

**A STUDY OF EFFECTIVENESS OF MOBILE ASSISTED
LANGUAGE LEARNING AMONG ENGINEERING
STUDENTS OF GUJARAT**

A Thesis

Submitted to

Gujarat Technological University

FOR THE DEGREE OF

Doctor of Philosophy

In the area of

Humanity: English

Submitted by

RASIKKUMAR JIVANLAL TANNA

Enrolment No: 149997571006

Under the Supervision of

DR. VIKAS M. RAVAL



GUJARAT TECHNOLOGICAL UNIVERSITY

January – 2021

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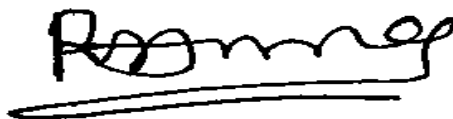
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Place: Gandhinagar

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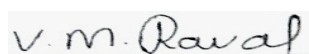
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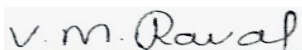
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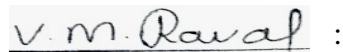
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The viva-voce of the PhD Thesis submitted by **Shri Rasikkumar Jivanlal Tanna** (Enrolment No. **149997571006**) entitled **A study of effectiveness of Mobile Assisted Language Learning among Engineering Students of Gujarat** was conducted on **01/01/2021 ,Friday** at Gujarat Technological University.

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(Dr. Vikas Raval)

(External Examiner 1) Name and Signature Suresh Agrawal (Dr.Suresh Agrawal)

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ABSTRACT

Mobile assisted language learning popularly known as MALL is an eye-catching research topic in 21st century. MALL is very much interesting and new-fangled way for learners to learn language. As possession of mobile phones become common among youngster and adult, it is easy for researcher and syllabus designer to think about framing interesting LSRW activities. To incorporate technology in traditional classroom system is somehow a challenging task for everybody but in the present research study, an effort has been made to create some interesting LSRW activities in the form of LSRW activities module and the same has been uploaded on Edmodo application. The central aim of this study is to check effectiveness of mobile device in developing LSRW Skills among engineering students of Gujarat. In order to achieve this objective, the researcher has framed questionnaire and circulated among 13 randomly selected engineering colleges in different five zones of Gujarat Technological University.

After surveying 512 respondents regarding their usage habit of mobile device, researcher has framed few interesting LSRW activity module and has decided to upload on Edmodo application. Edmodo is an easy and mobile supported online classroom platform in which teacher can do many activities in favour of developing LSRW skills. Keeping in mind the magnitude of target audience, the researcher has selected two engineering colleges for experimenting LSRW activity module. Pre-test, experiment of LSRW activity module and post test were the research design for achieving the central aim of the research. The result analysis of pre-test, LSRW activity module and post test is very much positive and researcher has achieved positive response in checking effectiveness of mobile assisted language learning among selected engineering students of Gujarat.

This research work will be supportive to students to appreciate the significance of the use of mobile device for education purpose. It will be advantageous to teachers in incorporating technology into pedagogy. Apart from it, this research will be useful to future researchers to discover latest approach for recuperating language skills.

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Acronyms

Acronym	Full Form
MALL	Mobile Assisted Language Learning
CALL	Computer Assisted Language Learning
WWW	World Wide Web
LSRW	Listening, Speaking, Reading, Writing
VCRs	Video Cassette Recorder
TVs	Television
OHP	Overhead projector
CLT	Communicative Language Teaching
US	United States
PDA	Personal digital Assistant
SMS	Short Message Service.
SNS	Social networking service
E-Book	Electronic –Book
Apps	Applications
Pay TM	Pay through Mobile
UK	United Kingdom
USA	United State of America
CD-ROM	Compact disc read-only memory
E-Leaning	Electronic learning
D-Learning	Distance Learning
FRAME	Framework for the Rational Analysis of Mobile Education
IOA	Interactive Oral Assessment
EFL	English as a First Language
TESOL	Teaching English to speakers of other languages
M-Learning	Mobile Learning

CHAPTER-1

Introduction

1.1 The background

The human civilization since the ancient age has witnessed the constant development of every human being in every sphere of life. Along with the developmental phase of human being, English language too has been in invariably state of flux.. English as a language has taken pre-dominant place for communication among the people of various countries. The constant increasing need of the human being in every sphere of exchanges and communication demanded the use and application of English as a language. In the essence of such epitome, English as a language can be described as a ‘system that consists of the development, acquisition, maintenance and use of complex systems of communication’. (Ramlan, 2018)

In the context of such understanding, Learning of English becomes quite obligatory for all human being. It is in an imbibed activity in every human being too. Since the prehistoric age in the development of English language to the modern arena, all human being attempted to discover the innovative methods, techniques, tools and approach to learn and use the English language in their day to day life. *Encyclopedia* of language learning opines that since the civilization of human being, everyone grows and gets educated with their surrounding environment which consists of education, politics, economics and technology. This process composes and forms the human brains to proceed for upward stage in achieving their objectives. Such human psychology has been also witnessed in the transition of learning English language from grammar translation method to recent communicative language teaching and from computer assisted language learning to mobile assisted Language learning.

The Education scenario of today is the true representative of technology and innovation. The invention and the advancement of technology have brought complete change in the

day to day activities of English learning and application. In such evolutionary phase, the users find high comfort ability in completing their activities either by way of interacting with society or by gaining information, knowledge or learning language. The journey from Computer assisted language learning (CALL) to Mobile assisted language learning (MALL) has proven such fact in learning and applying the English language. After emergence of “MALL” (mobile assisted language learning) computer monitors has hugely with mobile device in learning English language. As a result of fact, the plenty of software and websites are easily and quickly accessible by the people with the help of mobile device. The language learning procedure is getting innovative and creative approaches and techniques. At the same time, continuous change in the features of mobile technology has also brought lot of ease in exploring various tools for the accessibility of software and websites thereby introduced new methods of learning English language. Moreover the technology aid devices has also lead from the desktop to the use of the laptop which now has been gradually replaced by the use of advanced palm-top. This phase of technological invention made learners to collect handy information through high-end mobile devices such as Android smart-phones, Tablets, I-phone and I-pod. In the line of such changing phenomenon of the contemporary time, in the field of language learning and teaching, it alarms any researcher to discover the effectiveness of learning too. As a result of huge research studies in the field of mobile technology, researcher is instigated to discover prolific use and effectiveness of various versatile handy devices in general and mobile assisted language learning in particular.

1.1.2 The process of teaching-learning in transition phase:

During the major transitional phase, English language has been accepted as an international language and has travelled on the modes of adaption, innovation, modification and constant change. The Advancement and modernization in the field of education, politics, industrialization, globalization and technological digitalization has largely changed the contemplation of English language learning in adapting and modifying its status from Lingua Franca to an international Language. In order to maintain the space with such changed scenario, learners and users have also demonstrated their learning skills and capabilities in getting familiar with use of technology aided mobile device for their successful survival and adaption of changed circumstances with established practices. In the process of English language learning somewhere need of education has also brought transition through various methods and approaches which have impacted largely on

various areas like politics and globalization and become a central point in the transition of language learning.

