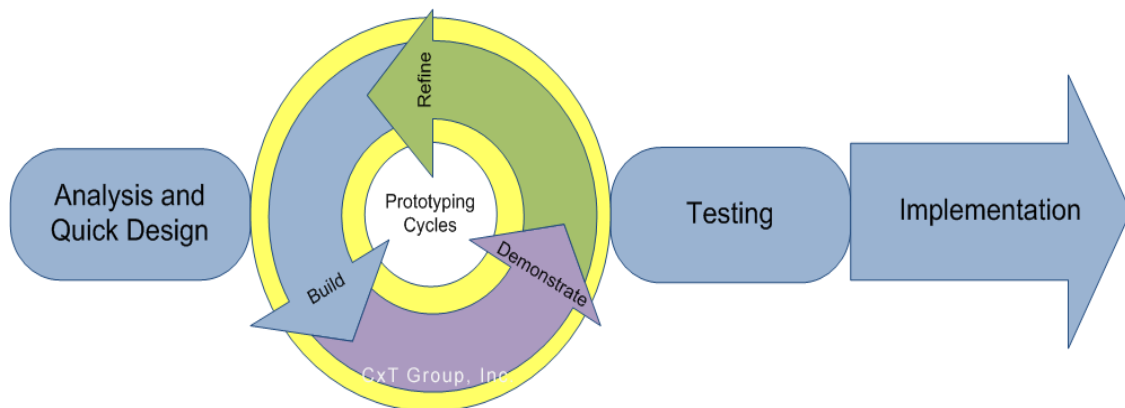


Figure 5: Rapid application development structure [Software Development Process Model]

- ❖ Analysis and Quick Design Phase
- ❖ Prototyping Cycles (Building, Refining, and Demonstrating process)
- ❖ Testing Phase
- ❖ Implementation Phase

3.2 PROJECT ACTIVITIES

This project manages the learning of language. I have to have access to reading materials, such as articles, research papers, books and etc to be able to see all the more on my subject. I will pick a few individuals, inside and outside my family circle and my friends who are currently living in Russia to ask about accuracy and authentic of the terminologies that I may use inside my application. Since my referrals are all in traveler and business individuals, my just alternative of speaking with them would be through online instruments, for example, messages furthermore phone calls.

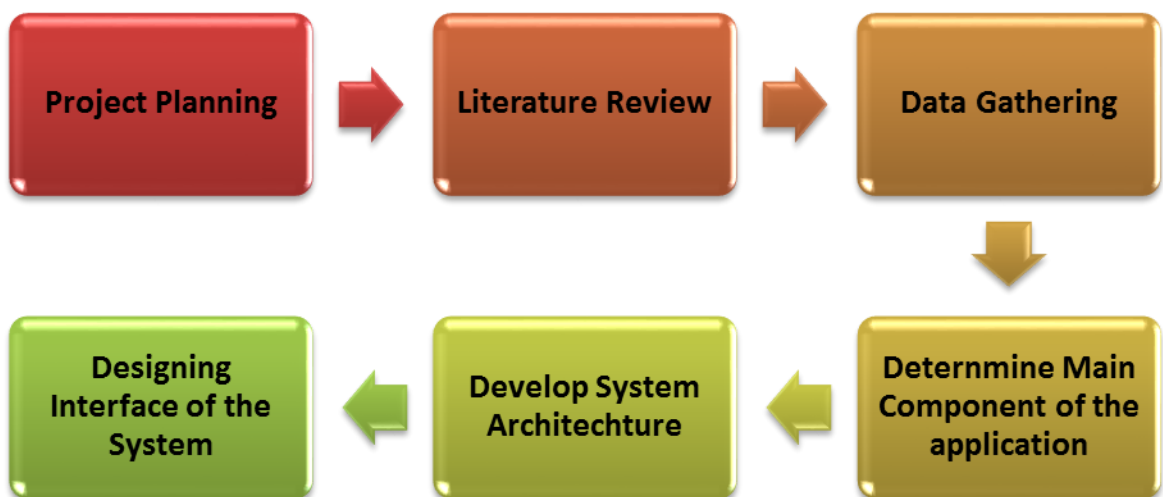


Figure 6: Research Methodology

The project activities for the development of Russian-Up mobile application utilize the software development methodology processes as follow:

3.2.1 PLANNING

Planning in the RAD life cycle incorporate both the planning and analysis phase in a traditional System Development Life Cycle. The planning and analysis phase is carries out concurrently to speed up the process of developing an initial system prototype for stakeholders. The stakeholders can therefore interact with the initial system prototype and provide feedback to allow the author to perform further amendments on the requirements needed. Basically, this phase circulates around the tasks of requirements planning below:

3.2.1.1 DEFINE RESEARCH PROBLEM AND OBJECTIVES

Project planning includes recognizing the problem statement and listing down the objectives for the project. It is also the stage of distinguishing the application scope which incorporates the target user, proposed development platform, and feasibility of the task.

3.2.1.2 REVIEW CONCEPTS/THEORIES/PREVIOUS RESEARCH FINDINGS

Performing literature review is to examine past study on the point, for this situation, Russian language learning; past study on other language learning devices, and examining comparative existing applications. This is to come up with a fitting framework for the project development, including the application content (modules) furthermore the user interface. Literature review serves to list out the strengths and weaknesses of past language learning tools furthermore existing mobile language learning application.

3.2.1.3 DATA GATHERING/COLLECTION

Data gathering have been performed to accumulate the necessary information for the project requirements.

Online Pre-survey

An online pre-survey has been conducted with 70 respondents randomly in order to understand the current application status and usage, people awareness of the language, knowledge of the country itself and willingness to visit. The online survey questionnaires were made up of a series of multiple choice questions and likes scale questions.

3.2.2 ANALYSIS

Analysis phase highlights on the feasibility study to determine whether the project is applicable to proceed. It also intertwined with the planning phase to analyze the requirements that have been gathered previously. And those are the followings:

3.2.2.1 LITERATURE REVIEWS/CONCEPTS/THEORIES COLLECTED

While analyzing the literature review it is very important to determine the specification of functional requirements and technical workflow for the project. Also to ensure the existing research is valuable enough to proceed as well as its feasibility within the time frame given.

Building application in App Inventor

Building application in App Inventor consists from 2 phases:

1. Designing Application outlook in App Inventor Designer
2. Development in App Inventor Blocks Editor

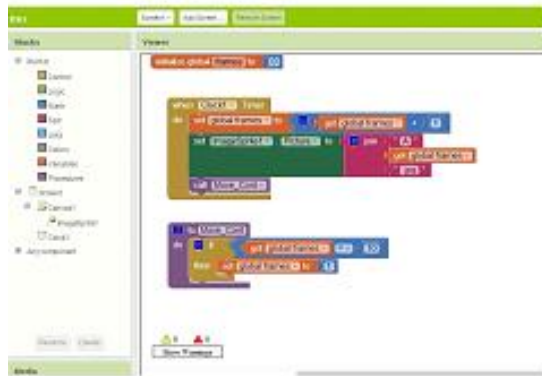
Accessing Google App Server



Designing the App with MIT App Inventor



Editing the blocks using App Inventor Blocks Editor



Android Phone



Figure 7: App Inventor development diagram

Designing in App Inventor Designer

Application Inventor Designer is program based application, where you select the segments of your application, which are differentiated into six classifications. Application Inventor segments are found on the left hand side of the Designer screen under the title Palette. Parts are the essential components you use to make applications on the Android telephone. A few segments are exceptionally straightforward, in the same way as a Label part, which simply indicates message on the screen, or a Button segment that you tap to start an activity. Different segments are more expand: a drawing Canvas that can keep still pictures or activities, an accelerometer (movement) sensor that works like a Wii controller and recognizes when you move or shake the telephone, parts that make or send instant messages, parts that play music and feature, segments that get data from Web sites, etc.