Kelly has rightly mentioned that in a coherent system of the education, the approach to any discipline is governed by four factors: the aim of the system as a whole, the relevance of the discipline under discussion, theoretical findings in the sciences on which the discipline rests and the availability of research results to teachers in the classroom. (Louis G. Kelly p.15). These facts of Kelly can be realized through transition of language learning teaching process i.e. From “Grammar translation method to Communicative language teaching”.

The journey for learning language systematic has been started from “Grammar Translation Method” that has explored first to learn basic grammatical structure and vocabularies and less emphasis was given to speaking skill of leaning language (Kelly, Louis p.34). Thus, by the seventeenth century to nineteenth century the English language did not enjoy any international status and the grammar translation method remained in existence till the end of 19th century.

The momentum took place in the nineteenth century where the systematic study of the grammar of classical Greek and Latin texts once again directly gained impetus in the European schools. The English language teachers were of the opinion that the analytical Grammar Translation Method, which was followed to teach Greek and Latin, was also the most ideal method of teaching any modern language. For some time there was indecisiveness between analysis and functional aspects of teaching a language. In response to this method in the early mid 20th century and urge to use practical usage of English language become most demandable and Charles Berlitz and Gouin have introduced the “Direct Method”. The direct method revolves around the involvement of the student when speaking, and listening to the foreign language in their day to day English learning activities. As a result, lots English learning activities were happening such as oral interactions, spontaneous use of the languages, no translation, and little if any analysis of grammar rules and syntax.

The Direct Method also attained popularity at the end of the nineteenth century. But in the beginning of the twentieth century, the use of direct method has faced some difficulties mainly because of the inadequacy of funds and resources, time, not enough classroom size and insufficient native speakers of target language. Till the 1940's this method held

influence. Yet, after a period of decline, this method has been rejuvenated and became responsible for giving birth to the Audio-lingual Method.

The Audio-lingual method is also known as Army Method. This method was actually the immediate demand of teaching English to the American soldiers during the Second World War. The Audio-lingual Method is based on linguistic and psychological theory where teaching structural patterns was taught by means of repetitive drills without grammatical explanation. Vocabulary was taught in such context too. Teacher used tapes and visual aids to make the students visualize and memorize the taught structures and Vocabulary. Use of audio recorders, VCRs, TVs, and OHP were helping tools to explore language learning activities. The purpose of using technology was to improve pronunciations and accent in real term. On the other hand, conditioning and habit-formation models of learning put forward by the behaviouristic psychology.

The Chomskyan revolution in 1955, the linguistics, the scientific system of English drew the attention of linguists and language teachers to the deep structure of language, while psychologists took account of the affective and interpersonal nature of learning.

Noam Chomsky advocated cognitive theory by announcing that sentence structures and knowledge of language are result of experiences and observations and it cannot be taught through set of drills and repetitive actions as suggested by behavioristics (John Lyons p.12-18). As a result, new methods such as Suggestopedia and silent way were proposed, which attempted to capitalize on the importance of psychological factors in language learning.

Lozanov (1979) and his followers strongly believed that learning process in human being is more powerful than thinking process. He made an experiment some language activities on his students such as vocabulary, reading, role play and drama. He adopted yoga theory and some other extra sensory perception and suggested students to implement this theory along with language activities. After adopting the same students felt relaxed. In this way “Suggestopedia” came up.

The second method ‘the Silent Way’ rested on cognitive rather than affective arguments, and was characterized by a problem-solving approach to learning. In this method role of teacher was to serve as facilitator and students used to solve all language related problems

themselves. Here, the teacher remained silent hence this method was known as “Silent Way”

The last quarter of the 20th and in the beginning of 21st century, Communicative Language Teaching (CLT) has come into existence. It is the most innovative and very popular way of teaching English as a second or foreign language. The communicative approach (to language teaching) aims at developing the communicative competence of the learners which would include the learners acquiring the knowledge of communicative functions of the language and the linguistic means to perform the different kinds of functions. (Venkateswaran p.66) The objective of this approach is concentrating towards communicative competence in the target language. Teachers and Educationalists have started to put emphasis on interactive communication in terms of the skills: Listening, Speaking, Reading and Writing (LSRW). These skills provide base for including an appropriate framework of the approach, methodology, tasks and a conducive course material. Thus, communicative competence emerges as a requirement of the technology driven era which carries not only the grammar rules but also pragmatic competence. With the purpose of achieving this standard, the syllabus designer has to integrate all the skills of language while deciding an appropriate course for any level.

The present-day, Communicative Language Teaching finds its roots in the diverging global economic scenario. English language becomes the passport for those aspirants who consider the US and the European countries as destinations for their professional and economic advancement. Only good knowledge of English and communicative competency make their way to be familiar with the social and the cultural contexts of the western markets. Realizing this need of time the syllabus designer has focused upon the ‘Functional-Notional’ approach (Venkateswaran p.68) to design the syllabus.

There has been tremendous development during this period with promoters of language teaching concentrating on suitable course designs and preparing conducive resource materials for the teachers. Since the purpose of learning the skills of a language is effective communication in that language; the notion that an individual should perform competently whenever the need arises in designing the courses and developing the classrooms focused approach.

The classroom was considered only a place for performing practice rather than considering it an actual place for learning.. Therefore, the curriculum design has to focus on the

genuine needs and interests of the learners. Moreover, the curriculum should be made in such way that it should generate more opportunities to the learner to utilize it in actual situation. To fulfil these motives, goals and to explore skills (LSRW), Language exponents accept the technology driven materials and tools to fasten the language learning activities in more easy and comfortable way. Introduction of computers into Language learning environment opened up new horizons of learning language with new tools and tricks. As the technology proved to be an effective and extremely helpful tool, it has now become the necessity and has revealed some historical events such as introduction of computers into language learning environment, various useful tools and tricks of computers to learn language in better situation, benefits of computer assisted language learning and its drawbacks which may become one cause to think language designer to research new tool to learn language.

1.1.3 Introduction of Computer Assisted Language Learning (CALL)

Computer Assisted Language Learning (CALL) was the emerging area of research for many researchers and linguists in eighties and nineties. Researchers, Educationalists and linguists supported and approved the CALL as a better tool for teaching and learning language. The concept was started in 1960s. As language learning-teaching process shifted from many ups and downs and kept changing according to age-demand situation and environment. The same process has happened with CALL. Warschauer (1996) divided the development of CALL into three phases Viz. Behavioristics CALL, Communicative CALL, and Integrative CALL. Every phase gave rise to a new order, new methods and the new principles which made the language learning more easy and user friendly. These phases did not gain prominence over a day but like all innovations gained acceptance gradually.

1.1.3.1 The Phase of Behaviouristic CALL:

The Phase of Behaviouristic CALL was confined to higher education where the universities programmes were developed on big 'main frame computers'. University students were given materials. Later on based on the provided materials, students had selected various repeated task linked with the existence of stimuli of their leanings. In the beginning the entire process was carried out with the help of text where the role of computers was to detect and analyze the students 'mistakes followed by feedback. The phase of behaviouristic call demonstrated the basic application of teaching/learning a

language. This application was called PLATO (Programmed Logical Learning for Automated Teaching Operations).

1.1.3.2 The Phase of Communicative CALL:

The era of this phase, the first phase of behaviouristic was replaced by more sophisticated computer technology. Moreover, the form and technical appearance of computer were also changed. Due to certain lacuna of the phase behavioristics CALL such as Authentic Communication and repose, the next move to another phase communicative CALL was smoothly shifted. This was the period where technology innovation had also widely taken place. Due to technological innovation, new software and hardware were also introduced for communication which compelled the students and teachers to enhance their communicative skills practice. Such new practice and process impacted largely on language-learning through pace reading, text reconstruction and language games. These activities have formed major stream of activities to be carried out with the help of computers. Moreover, various programmes were also designed for refining skills such as implicit grammar teaching, introduction of correct pronunciation module, student motivational programme etc.

1.1.3.3 The next phase of integrative CALL

In the beginning of the phase of integrative CALL in 1990s, the technology advancement of computer multimedia and internet exploration had developed integration approach in using the technological devices for enhancing the teaching of language skills and transferred the same through various tasks and projects developments. This phase of Integrative CALL used maximum multimedia technology aided with the hypermedia technology which was introduced as even more powerful tool. The inferences were drawn as to link multimedia resources in learners learning approach which could direct the simple way of use. Moreover, certain advantages of hypermedia such as providing authenticity materials to learners and integrating skills of learners for developing the easy techniques of reading, writing, speaking and listening through a very few activities. Such development of this phase had also largely focused on content delivery rather than only focus on language form of learning.

1.1.3.4 The role of World Wide Web (WWW) in CALL:

The fast moving technology had added one more feather by introducing WWW in 1992, which had opened the new gateway for learning language through CALL. Such move had also directed the learners to learn even foreign language and English language very easily. The access of Internet had brought radical transformation in learners' methods of learning and communication. Learners preferred to communicate more via Emails with aide advantage of accessing the web browser such as Mosaic,(1993), Internet Explorer(1995), Opera, (1996),Mozilla Navigator,(2002),Mozilla Firefox (2004),Google Chrome (2008). Such fast communication development had also smoothly made students –teachers more familiar with the use of hypertext for developing systematic language learning techniques. Davies (2010) had suggested more than 500 websites to learners for learning language online through various exercises with the help of dictionaries, encyclopaedias, concordancers, translation aids and other miscellaneous resources of interest.

1.1.3.5. Challenges of CALL

The learning language through CALL also marked various challenges to learners in terms of acquisition cost of multimedia software, non availability of fund with educational institutions to be equipped with advanced computer labs, lack of qualified multimedia knowledgeable teachers etc. Such developed environment had reduced the ability of learners in learning and detecting mistakes in learning. The disqualified multimedia teachers' users could not largely add to develop possible activities of learning language.

The another eye catching challenge encountered due to disrupted electricity supply, inadequate internet bandwidth speed in institutions and classrooms. Such issues could not support the learners to concentrate on developing more learning practices. Moreover, CALL activities were totally confined to classroom language learning techniques where above all mentioned factors should be solved. It had restricted learners to learn when they are in field or outside the institutions. It means that the learner becomes helpless when he or she is not in the class room. CALL does not provide the anywhere, anyplace and any time situation of leaning language.

1.2 Introduction of Mobile Assisted Language Learning (MALL)

The technological advancement had brought exemplar innovation by introducing the Mobile devices for learners in language learning and made them to overcome all lacunas

and challenges existed in CALL. In addition to it the acceptance of English language as global language in the 21st century had altogether brought new concepts and approaches to learners. The Education institutions had also started to introduce new methodology of teaching and learning language with the use of mobile device. The CALL has played an essential role in enhancing the ability of learners to learn the language with the help of tiny technology i.e. Mobile Device.

Persistent advancement of technology and its widespread application in industrial and service sector has also brought encouraging growth in telecommunication sectors and added more sophistication in mobile instrument through introducing innovative and users' friendly features. The resulted phenomenal change and radical growth has increased mobile users and thereby added language learners through mobile device. Such progress in this entire system has given birth to 'digital generation' which has enlarged the scope of language learning through mobile device.

In the due course of action, the participants of language learners such as teachers, students and researchers have explored various opportunities in the area of language learning and could devise innovative methods with the help of mobile device. Innovation of this era in the field of mobile technology has been so extreme that the today's digital generation' started making the use of technological instruments such as Personal digital Assistant (PDA), Tablets and Smart-phones in their regular activities of learning language. Mobile Assisted Language learning is a sort of learning language where mobile device is the tool for learning Language. This "mobile device" is the current epithet for the digital form of a very old learning technology, a mobile phone integrates the book, paper, pencil, camera, video camera, radio, computer and, by the way, telephone.(Pachler, Norbert, Kukulska, Hulme Agnes 2009).

It was a time when people used to carry pocket diary and digital diaries for first hand access of contact details, pagers for messaging, blank pages for developing planners, Pocket calendar for remembering schedules, pocket dictionary for referring vocabulary and roll cameras for capturing pictures. All these traditional methods have been replaced by basic innovative features of mobile device. Along with all inbuilt features, the connectivity of internet through mobile device has given the new edge in learning methods. The audio and video features of mobile device have provided an authentic proof as one can record the voice and the video in MP 4 format. Such activities offer enough practice and provide

appropriate platform for learning the basic skills such as LSRW. Mobile devices have now become inseparably part of every human beings daily life.

Internet connectivity in mobile device especially through smart phone has made the extensive access of various software applications which have played a very important role in learning language. Previously Mobile was just the instrument for telephony purpose but since last decade Mobile service markets are so much flooded with innovative applications such as social networking, podcasting, or speech recognition which enable learners to learn language in social context which can provide the learning on hand or learning instant or anywhere, anytime opportunity. All these features of mobile device and different kinds of applications has made learners to perform many activities of social-interactive functions such as communication, organization, applications, information and relaxation. Communication is possible Calling, SMS and Email features of mobile phone. Organization of any event or schedule is possible through memos, address or calendars, other utilities. One can also take help of various applications such as e-books, database, tools, and office for much social interactive purpose. For getting information various webs references are very much helpful and for relaxation purpose features such as camera, music, movies, or games are helpful. (Kim, Heyoung & Kwon, Yeonhee). The use of mobile devices, such as Smart Phones, PDAs, notebook computers, and tablets, not only brought ease in the life of learners, but also has made impact on their creativity and innovations in performing various activities.

Apart from learning activities the mobile device with all its advanced features and aided applications have been helping common man to perform their routine activities such as online payment of electricity bill, Gas bill, house tax, purchasing domestic goods and services, booking cinema tickets, hotel bookings, flight booking or even money transfer from apps like Pay TM, Flicker, etc. These days, creating weblogging or making webpage becomes identity or status for computer users. This does not remain the monopoly of computer users but Mobile users can also access the Internet or publish their texts, images, and videos by their mobile phones to their WebPages. When any user use and publish any information by taking help of mobile websites is called mobologging which allows learners to share their ideas and communicate with their friends. This feature of mobile device make the learners remain exposed to language learning which ultimately put them to the climate of language learning.

The present study is focused on various learning techniques and its effectiveness. Hence, the stated explanation and arguments in relation to features and its usage clearly provides the positive platform to engineering students to ensure the effectiveness of mobile assisted language learning in learning LSWR.