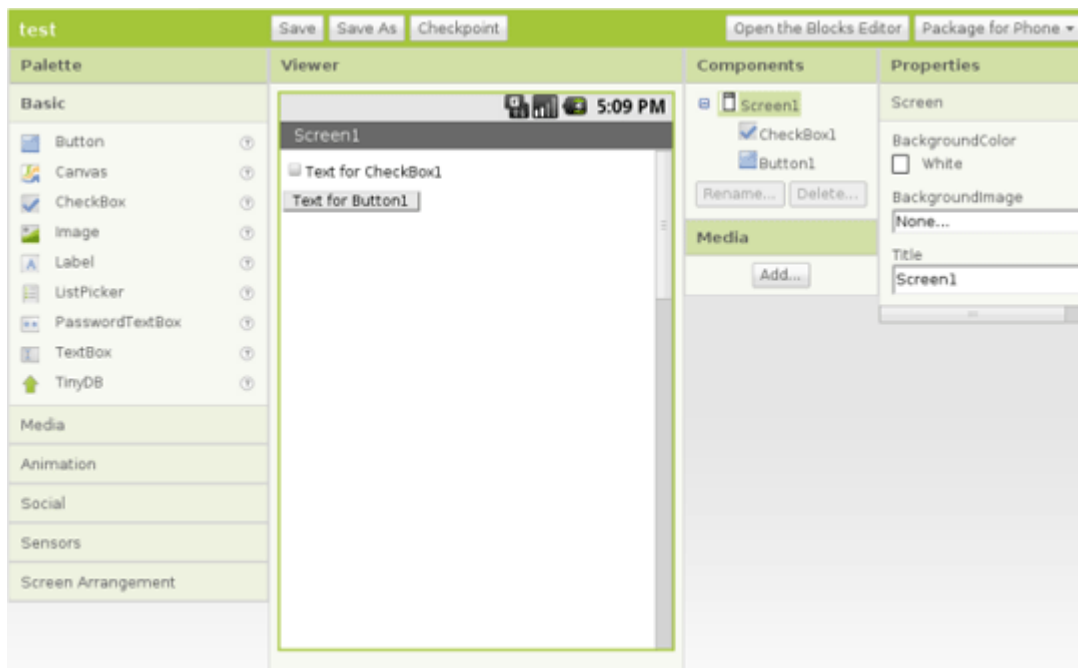


Figure 8: Interface of App Inventor [MIT App Inventor]

3.2.2.2 DATA COLLECTED FROM ONLINE PRE-SURVEY

All the data collected from the people will be analyzed thoroughly in order to understand the problems and the needs of the users. The analyzed data will be used in the development phase of the application.

Kindly proceed to chapter 4 to review the results of pilot study.

3.2.3 DESIGN

For the user design part, the development of the system architecture is based on the survey and analysis has been done on earlier phase, will be conducted. System processes, inputs, outputs, technical workflow as well as the user interface design of Russian-Up mobile application will be carried out iteratively with constant refinement from time to time across the two semesters of the study to ensure it meets the system specifications and subsequently, provide a solution to solve the problems might occur in the development phase.

To use a component in your app, you need to click and drag it onto the viewer in the middle of the Designer. When you add a component to the viewer, it will also appear in the components list on the right hand side of the viewer.

Components have properties that can be adjusted to change the way the component appears within the app. To view and change the properties of a component, you must first select the desired component in your list of components.

To develop the modules for the application, I have listed out the desired modules to be included in the application:

- ❖ Expressions
- ❖ Arrival, Hotel
- ❖ Eating Out
- ❖ Shopping
- ❖ Hospital
- ❖ Asking for Directions

The correctness of the term will be cross-checked with a Russian dictionary.

In App Inventor Designer developer needs to drag and drop elements from the given categories onto the screen, where they can be arranged vertically or horizontally, assignment label text or background image, component visibility, size or color. Settings for editing particular components vary from one to another.

In this phase, the correctness of the Russian vocabulary in terms of spellings and usage in the correct context and situation is analyzed and designed accordingly.

Russian-Up System Diagram

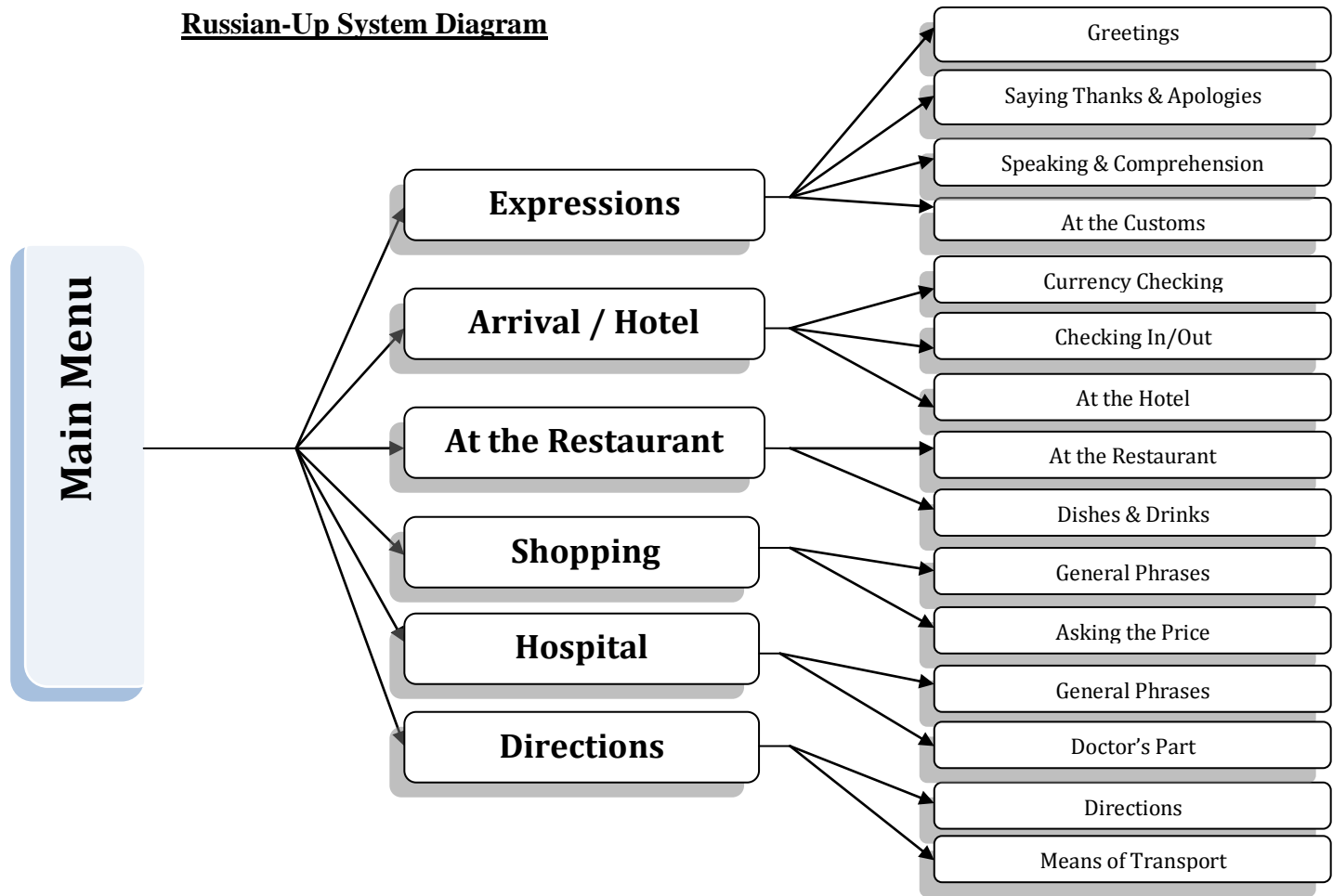


Figure 9: System Diagram

3.2.4 DEVELOPMENT TOOLS

Basic tools needed in order to complete this project are:

- ❖ Hardware
 - ✓ Personal Computer for Coding
 - ✓ Android device (smartphone) for testing purposes.
- ❖ Software
 - ✓ MIT App Inventor
 - ✓ Android SDK

3.2.4.1 DEVELOPMENT IN APP INVENTOR BLOCKS EDITOR

The blocks editor uses the Open Blocks Java library for creating visual blocks programming languages. Open Blocks is distributed by the Massachusetts Institute of Technology's Scheller Teacher Education Program (STEP) and derives from master's thesis research by RicaroseRoque. Professor Eric Klopfer and Daniel Wendel of the Scheller Program supported the distribution of Open Blocks under the MIT License [22]. Open Blocks visual programming is closely related to the StarLogoTNG, a project of the Klopfer's STEP, and Scratctr, a project of the MIT Media Laboratory's Lifelong Kindergarten Group. These projects are themselves informed by constructionist learning theories, which emphasizes that programming can be a vehicle for engaging powerful ideas through active learning.