1.2.1 The Transitional phase of MALL

Unlike computer assisted language learning, mobile assisted language learning too faced the transition phase. Mobile device appeared in two phases i.e. the low-end mobile and high-end mobile. In 1973, John F. Mitchell and Martin Cooper of Motorola made the first low-end mobile which weighed 2 K.G. Its commercially appearance into the society was initially for telephonic purpose only. From 1983 to till date, the mobile device has been evolving and updating its shape and size and constantly has been changing its features. Initially mobile phone was simple and did not possess any features but it got transformed to latest high –end featured mobile phone. Keeping in mind the initial facilities of mobile devices very few experiments had been done by scholars to use mobile device for education purpose. The first use of mobile device in education had been done by Twarog and Pereszlenyi Pinter in 1980. They used telephones to provide distant language learners with feedback and assistance. This experiment had been done to facilitate students of Ohio University for the purpose making their students more independents and self –learners. After that in 1990s some trainers from Brigham Young University-Hawaii gave training to learners in the form of a distance education. English course was prepared as taught from Hawaii to Tonga via telephone and computer (Green, Collier, & Evans, 2001). According to George M. Chinnery in his paper published in *Language learning & technology*; 2006, in the beginning of the 2000s one of the first projects using mobile phones in language learning was developed by the Stanford Learning Lab, in the UK and the USA which explored their use in language learning. (Brown, 2001). They were merely three artificial trials in laboratory settings and this made those attempts far from being mobile at all. Soon after that in August 2004, Duke University gave all incoming freshmen with free iPods equipped with voice recorders. These iPods were given for the purpose of performing pilot study. Later on Thornton and Houser (2002; 2003; 2005) used mobile phones to provide vocabulary instruction by SMS at a Japanese university. They used to send short and very well planned lessons to students. These lessons were provided via email to students three times a day. The students learned via SMS were twice more successful in the terms of vocabulary words and scores compare to students who had received their lessons on paper.

These few researches were initial researches which made use of mobile devices in teaching and learning process and since then the world has seen the quick development of the use of mobile technologies in learning in general and foreign language learning in particular. After these initial works, numerous studies have reported on the use of mobile devices being used to develop language skills in the last few decades. Later, mobile phone was used to access the Internet for the purpose of improving EFL listening skills (Nah, White & Sussex, 2008), some researches such as Saran, Seferoglu and Cagiltay used mobile phones for to develop English pronunciation. Vocabulary acquisition activities were also performed through mobile phone. The purpose was to check The effectiveness of MALL on learners.

These Studies and surveys undoubtedly declare that mobile devices are extensively used by students, even if not for educational purposes. A survey in Japan by Thornton & Houser, 2005 exposed that 100 per cent of 333 tertiary level participants used a mobile phone, and 20 per cent of them had used a personal digital assistant (PDA). Moreover the current study (Cavus & Ibrahim, 2009) has revealed that, compared to other desktop and PCs, mobile phones are widely used by university students.

Thornton and Houser (2003) sets the best example by developing a web supported English program for PADs and Smart Phones. The linguist Mr. Dias in 2002 made web-board accessible by mobile phone to provide links to English language learning websites. Learners were able to interact live with each other, or with their teachers and any visitor lecturers. This universal exploitation of mobile device give much impulsion to researchers for developing effective use of mobile device in learning the everyday used language which ultimately becomes the effective tool for learning language.

Cho (2009) and Lee (2010) indicate that Smart phones enable the combination of multimedia and the web heightens the learners' autonomy and collaboration. Another research done by Houser (2003) made use of a mobile phone for making opinion poll in the classroom EduCALL (inspired by EduClick), to survey students during class in order to determine vocabulary retention. After these basic projects, series of projects, workshops, Seminars and book publication providing mobile assisted Education and case study have been started at countries like UK, Hong Kong, Taiwan, Japan, Korea, Australia, Africa etc. A detail literature review of all these related to language learning are explained in Chapter 2.

1.2.2. Conceptualisation of MALL:

Mobile assisted Language learning popularly (MALL) is the abridged and modified version of Computer Assisted Language Learning in particular and technology based version of Language Lab of 1960s to 1980s in general. Because its inbuilt features such as audio-recording, Video-recording, photo shop gallery etc. reminds us the language Lab of 1960s to 1980s. After the invention of computer and especially internet, the learning parameters of learners have changed. Today's digital native Generation learns the language as well as receives the updates by making collaborative group, sharing and receiving information via social networks and surfing internet on their mobile phone. The term mobile assisted language learning is very much hard and difficult to define as it has various opinions and debate on its title. Noun "Mobile" literally means the action happens while a person is not at fixed place. The facility becomes mobile means from anywhere or anytime a person can get. In this context Kusulska-Hulme & Traxler have rightly defined in their edited book "Mobile Learning', a handbook for educators and trainers".

'Mobile learning' is totally a new concept but it implies learning which can be access through anywhere anytime concept. Learners do not require physical location for language leaning purpose.[Kusulska-Hulme & Traxler, 2005 P.1-6). Further Kukulka-Hulme commented that "mobile technology can help out learners at the point of necessity and it changes the activities of mobile users in very positive manners." (p. 162). The consequent of this type of learning via Mobile phone created new style and method to deliver education. (Sharples, Taylor & Vavloula, 2005). In 2007 Stockwell stated that most of the MALL activities are similar to Computer based activities and these are more popular than CALL as the technologies themselves are becoming more persistent and most of the students own mobile devices .(p. 366).

These concepts have been defined a decade ago where apps were not easily supported to mobile devices. But after the innovations in mobile technology the concepts of researchers in the field of mobile leaning has been changed. In 2009 Sharples et.al opined as "M-learning helps the people to link themselves from virtual worlds to real world and virtual worlds. It also helps people to create learning communities online". Pachler and Cook (2010, p. 6) identify M-learning as "the procedure of getting information which are easy to operate and this is an appropriate place for knowing how to exploit every day learning

experience into learning place. In 2011 Godwin-Jones further proposed that “mobile devices incorporate real-life interests of learners which improve their academic roles”.

The literature sums up by describing the advantages of using MALL as follows. First, MALL enables students to more easily and more promptly access language learning materials and to communicate with people at anytime, from anywhere. Second, this natural digital technology helps students’ involvement in both ,individual as well as collaborative language learning activities which may be online as well as offline which are resulted to develop speaking, listening, reading, and writing, skills. Third, mobile technology provides a variety of resources and tools and platforms for language learning that encourage learners to be more motivated, self-directed and socially interactive.(Kim, Heyoung & Kwon, Yeonhee).

In present digital age, upcoming new generation use mobile device as a tool to communicate with their surrounding world. Such devices make smooth and easy modes of exchanging information amongst them and fulfil their requirements of various types of communications. Hence, all advanced technological devices adopted by the English language learners proved to be useful method of recent times. Learners of English language can widen the scope of their learning via their mobile devices and its supported features such as applications, software, social media, and internet connected activities, and video-audio clips. These facilities of mobile device fill the absent of computer in those situation where the computers cannot be accessible easily.

The present study envisages the possible language learning activities of mobile applications and its various features i.e Email, Web, play audio and video files, YouTube, photo capture, voice recorder, video recording, GPS audio-video, SMS, , Data-base storage through inbuilt memory, memory cards and other supported features like translation, dictionary clouds, whats-app, Android applications etc. These features provide constant stimulus and exposure to number of activities for developing listening and reading skills.

1.3 The Problem Statement

Mobile assisted language learning (MALL) illustrates an advance learning technology to learn language through use of a mobile device such as smart phone, camera phone, i-phone, Tablet etc. It does not need any wire and any other instruments for connectivity purpose.It are easy to carry anywhere and anyplace. Mobile assisted learning is the

trendiest field which combines both mobile learning (m-learning) as well as computer assisted language learning (CALL). If computer is not affordable and accessible, mobile device can be used in place of computer.

The introduction and speedy development of technology has obligated teachers and learners to make them familiar with new techniques of teaching and learning methods. Learners require some attractive and new-fangled technology for the purpose of learning. In this case it is compulsory for the teacher of English to apply current techniques of teaching to fortify learners' communicative potential. There are a variety of troubles and issues that the teacher has to tolerate with bulky classes; little instructional resources, restricted time and limited technical support. The language activities based on Mobile Phone Technology can lessen this issue as it let the learner to apply their resourceful and inventive power and facilitate them to state energetically in a multiple, interesting and pleasurable language learning tasks not only in the classroom but also in real life situation.

MALL concept has been used and has been put into practice extensively in foreign countries. India and particularly the state Gujarat is completely new to adopt and implement technology based teaching and learning approach in its educational institutions. There are a few studies on implementation of MALL in Gujarat as well as India. Looking at the socio-economic growth of Gujarat state; it can be seen highly favourable and effective to execute MALL as a tool of learning language because there many institutes especially Engineering institutes which are technically fully equipped. As a result of this, learners also learn to use technology in their routine life. Moreover day by day , various high technology and increasing number of mobile technology users draw the attention on major two aspects. First, it has been observed largely that users of advanced technological devices do not require any qualification or edibility, but it stands on their requirement and affordability. It essentially provides the scope to develop the new dimensions of learning languages and gradually accustoms the users to communicate it easily with the help of inbuilt feature in it. Second, since the cut -throat competition has taken place globally; it has also brought impact on economic environment of various countries. Such process has put impetus on inflationary conditions and income level of people. Moreover, the mushrooming manufactures of technological devices, have largely brought down the prices of various advanced devices in the open market. The entire phase of change has created the affordability of people to purchase various types of advanced technological devices at cheaper price. Hence the whole spectrum of advancement has led the users to be affluent

with the use of technological devices in learning the languages. Many times it has been found that the techno-savvy is also fascinated to use highly advance technological devices in their routine communication.

Research -Gap

In addition to the above mentioned fact, it is also apparently found from reviewing various articles that many researchers have modestly attempted to discover dynamics of the learning techniques through Mobile device for English language only. But there is no any research which draws the attention of researchers to look on the effectiveness of these learning techniques in other disciplines of teaching-learning in education. It clearly states the research gap between research studies carried out earlier and the present study. Hence, it prompts a researcher to carry out a study on practical implementation of MALL in Gujarat. Consequently, the study clearly intended to find out the effectiveness and significance of Mobile device as a tool of learning language amongst the engineering students.

1.4 Objectives

- To analyse the mobile device usage habits of students of selected engineering colleges of Gujarat.
- To examine the effectiveness of mobile device in developing Listening Skills of students of selected Engineering colleges, Gujarat
- To examine the effectiveness of mobile device in developing Speaking Listening Skills of students of selected Engineering colleges, Gujarat.
- To examine the effectiveness of mobile device in developing Reading Skills of students of selected Engineering colleges, Gujarat
- To examine the effectiveness of mobile device in developing Writing Skills of students of selected Engineering colleges, Gujarat

1.5 Hypothesis

H₀₁ : The students of engineering are not considerably acquainted with Mobile assisted language learning.

H₁₁ : The students of engineering are considerably acquainted with Mobile assisted language learning.

H₀₂ : There is no significant impact of effectiveness of mobile device on developing Listening Skills of selected Engineering colleges of Gujarat

H₁₂ : There is significant impact of effectiveness of mobile device on developing Listening Skills of selected Engineering colleges of Gujarat

H₀₃ : There is no significant impact of effectiveness of mobile device on developing Speaking Skills of selected Engineering colleges of Gujarat

H₁₃ : There is significant impact of effectiveness of mobile device on developing Speaking Skills of selected Engineering colleges of Gujarat

H₀₄ : There is no significant impact of effectiveness of mobile device on developing Reading Skills of selected Engineering colleges of Gujarat

H₁₄ : There is significant impact of effectiveness of mobile device on developing Reading Skills of selected Engineering colleges of Gujarat

H₀₅ : There is no significant impact of effectiveness of mobile device on developing Writing Skills of selected Engineering colleges of Gujarat

H₁₅ : There is significant impact of effectiveness of mobile device on developing Writing Skills of selected Engineering colleges of Gujarat

1.6 Research Design and Methodology

This research study is descriptive in nature and entirely based on primary survey and try-outs of activities module of reading, listening and speaking skills, through Edmodo, an online Collaborative tool for exchanging information, video audio and language learning activities. Study aims to find out mobile phone usage habit of students of selected Engineering colleges of Gujarat and check the effectiveness of Mobile phone on various Language learning skills such as Listening, Speaking, Reading Writing skills.

Keeping in mind the nature of study and magnitude to test the effectiveness of language learning through mobile device, the researcher has adopted following two methods of collecting primary data from respondents.

1.6.1 Implementation of LSRW activity module on Edmodo Application

Before execution of the said model, researcher has conducted pre-test among all selected respondents and found out their basic knowledge of the LSRW learning skills. The pre-test was conducted in two different colleges Shankersinh Vaghela Bapu Institute of technology, Vasan, Gandhinagar and Gujarat Power Engineering and Research institute, Mevad, Mahesana respectively. The respondents were selected randomly from the category based on the English subject offered in their curriculum. The total respondents considered for this activity are 80.

After the execution of the said LSRW activity module via Edmodo, researcher has conducted Post-test for finding out the difference in LSRW learning skills and thereby justifying the effectiveness of Mobile device in language learning procedure.

The activity module prepared.

Defined various activities of LSRW

1. Prepared Audio for listening activities and uploaded the link of same on Edmodo
2. Downloaded speaking skills videos from YouTube and same is uploaded on Edmodo for generating responses from respondents through the WhatsApp
3. For reading Skills, prepared reading Comprehension text in Google form followed by question –answer and uploaded the link of the same on Edmodo and generated the responses through Google form.
4. For writing skills, prepared five different activities in Google form and the link of the same was uploaded on Edmodo.

1.6.2 Procedure of executing the LSRW learning skills activities:

After making the survey, 60 hours module of LSRW activities has been designed and has been put on Edmodo application. This activity module was of Reading, Listening, and Speaking skills containing 2 (two) to 5 (five) activities of each module. These activities were prepared keeping in mind the engineering students at the centre so the contents have been taken from engineering vocabularies and the type of English used in Engineering field. To check the validity and reliability of the said module, it has been piloted at mother Institute “Shankersinh Vaghela Bapu Institute of Technology in September, 2018. The

module has been reviewed by Supervisor and subject experts. After making revision and modification, this module has been implemented on the 40 students of Shankersinh Vaghela Bapu institute of Technology Vasan, Gujarat and 40 students from Gujarat Power Engineering and Research Institute, Mevad, Mahesana. The duration of said module was from February, 2019 to May, 2019 Total 80 students were target sample for the try-out of the said module. To make the study more precise and accurate, researcher has taken the pre-test in March, 2019 of the 80 selected students before to implement the said module on Edmodo application and after the completion of try-out of said module on Edmodo application, post-test has been taken in May, 2019. The result of pre-test, post-test and responses of LSRW activity module have clearly proved the effectiveness of mobile phone on language learning.