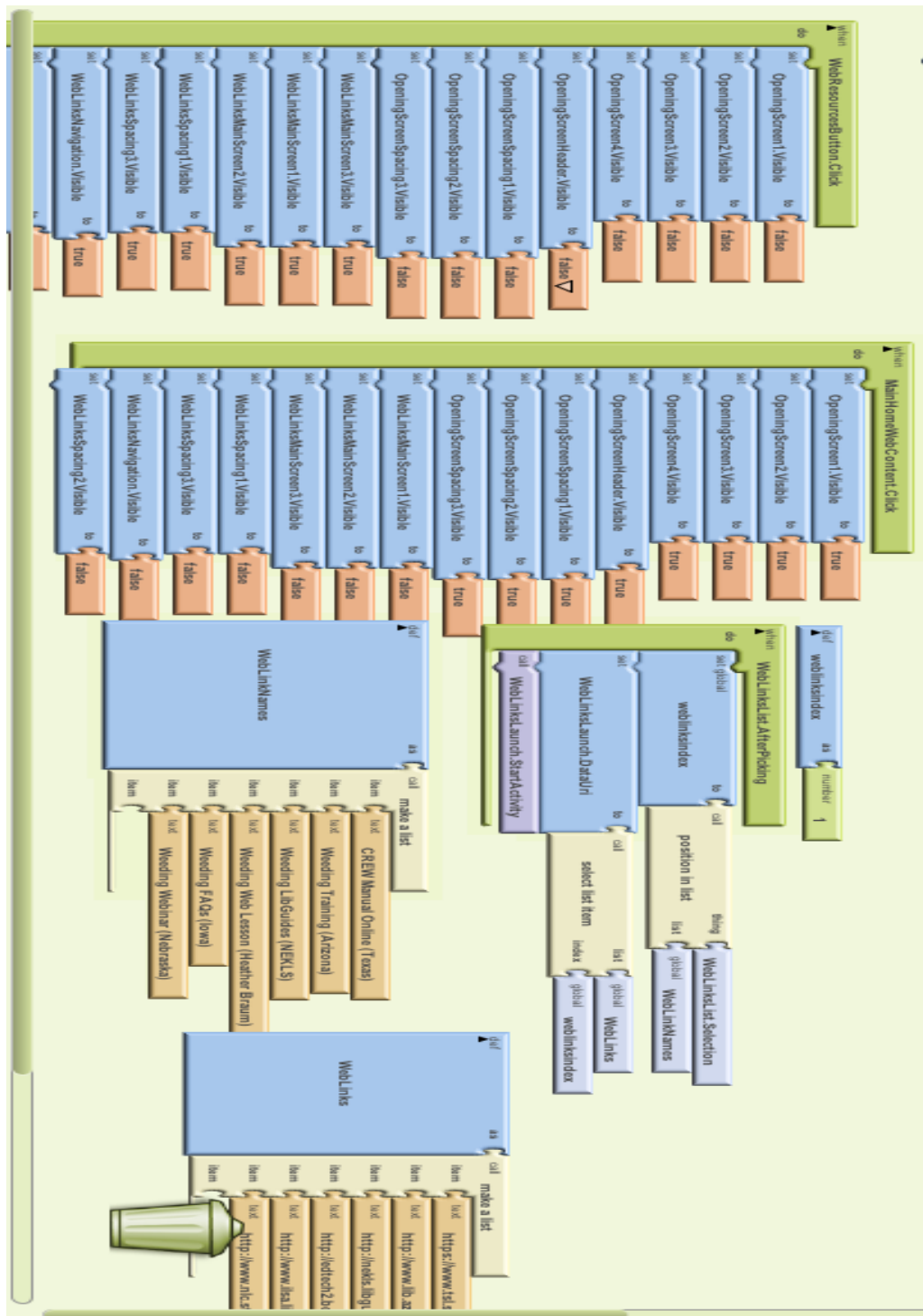


Figure 10: Interface of App Inventor's Block editor [MIT App Inventor]

3.2.4.2 ASSEMBLING PROGRAM BLOCKS

The Designer is one of three key instruments you'll use in making android application; the second is the Blocks Editor. The third is the telephone or emulator. Squares Editor is utilized to dole out practices to your segments, for example, what ought to happen when the client of your application taps a catch or picture.

The Blocks Editor runs in a different window. When you click Open the pieces editorial manager from the Designer window, the Blocks Editor's Java project record ought to download and run.

It's encouraged to run emulator or interface telephone to the PC after that click on "Connect to the device" catch, which will stack your product onto the screen of your emulator or telephone, where you will have the capacity to test it all the while during the time spent improvement. Your creating application will be showing up on the telephone or emulator screen regulated as the pieces are added to it. At the point when advancement is of use is done delivering a stand-alone application for establishment is conceivable.

A few choices are accessible as well, either to download to PC or send the application straightforwardly into the telephone's memory and introduce there.

3.2.4.3 INTEGRATION AND TESTING

After Block in Block editorial manager were assigned with its tasks, developer can survey viewpoint of his application in the emulator and test it. In emulator you can test everything, including the modest database, media player that plays sounds and music, catch press, finger swipe and numerous others. However the main minor issue that creator has experienced is exchanging between numerous screens, which at present slacks and doesn't work in Emulator. Be that as it may in the wake of introducing programming into the telephone, everything works superbly.



Figure 11: App Inventor's Android phone emulator [MIT App Inventor]

Application Inventor lets you create applications for Android telephones utilizing a web program and either a joined telephone or emulator. The App Inventor servers store your work and help you stay informed concerning your ventures.

3.2.5 USER TESTING

In this stage, there will be testing of usability of the mobile application. However, it won't be conducted only once but throughout the whole process to see if the project is being done will be appropriate for the target group. Feedbacks from target group of Russian-Up mobile application on the aspect of friendliness, effectiveness in tourists' lifetime spend in Russian speaking countries.

3.3 PROJECT ACTIVITIES AND KEY MILESTONES

The Key Milestones for the development of Russian-Up mobile application in FYP1 & FYP2 are listed in the table below:

	Project Activities	Key Milestones
1	Selection of Project Topic	Submission of interim report
2	Identify and clarify research element and system objectives	Proposal defense
3	Read research works, journals, papers, articles etc.	
4	Requirement gathering and analysis identify research methodology to be used	

Table 2: FYP1 Milestones

	Project Activities	Key Milestones
1	Designing and prototyping	Pre-SEDEX(13 July 2015)
2	Implementation and delivery	Dissertation softbound(29 July 2015)
3	Testing	VIVA
4	User evaluation	Final dissertation hardbound (2 September 2015)
5	Writing of dissertation	

Table3: FYP2 Milestone

3.4 GANTT CHART

	Activities	January	February	March	April	May	June	July	August
1	Literature Review								
2	Data Collection								
3	Start Coding								
4	Software Implementation								
5	Testing								
6	Project Thesis writing								
7	Submission								

Table 4: Gantt Chart

CHAPTER 4

RESULTS AND DISCUSSIONS

This chapter mainly focuses on the analysis and discussion the results collected throughout the development of the Russian-Up mobile application. The critical analysis of the results and discussions will be used to determine the achievements of the Russian-Up mobile application in relevance with the objectives of this research paper.

4.1 RESULTS OF THE PILOT STUDY

Pilot of the project has already started before proceeding to the development of Russian-Up mobile Application with the aim to obtain practical information related to the project as well as the desired functionalities and needs from the targeted users of the Russian-Up mobile application. The pilot study was conducted in form online survey and there were 70 respondents. The survey is attached in Appendix B.

Question 1: How often do you travel abroad?

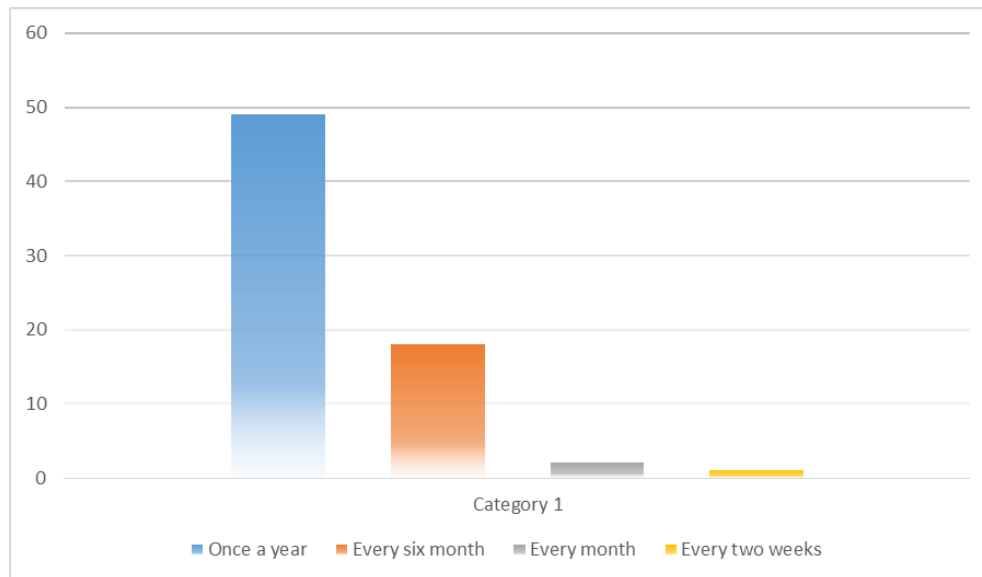


Figure 12: Percentage of Travelling Frequency

From this survey I have learned that even though most of the people would not travel as often, still they do travel at least once a year. My respondents were mostly students, who has to go back to their home countries, so most number lays on the once a year and least to every two weeks only one respondent is currently working with agencies which will require him to travel more than others. So this means that there are some chances of any of the respondents ending up in Russian speaking countries.

Question 2: Have you ever been to Russia and Russian Speaking Countries?

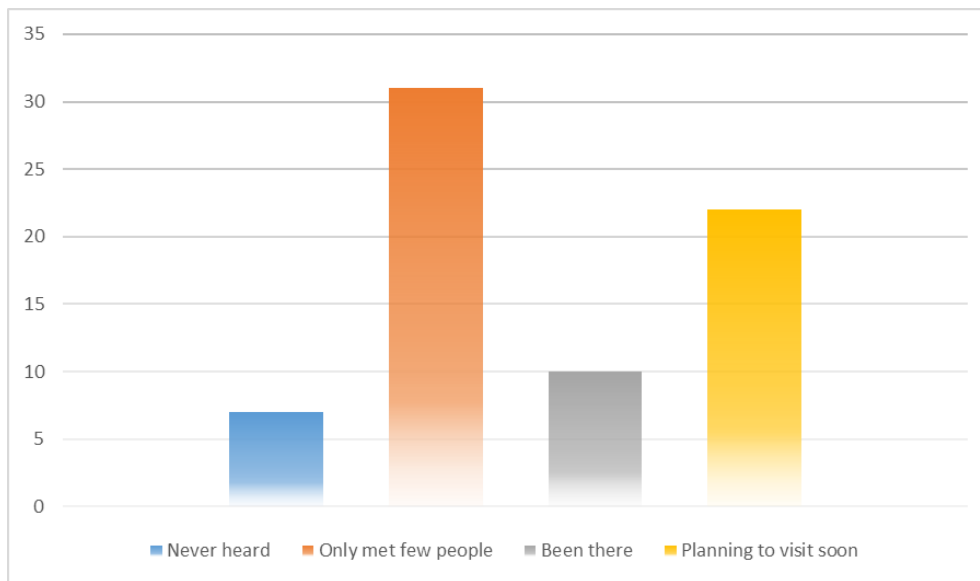


Figure 13: Percentage of Visiting Russia

This category of question differs from race to age and how often they have been abroad. Interestingly, there are still some people who never have heard of Russia, still more than 50% of the people gave positive answer, saying they have met at least one Russian person in their lives. 14.5% of the respondents said that they have been to Russia and 31.4% said they are in fact, planning to visit Russian in near future.

Question 3: Do you know Russian Language?

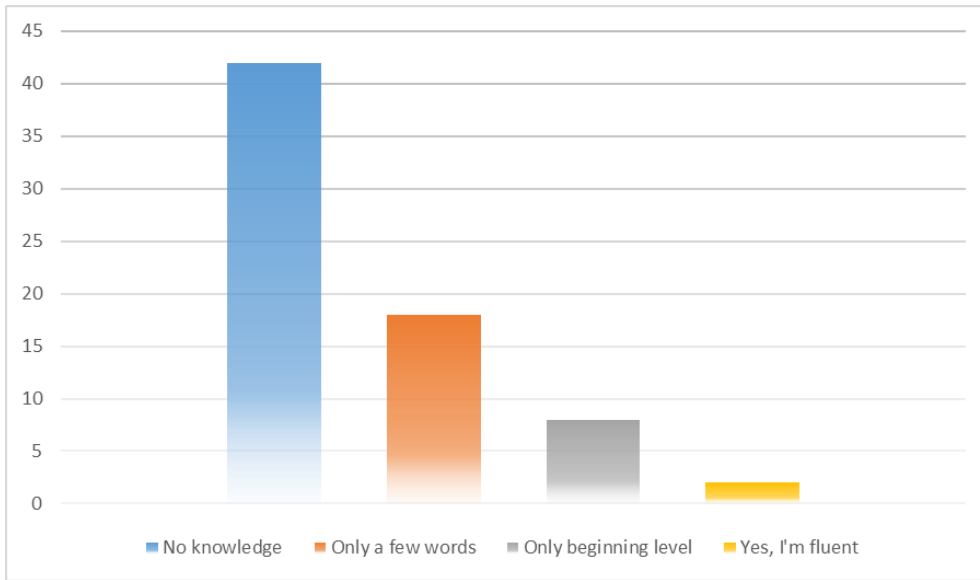


Figure 14: Percentage of Knowing Russian Language

As we can see from this chart most of the people have no knowledge of the language or only know a few words. So 85.7% of the times people would need tany translator would to keep basic communication.

Question 4: Do you normally use mobile applications?

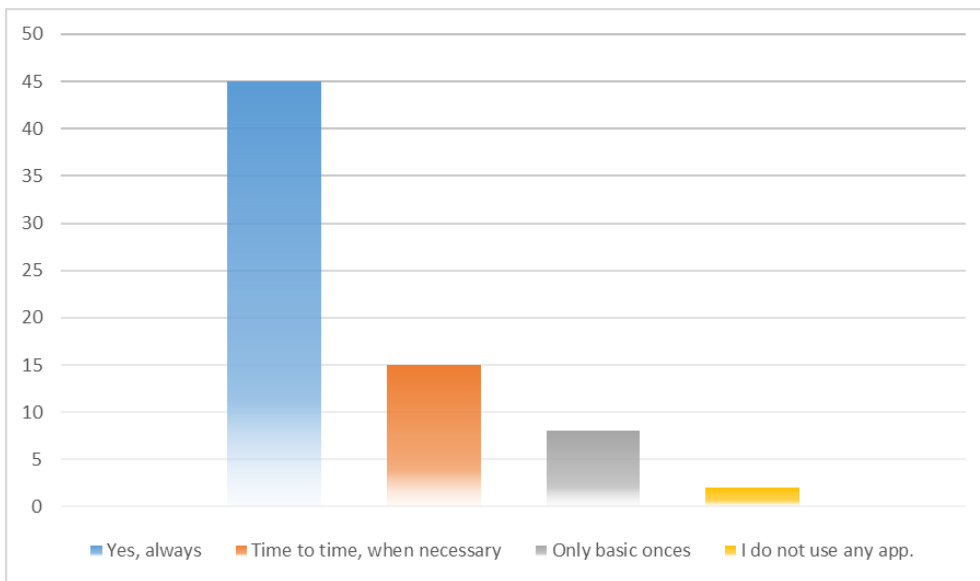


Figure 15: Percentage of Using Mobile Application

From this chart, I concluded that most of the people heavily rely on mobile application daily, in this case was 64.3% of the time. And the people who do not use applications are only 2.86%, due to their own reasons.

Question 5: If you were to be in foreign speaking country, what means of communication would you use?