1.6.3 Developed structured questionnaire and collected data with the help of Google form.

The step-wise research process for collecting primary data through the structured questionnaire in the present study is described as under:

Sampling design:

The samples have been taken from each zone such as Ahmadabad, Vidyanagar, Surat, Rajkot and Gandhinagar.13 (thirteen) randomly selected Engineering colleges affiliated to Gujarat technological University (GTU) have been considered for selecting samples.

Sample Unit:

The sample unit for the said study is identified as ‘Android mobile user students of engineering colleges’.

Sampling technique:

Random sampling method is adopted with a view to obtain balanced and systematic information from respondents.

Sample Size:

Keeping in mind the total population of Android Mobile users, 512 of engineering students are considered for the said study.

1.6.4 Construction of Questionnaire:

In order to identify various language related activity via Mobile phone by various respondents, sampling design was planned out with adopting survey method in 13 randomly selected Engineering colleges of Gujarat.

The questionnaire has been made to find out the learners' Mobile device usage habit and its effectiveness for language learning. Respondent were randomly selected from the engineering colleges affiliated to GTU. For collecting primary data through structured questionnaire, the colleges were selected from five different zones of Gujarat.

Different five zones like Gandhinagar includes 3(*three*) colleges such as 1) Shankersinh Vaghela Bapu Institute of Technology, Vasan, Gandhinagar 2) Gujarat Power Engineering and Research institute, Mevad, Mahesana. 3) Government Engineering College, Modasa.

Ahmedabad Zone includes 2(*two*) colleges such as 1) L. J. Institute of engineering and technology, Ahmedabad. 2) SAL Institute of Technology and Engineering Research, Ahmedabad

Rajkot Zone includes 3(*three*) colleges such as 1) Marwadi Education Foundation, Engineering discipline, Rajkot 2) OM Engineering College, Junagadh 3) Noble engineering college and

Vidyanagar Zone includes 3(*three*) colleges such as 1) Birla Vishwakarma Mahavidyalaya, Vidyanagar 2) Neo Institute of Technology, Baroda 3) G H Patel Engineering Vidyanagar

Surat Zone includes 2(*two*) colleges such as 1) Government Engineering College, Valsad 2) Dr. S.& S. S. Gandhi Government Engineering College, Surat

1.6.5 Mode of Sending and collecting Questionnaire:

The questionnaire was sent through Google form in which a prepared Questionnaire has been put. This questionnaire contains various close ended and open ended questions on their nature and purpose of using mobile.

1.6.6 Statistical Too 1:

The present research study is aimed to investigate the effective of mobile device on learning language skill and is based on primary data. The collected data were analyzed

with the help of statistical tools such as mean, mode, median, average, Chi-square, frequency distribution, T-test, One-way Annova test and Factor analysis.

1.7 Chapterisation Scheme:

Chapter 1 focuses on Introduction, conceptualization, concept of Mobile Assisted language learning (MALL), objectives, hypothesis, methodology, major features and limitations of mobile phone.

Chapter 2 incorporates review of literature of the study.

Chapter 3 explores LSRW activities of Mobile Device with the help of inbuilt device features and supported applications

Chapter 4 explores the usage habits of mobile device and LSRW skills development through MALL among the engineering students

Chapter 5 evaluating the effectiveness of mobile device in developing LSRW Skills of the students of Selected Engineering Colleges of Gujarat

Chapter 6 evaluating the effectiveness of mobile device in developing LSRW Skills of the students of Selected Engineering Colleges of Gujarat with the help of Edmodo.

Chapter 7 draws out major conclusions, enumerates summary, extracts out the recommendations and provides future scope of research.

1.8 Limitations of Mobile Technology

The limitations cover poor sound and display coupled with very limited download speed.

Its screen space limits text for SMS.

This research aims to deal with some issues based on preparation of tasks and its try out to study under graduate engineering students preference and possibility of implementation of MALL method.

The possible impediments for the accomplishment of MALL application are:

- 1) How far is mobile device useful to college student community or is it useful at all?

- 2) Can it empower teacher student community? Can it improve their proficiency of learning? If yes, to what extent? Why?
- 3) Can mobile device empower and improve proficiency of low and slow level learners?

1.9 Significance of the Study

English Teaching – learning process has been an issue over years. In digital influenced era, still it is an unsolved issue. Rural India can't contemplate e-learning and even some notable urban areas are not well equipped with language labs. Moreover, every student cannot afford personal computer. The introduction of mobile technology is seen to alleviate these issues. Cell phone can be afforded by almost all college-goers. Proper guidance may aid English language teaching to a higher end in India.

Students of Engineering especially of Gujarat are very innovative and goal oriented but they are lacking soft skills. In order to develop these soft skills, it becomes inevitable necessity for them to learn English. Students are conscious about it but they are not getting constant exposure of English language. Some practice has been given in the form of Communication skills subject which has been offered once in the course of eight semesters. This limitation of University can be cured if the positive usage of Mobile device has been revealed to the Engineering students of Gujarat.

1.10 Conclusions

Various inferences drawn from the said study recommends the academia to aid mobile device as one of tools for effective teaching in various disciplines of education. For example, as per the pedagogy of prominent institutes, they educate their students' learners through case study methods. Now, as the technology has been expanding its horizons, it will also come out with new features and supportive applications of mobile device. On this ground, if trainer asks the learners to directly link on institute's customized mobile application or website in class through mobile device, than it creates the entirely new concepts of learning. The smart phones are gradually upgrading and widening the opportunities for all its users by taking the benefit of various supportive applications and software. So such learning activities can be prepared for developing newer tools and techniques of learning through the said study.

CHAPTER-2

Review of Literature

2.1. Introduction

In the journey of research, writing literature review is the most important task for researcher. It reflects the efforts and hard work of researcher. Literature review is an authentic proof of the re-search done by researcher. Secondly it is also expected from researcher to demonstrate how his /her research is different from other related or the same theme exploring theses and dissertation. It is the valid fact that the achievement of any research study can claim its uniqueness after accomplishment of proper literature review of his/her topic. Prior to find journey of the concrete research, the researcher has to renew his or her awareness about the earlier researches that have been taken place in the related field. This practice of revising and scrutinizing the earlier researches create a link between the present research and the researches have been taken place before. It helps the researcher to validate that her/his research as a unique and is not copied. Literature is actually the procedure of collecting secondary data in which researcher collects the particular data related to his or her research. The collection of irrelevant data may decrease the validity of his or her research. According to C.R.Kothari (111) Secondary data may either be published data or unpublished data. These data are available in a variety of literatures such as local, state, national and international published research papers, technical and non technical journals, books, magazines and newspapers; reports of submitted thesis prepared by research scholars, universities etc. Observing above mentioned facts regarding the procedure of writing literature review, researcher has included an extensive and comprehensive literature review of various sources such as state level research papers, national level research paper, international level research papers, reports of ongoing and completed projects, few lists of dissertations or theses, and review of published books.