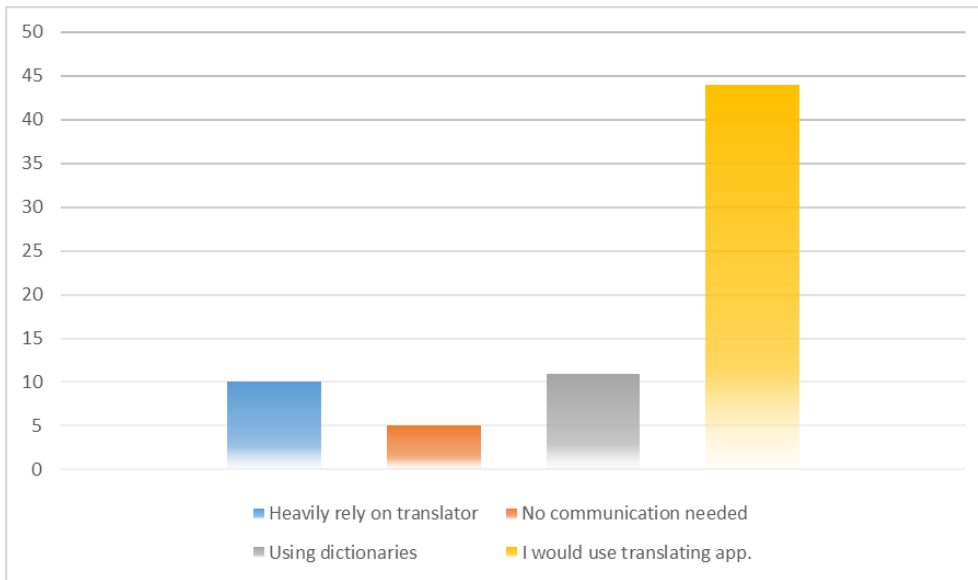


Figure 16: Percentage of Means of Communication

Surprisingly, 85.7% of the people responded by saying “I would use translating app.”, meaning people rather use mobile applications in their daily lives than relying on the translator or just hoping to get by with least communication as possible.

Question 6: Would you rather have translator or learning application?

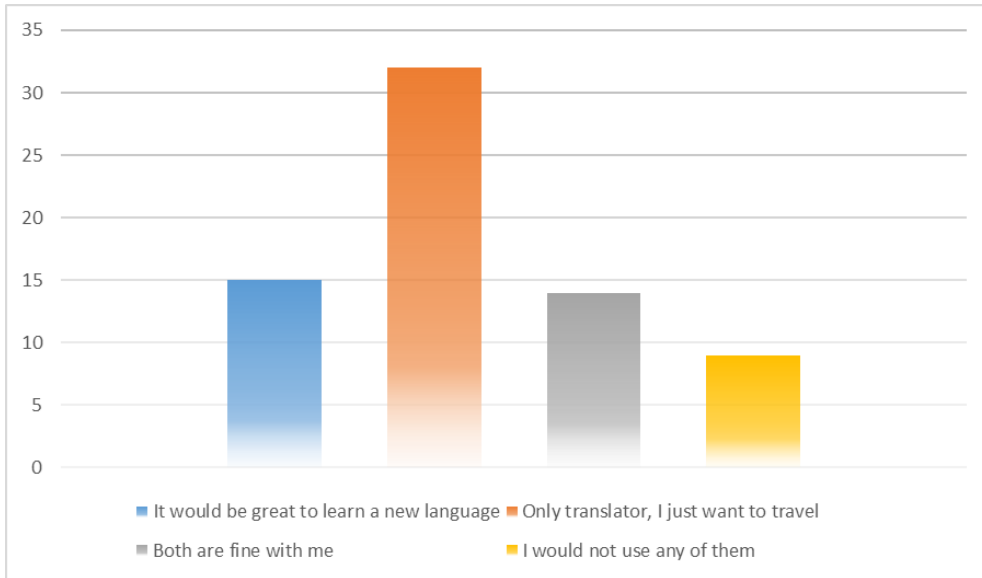


Figure 17: Percentage of Preference Translator over Learning Application

After learning this chart, I can say that 21.4% and 20% of the respondents would either like to get learning application or are fine with both cases. And almost half of the people said that they rather go and enjoy traveling rather than spending time to learn a new language.

Question 7: Do you think you would use a sound element also?

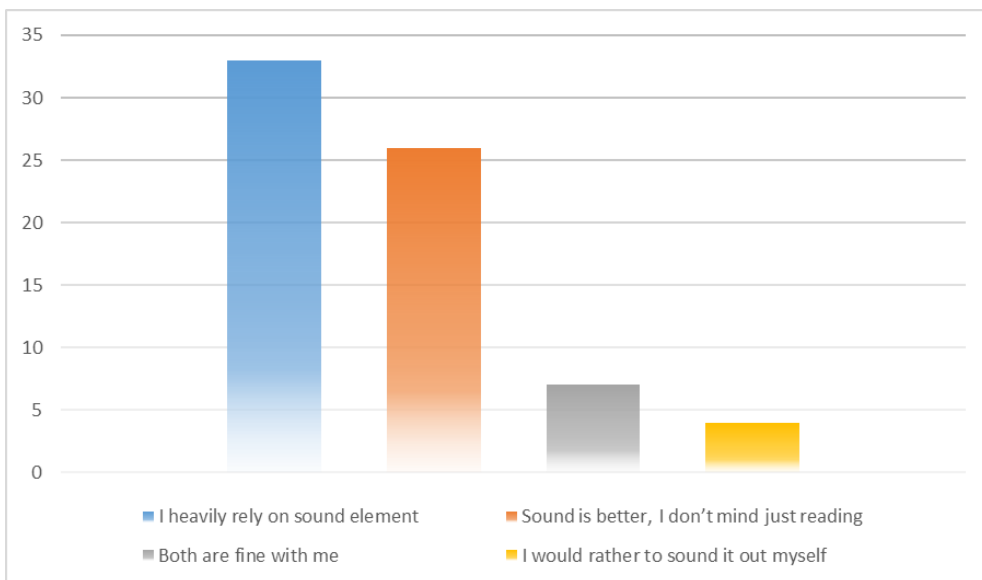


Figure 18: Percentage of Preference of Sound Element

Sound element is very useful for people, from the chart, 84.3% of the people would rather have a sound element to the application, very few respondent they prefer the reading.

4.2 DELIVERABLE APPLICATION INTERFACES



Figure 19: The main page of the application

This page will guide the user what option to choose according to their needs. It is well categorized, so that user can easily find what they are looking for.

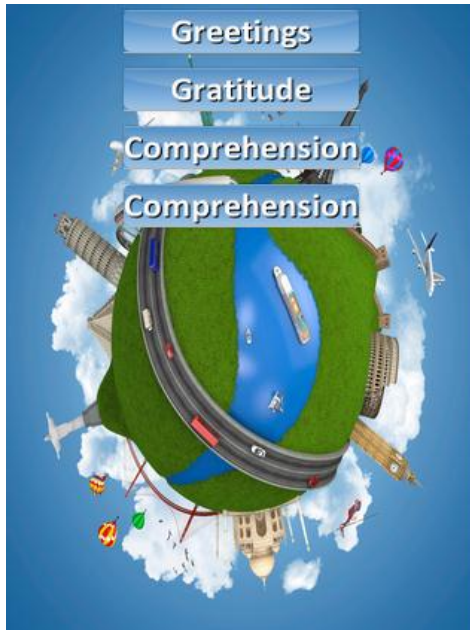


Figure 20: Example of subcategory pages

Here a user can find subcategory to choose from. By clicking the category user will be guided to intended page.



Figure 21: Example an application page

The next user will choose the page of his liking and find the word or phrase they are looking for. As it can be seen from the example, user either can read the phrase or press the intended sentence and show to the person he is interacting with, so they can directly hear what user is trying to communicate with them.



Figure 22: Translation page

In this page user will write the words or the whole sentences in order to get faster translation without going through what they are looking for. Even though categories are very useful for the user as they will know what sentences to use, but “Translation Page” might come in handy in times of urgencies. By clicking Translate button they can get the translation of the word in Russian and by clicking on “Speak” they can hear how it will sound in Russian.

4.3 USER ACCEPTANCE TESTING (UAT)

The main knowledge would be earned from User Acceptance Testing is to permit the user to evaluate and test the prototype of "Russian-Up" Application taking into account self-perception.

This User Acceptance Testing will be focusing on 30 users both male and female who daily use mobile phones and acquainted with utilizing mobile applications and have a considerable measure of encounters with traveling. The users' assessment will be in light of 3 categories. The categories incorporate Social elements, Technological variables and User satisfaction.

4.3.1 SOCIAL FACTOR

In this section, the respondents are required to examine the statements based on the criteria's on Russian-Up's user friendliness, usefulness, usability, and ease of time.

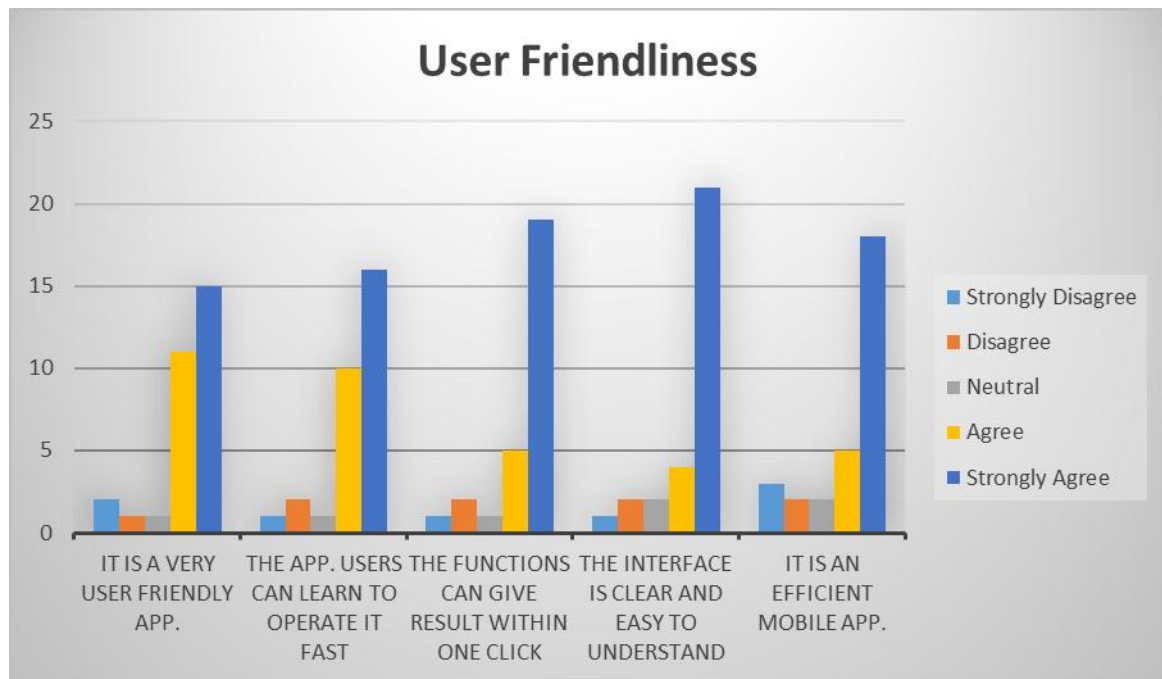


Figure 23: UAT on User Friendliness

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
It is a very user friendly app.	2	1	1	11	15
The app. Users can learn to operate it fast	1	2	1	10	16
The functions can give result within one click	1	2	1	5	19
The interface is clear and easy to understand	1	2	2	4	21
It is an efficient mobile app.	3	2	2	5	18

Table 5: UAT on User Friendliness

In the criteria of user friendliness, the result shows the users had given high rating and it proves that the user felt that this application is a user- friendly and efficient application and easy to operate it and so, the user can operate it in a short time.

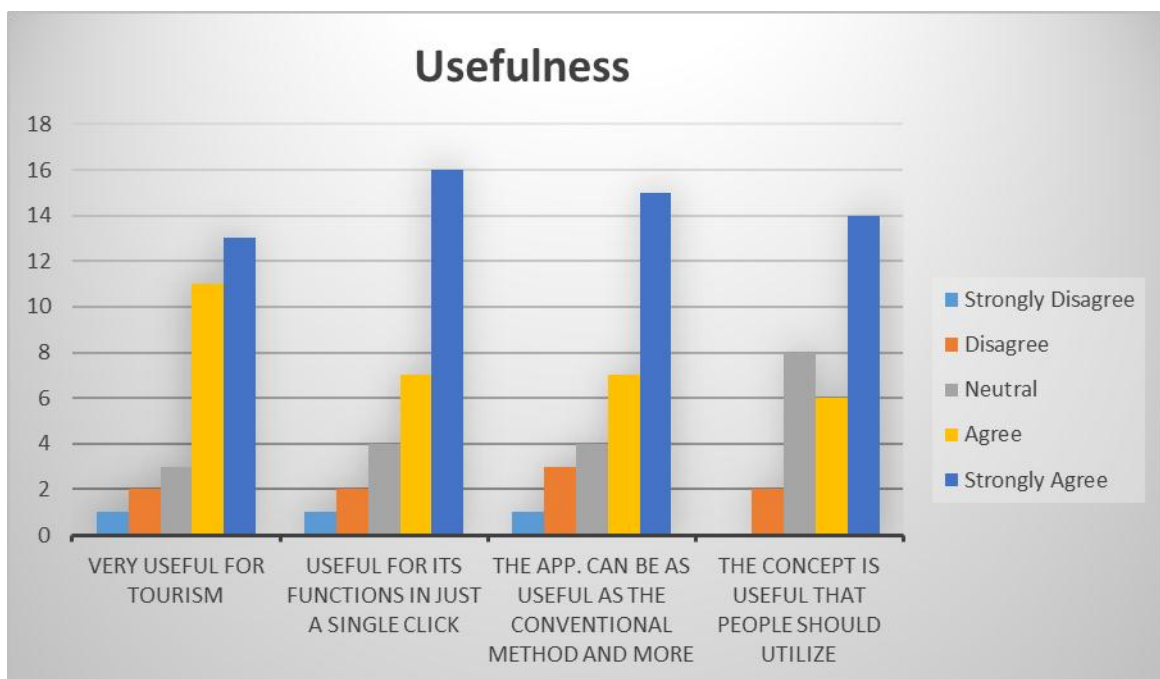


Figure 24: UAT on Usefulness

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Very Useful for tourism	1	2	3	11	13
Useful for its functions in just a single click	1	2	4	7	16
The app. Can be as useful as the conventional method and more	1	3	4	7	15
The concept is useful that people should utilize	0	2	8	6	14

Table 6: UAT on Usefulness

According to the outcome the usefulness of Russian-Up shows that most of the 30 respondents find it very useful due to its functions and suitable to be used by everyone during traveling.

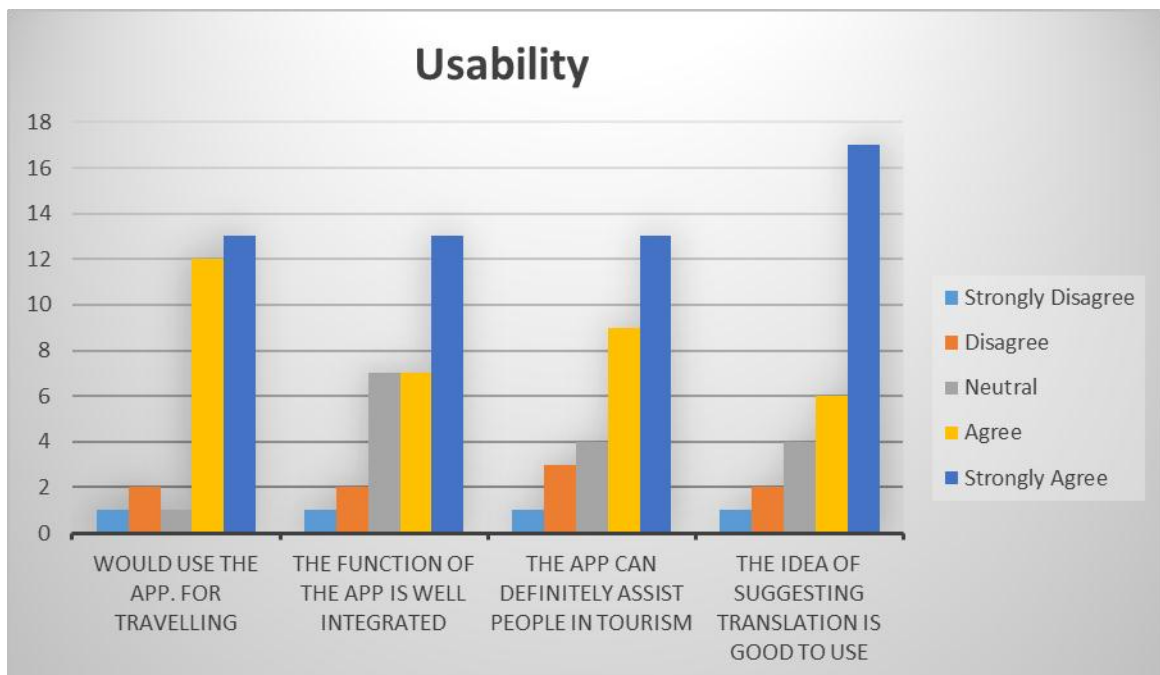


Figure 25: UAT on Usability

As for the response of Russian-Up’s usability 44.8% strongly agreed that they will use the app for traveling. The 30 respondents also find the function of the app is well integrated and are usable for the respective purpose, suggesting translations according the user preference.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Would use the app. For travelling	1	2	1	12	13
The function of the app is well integrated	1	2	7	7	13
The app can definitely assist people in tourism	1	3	4	9	13
The idea of suggesting translation is good to use	1	2	4	6	17