Existing age is the age of digital technology and digital literacy. In this digital age, everybody becomes conscious and very needy in making use of technology in routine life too. People are getting everything on their finger as they are living in the world of

technological explosion. Paying online for day to day household things and shopping online become a fashion now. In such situation, introduction of mobile device for education purpose needs some researches as well as some authentic pedagogy which can guide the digital generation to increase some positive use of mobile device in education. Keeping this fact in mind, the researcher has attempted to review the relevant literature which focuses on the background knowledge regarding use of technology i.e. mobile device in education and the gradual innovative and invention took place with the passage of time. As features of the mobile device have been modifying in its quality and support, the educationalists also started to use these features for education purpose. The most important benefit of involving mobile device in education is that it can be used anywhere, any place and any time. Authors of some researches (Nyíri, 2002 [1], 2005 [2]; Sharma and Kitchen, 2004 [4]; and Tuimala Hosseini, 2005 [3]; and Laouris Eteokleous, 2005 [6]) claimed that mobile learning is basically the natural growth of distance learning and e-learning. The common fact regarding these three is that physical present is not needed in distance learning, E-learning as well as Mobile learning but as a matter of fact, there are some difference between these three. The difference between Distance-learning, E-learning and Mobile learning is as under.

2.1. 1. Distance learning:

Distance learning is an arrangement of education where learners and teachers are logistically alienated and learning of learners takes place from distance. The affiliation of institute offering education is from distance place. The dictionary meaning of distance learning is; it is a method of studying in which lectures are broadcast or lessons are conducted by correspondence, without the student needing to attend a school or college. D-Learning makes the learning free from attending conventional classroom system where learner get education within four walls of class-room and get education as per the previously decided time and place.

Distance education or D-Learning has a history of discussion for almost two centuries (William,2009). The literature on D-Learning since its beginning shows that many linguists, educationists and researchers use contradictory definitions of distance education and distance learning. Frederick B. King, Michael F. Young, Kelly Drivere-Richmond, P. G. Schrader (2001) does not support the interchangeable use of the terms distance learning and distance education. They referred distance learning as an ability whereas distance

education as an activity within the ability of learning at a distance. Though, both the definitions are still limited by the differences in time and place (Volery & Lord, 2000). In 1960s and 1970s, computer technology had been introduced which brought frequent change in almost every field. As new technologies became universal and its application appeared to be covered all types of instruction, the term distance learning once again was used to focus on its limitations associated with 'distance', i.e. time and place (Guilar & Loring, 2008; Stepich, Lehman& Russell, 2000). The term then paves way to other types of learning instructions, e.g. E-Learning, online learning, technology mediated learning, collaborative learning, virtual learning, web-based instructions etc. (Conrad, 2006).

2.1. 2. The E-learning

The E-learning was not a matter of discussion when it was introduced along with the Distance-Learning. Some authors said that E-learning is just an explorative definition of Distance-learning while some others define E-learning as a systemic involvement of technology into Education where it is used as a tool for teaching- learning process. In particular, Nichols (2003) defines E-Learning as strictly being accessible using technological tools that are either web-based, web distributed, or web capable. Ellis (2004) disagrees with him saying that E-Learning not only covers web based contents or instructions distributed via CD-ROM, Internet or Intranet but also includes audio and video tapes, satellite broadcast and interactive TV. Although each definition includes technological characteristics of E-Learning, Leypold, Nolting, Tavangarian, Voigt and Roser (2004) as well as Bolchini, Triacca and Inversini (2004) felt that the technology being used in E-Learning is not sufficient in defining E-Learning in its real sense. Triacca et al. states that E-Learning is a type of online learning. Still both Ellis (2004) and Triacca et al. (2004) believe that to make the definition truly applicable in describing the learning experience, some level of interactivity needs to be considered.

2.1. 3. Mobile-learning

Along with the development in technology, the procedure and catalyst of providing D-Learning or Distance learning to the learners has changed. In order to achieve the goals and objectives of Distance-learning, well equipped computer lab and manual continuous correspondence were the prime necessity to run the online course from the distance. In this digital age, the technology has made the work smoother. The introduction of mobile device

into education is the best example of smooth produce of distance learning. Now learner can learn from anywhere, anyplace and anytime wirelessly at their own leisure time.

This new gadgets of technology has provided virtual classroom where learners can communication with each other as well as they can ask questions to the tutor or mentor from anyplace and anytime too. Use of electronic devices in spreading learning prospects in Distance Learning paves way for E-Learning or Electronic Learning. And in the same way use of small, handy and mobile electronic devices paves way for a new mode of delivery, M-Learning or Mobile Learning. Explosion of this new mode of delivering learning opportunities is supported by technological advances of the century. Prolonged periods, frustrating time schedule and long lecture session have left students almost in frenzy and far away from learning. Students remain more rely on word for word explanation and mug up texts. M-Learning has created new mode sharing educational materials and make the students free from tiresome schedule of learning. It enables a learner to take courses at his convenience; at a location he desires, at a time he chooses.

Although D-Learning, E-Learning and M-Learning have their own incongruities, they take account of general traits of communication between tutor and learner who are sometime logistically unconnected. And this commonness creates perplexity which leads to the methods and approaches being interchangeably used.

The Distance Learning or D-Learning is learning where the tutor and the learner are not present at the same place and at the same time E-Learning is a subset of D-Learning where technological gadgets are used to provide learning situation to the learners from a distance. New acronym M-Learning can be called the subset of D-Learning and E-Learning which uses of small, handy and attractive mobile device and its features such as camera, audio-video recording, calendar, memo, voice recognition application and many inbuilt as well as supported applications for the purpose of learning and getting related information of any field.

2.1. 4. Definition of mobile -Learning

The term mobile learning has been modifying due to the rapid development of the field and the different meanings behind to the term “mobile” (Ferreira et al., 2013; Sharples, Taylor, & Vavoula, 2007; Traxler, 2007, 2011a). Mobile learning was initially defined as a sub-set of e-learning (Caudill, 2007; Chinnery, 2006; Quinn, 2000). Initial projects on

mobile learning took place with pilot studies and trials adapting existing e-learning instruction to mobile devices (Kukulska-Hulme & Traxler, 2005; Trifonova & Ronchetti, 2003).

Mobile devices are small electronic technologies that people can carry with them at any place, any time, and include all types of cell phones, mp3 players, iPods and personal digital assistants (PDAs), digital dictionaries, and ebook readers (Chinnery, 2006; Corbeil & Valdes-Corbeil, 2007; Cui & Wang, 2008; Stockwell, 2010).

After collating all the related literature, another round of searches was conducted using the reference lists found in the literature yielded by the electronic search to find any omitted but relevant works. Such related literature were reviewed in context to co-relate the stated study more precisely in finding the gap between earlier research and present research.

Kukulska-Hulme & Traxler (2005) explored that the mobile learning is mediated by the assistance of small portable devices available most of the time and that can be adapted to the learner's immediate context.

Keegan (2005) argued that mobile learning should focus on the mobility of the device, and he defined it as learning on electronic devices small enough to fit in a pocket or purse.

Since the literature presents innumerable definitions for mobile learning, the term, as used in this dissertation study is "Flexible and easy language learning to be intervened through mobile device at any-time, anywhere and any-place.