Table 7: UAT on Usability

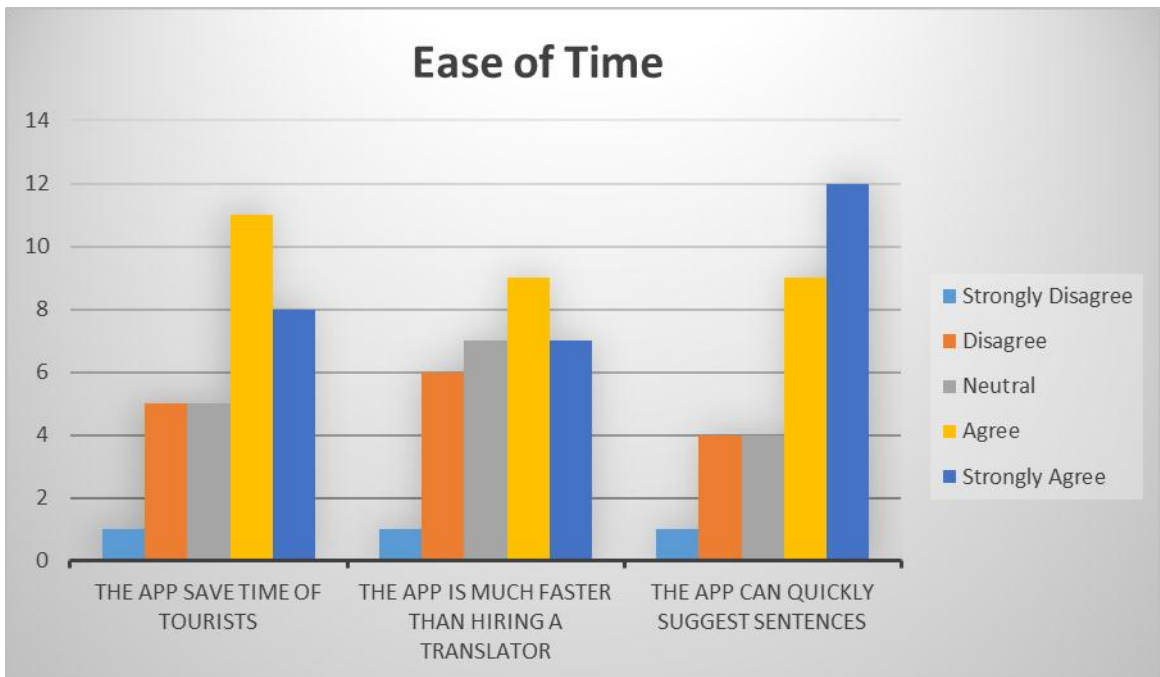


Figure 26: UAT on Ease of Time

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
The app save time of tourists	1	5	5	11	8
The app is much faster than hiring a translator	1	6	7	9	7
The app can quickly suggest sentences	1	4	4	9	12

Table 8: UAT on Ease of Time

For the testing on Russian-Up’s ease of time, the chart shows that most of the respondents believe that by using the app, it could definitely save time of users that plan to Russian Speaking Countries without contacting translator.

4.3.2 TECHNOLOGICAL FACTORS

For the technological, the respondents are obliged to inspect the nature of the application taking into account the criteria of availability of data, the attitude of the application and the behavioral intention of the users.

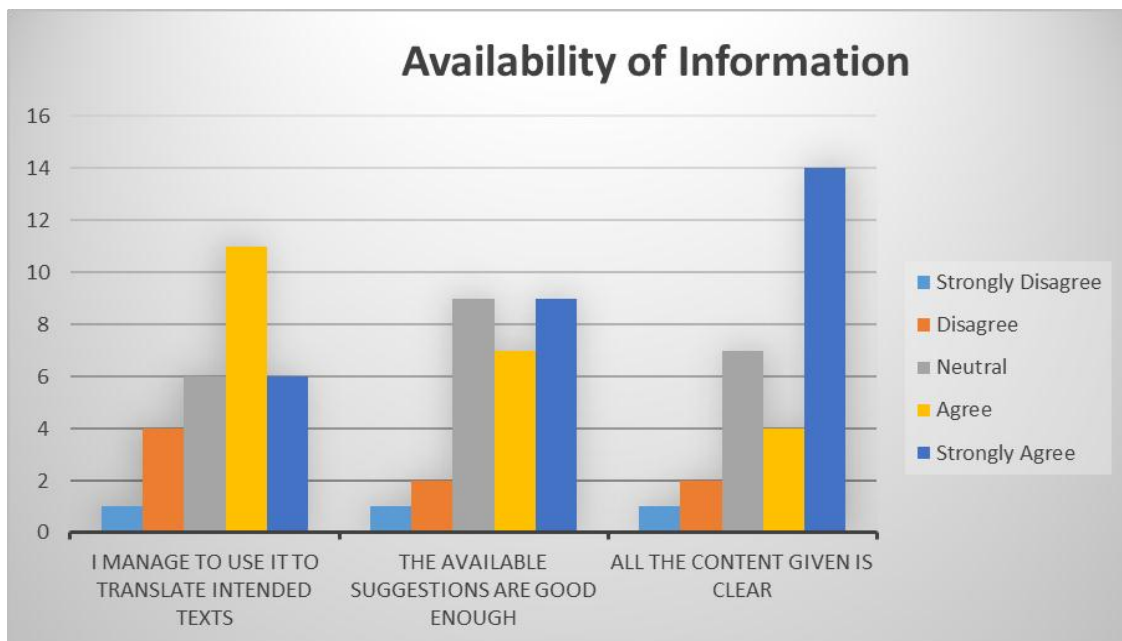


Figure 27: UAT on Availability of Information

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I manage to use it to translate intended texts	1	4	6	11	6
The available suggestions are good enough	1	2	9	7	9
All the content given is clear	1	2	7	4	14

Table 9: UAT on Availability of Information

According to the respondents most of them managed to translated the texts they were intended to, and mostly satisfied with the given suggestions and contents.

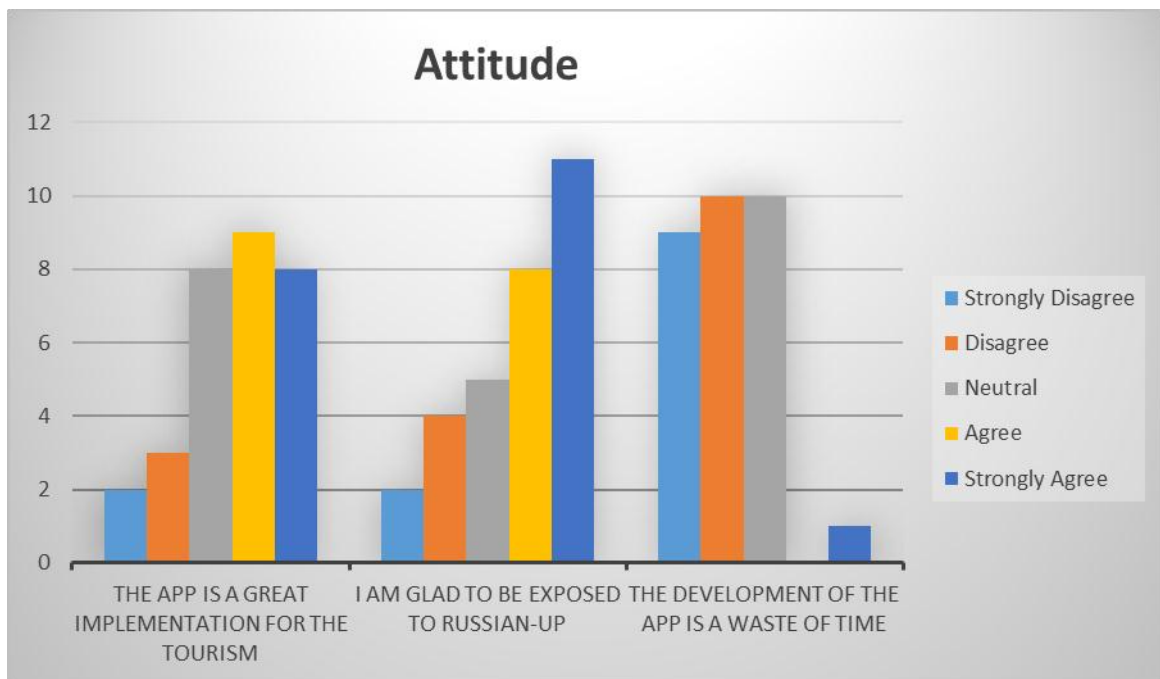


Figure 28: UAT on Attitude

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
The app is a great implementation for the tourism	2	3	8	9	8
I am glad to be exposed to Russian-Up	2	4	5	8	11
The development of the app is a waste of time	9	10	10	0	1

Table 10: UAT on Attitude

All the respondents find Russian-Up is a positive platform to help travelers and 31% of them agree that the app is a great implementation for tourism and the rest of them remain neutral to the statement. Besides, 37.9% of them are glad to be exposed to Russian-Up and some of them remain neutral as well. On the other hand, most of the 45 respondents believe that the development of Russian-Up is definitely not a waste of time. So that the result shows that Russian-Up is an acceptable app for users.

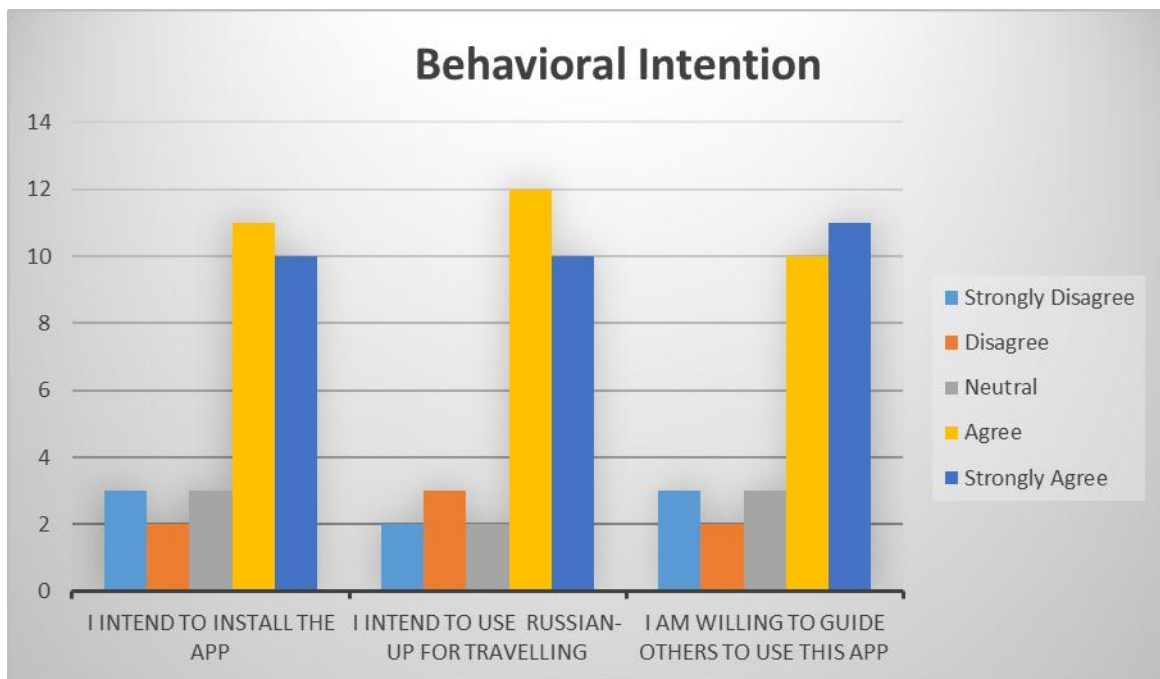


Figure 29: UAT on Behavioral Intention

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I intend to Install the app	3	2	3	11	10
I intend to use Russian-Up for travelling	2	3	2	12	10
I am willing to guide others to use this app	3	2	3	10	11

Table 11: UAT on Behavioral Intention

Based on the results above I can say that most of the users intend to use and recommend it to their friends for future references.

4.3.3 CUSTOMER SATISFACTION

Following would be the response on testing of the mobile application quality which reflects the satisfactory level of the users towards Russian-Up.

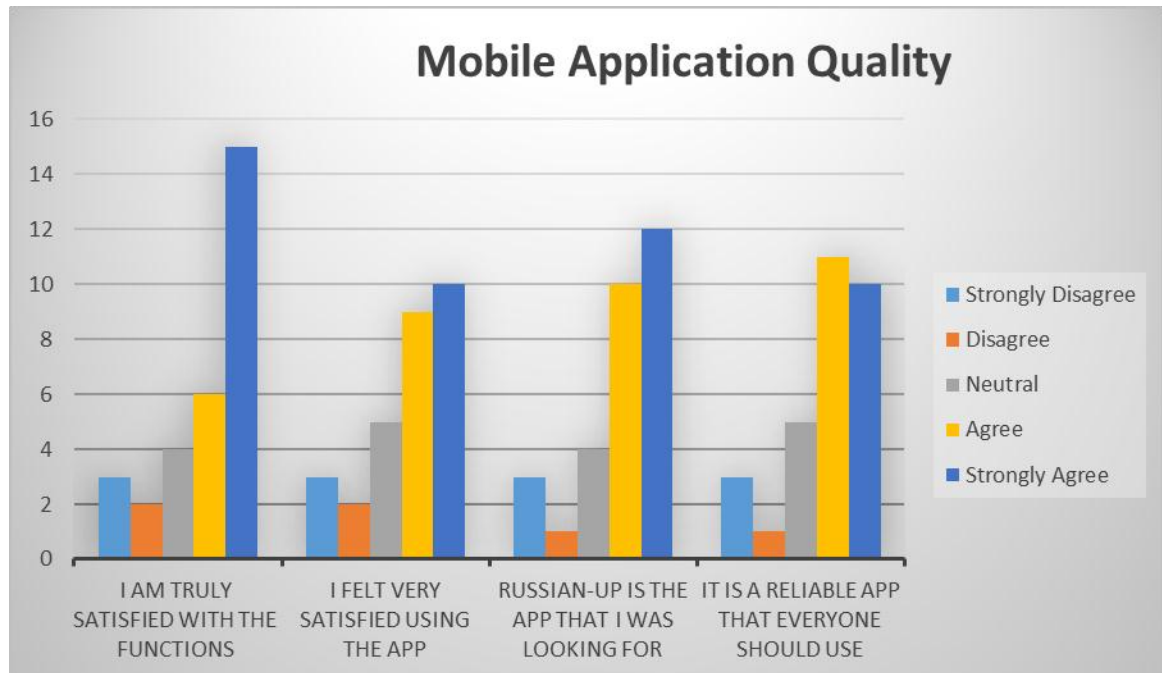


Figure 30: UAT on Mobile Application Quality

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I am truly satisfied with the functions	3	2	4	6	15
I felt very satisfied using the app	3	2	5	9	10
Russian-Up is the app that I was looking for	3	1	4	10	12
It is a reliable app that everyone should use	3	1	5	11	10

Table 12: UAT on Mobile Application Quality

According to the data collected, most of the users are satisfied with the functionality and they indicated that this application what was they are looking for.

CHAPTER 5

CONCLUSION

5.1 RELEVANCY OF THE OBJECTIVES

The main target of this project is to create portable language framework that will oblige general needs of each tourist with enhanced ease of use, versatility and with took after sound lingual and communicative competence method.

In short, Russian-Up mobile application is able to propose a solution that adheres to the objectives by:

- ❖ Helping tourists with a platform that can provide enough knowledge for basic needs communication with native speakers for language learners, who only need language for certain cases and time period.
- ❖ Providing mobile language application solution for mobile devices that run on Android Operating System (OS).
- ❖ Minimizing the struggle the tourists will be putting out in order to get by while visiting Russian speaking countries

5.2 SUGGESTED FUTURE WORKS FOR CONTINUATION

In future perspective, this project needs various enhancements could be performed in order to provide greater benefit for users.

- i. Trying to improve the wide range of words and phrases to implement in
- ii. Ease of use of the Russia-up mobile application could be improved also

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