2.2. Review of related research papers from Gujarat

Atul Patel, and H Rathod (2011) the study has the genuine effort to prove that mobile devices are used frequently by learners in each and every academic as well as non-academic action. The main objective of the study was to find out the usage –habit of mobile device by learners and their pattern and nature of work. The study has found that students are using mobile phones for multi-purposes such as messaging, purchasing, and listening to music etc.

Mamta Amin(2013) study is informative in nature. Researcher has collected very informative materials and suggested four stages before to frame curriculum and tasks of mobile assisted language. The stages suggested by researcher were 1) Perceived Usefulness 2) Perceived Ease of Use 3) Subjective Norms 4) Economic Affordability. The

study has suggested that the expert panel for curriculum need to concentrate on various issues related to the usage and application of mobile assisted language learning.

Kamlesh Joshi, and Akash Thakkar(2013), the study explores the use and benefit of mobile device in education. To confirm this assertion, the researcher has prepared an application with the help of online application designer apps. This experimental application consisted of syllabus of GTU offered subject “Contributor personality development”. The main objective of keeping this GTU offered subject CPD was to develop LSRW skills among selected students and to prove the mobile device as a tool to learn as well as to teach English to heterogeneous class of engineering college. To allege above assertions, the researcher has selected 10 well versed students as the Sampling of research. Having done the random sampling, Contents and multiple questions were sent on the android phone of selected students. The results analysis of this short survey and experiment proved that mobile devices are really a useful tool for teaching –learning process of English. The conclusion of this paper has picked out many advantages and few disadvantages of mobile assisted language learning.

Solanki, Milind (2016), study reveals the importance and advantage of Mobile devices for learning English from anywhere. Mobile device becomes an inevitable necessity and perceptible requirement for everybody. The introduction of newly updated mobile devices opens the additional prospect and scope for learning English. In order to prove the necessity and usefulness of mobile device, researcher has discussed the detail note of inbuilt features such as E-mail, Blogs, Instant Messenger, Video Calling, and SMS. These inbuilt features are available in most of the smart phone and the learner should use them for language learning purpose too. The researcher concluded paper by describing the advantage and limitation of Mobile assisted language learning.

Binny Vaghela (2019), study provides in-depth information related to significance of mobile assisted language learning and in 21st century. By comparing mobile assisted language learning procedure with traditional ways of teaching and learning procedure of classroom situation, researcher has advocated using mobile device for the purpose of education. Further researcher has depicted the detail information of literature review as well as the Framework for the Rational Analysis of Mobile Education (FRAME) have been incorporated along with mobile –learning process and mobile-learning activities. In

concluding part, the need of mobile –learning has been suggested through more innovative and authentic researches which are able to draw attention of educators and authority.

2.3. Review of related research papers nationally

Shanmugapriya and Tamilarasi (2015), the study is informative as well as quasi experimental in nature. Researcher had reviewed few related literature review and had advocated to use mobile phone in language learning situation. Mobile learning is the best tool to develop LSRW skills. According to researcher, the mobile friendly applications for language learning are limitless. Many activities such as quizzes, tests, podcast, video cast, flashcards, surveys and polls etc. are possible through these applications. The learners can learn pronunciation, listening, speaking, reading, and writing and vocabulary skills. The learners can be occupied with learning activities as long as they can be updated with new lessons, exercises and learning objects like podcast and video cast. The generic existing model of mobile assisted language learning (MALL) applications are normally supported with 'pull' model where the learner has to make the request to the server for ensuring the availability of the new learning content, test results, new exercises, feedback, blogs, forum opinions, messages from the instructor and their fellow learners. This model decreases the motivation of the students in enhancing their language skills and the duration they spend for improvising these skills through mobile devices. In the concluding part, the researcher suggested the need for designing m-learning applications with 'push' model using Push Notifications by Android, iOS, Blackberry, Windows Phone and other mobile platforms.

Suneetha Yedla (2013), the study deals with how to make an effective, appropriate and interactive use of mobile-related technologies at University level and at professional college level teaching system. To achieve these objectives, the researcher has explained the concept of Mobile assisted language learning; its benefits and importance in learning Language. The study has suggested some classroom procedure where mobile device may help students to learn language as well as to make their work easy and comfortable.

Valarmathi, K. E.(2015), the study explores numerous activities and possibilities of using mobile device for English language learning with the help of inbuilt features of mobile device such as SMS, Camera, Video –recording and text to speech. The study has suggested activities such as creating short dialogue through audio –recording feature; Reading of recorded audio stories with the ability to follow along with the printed text while listening to develop both listening and reading skills. Study has also focused on

software i.e. J2ME and Net Beans for developing language learning game like environment. Study explores that the user interacts with the mobile phone to play interactive games for language learning. The server (web server) maintains the database for contents and exercises. Through web gateway user connects to web server for accessing contents and exercises. In this game the user will be shown synonyms and antonyms questions for vocabulary building one at a time and he has to type the answer in the provided text box. If the user answers correctly, next question will be displayed. There are few sets of the questions stored in the database each set contains five questions. These sets are organized on level-basis. The complexity of the levels increases as the user keeps on answering. If the user is not able to answer any question, the game is over and the user will be shown the solution. The study has concluded that a Mobile device supports language learning in class rooms and can direct towards a variety of learning styles in a timely and interactive fashion. The study also reveals the paradigm shift from e-learning to m-learning.

Chhikara Mayur (2016), the study emphasizes on using smart phones while learning English as a foreign language with the help of various activities through inbuilt Mobile device features such as Email, Gmail help learners to develop four basic motor skills i.e. reading, writing, speaking, and listening. In order to achieve the stated objective of the study, the researcher has framed four days programme from 28 students of M.Tech. CSE, Deenbandhu Chhotu Ram University of Science and Technology, Mutual was taken as target audience. They have been asked to bring their smart phones in the classroom for four days. Internet facility was provided to them in the form of Wi-Fi. The students were asked to use a common email address for the whole class. Teacher sent the message/instructions to the common address and everyone received it on the spot. Students followed the instructions sent to them and everyday their performance was investigated regarding enhancement in their capability for learning language based upon their filled up response sheets sent back to the teacher. The response sheets had questions regarding development of four skills: reading, writing, speaking, listening and use of mobile phones in relation to educational activities. Further the researcher advocated some supporting applications for developing listening, reading, speaking and writing. The result of this study revealed that all the 28 students agreed fully that Mobile devices become an important tool for learning language.

Nikam, Sandip J. (2019), study promoted the mobile device as tool for language learning. English language is link language which connects people to the world. As English is taught

as a second language in most of the regions of India, it is very much difficult task for Indian teachers to teach the English language by adopting traditional methods and approaches. The researcher has prepared a questionnaire and did the survey that most of the youngsters use smart phones with internet connectivity. These smart phones are used for personal purpose only. In these situations, applications of mobile device for language learning purpose would prove to be motivational force to pay attention towards the issue of English language teaching-learning process. To fulfil these objectives, the researcher has randomly selected 60 post-graduation (M.A. English 2015-16) students and 120 the first year B.A students. The quasi-experiment was done for fifteen days in the year 2015-16. They introduced popular mobile applications such as British Council App, Duolingo, Two Min English, Real English, WhatsApp and Ipadio. They experimented with them to develop their English with the help of the above-mentioned smart phone applications. The observations made by them were; Students developed great interest in English language learning; They found a splendid change in teaching and learning process of English; Students enjoyed the sessions because they found it very interesting to learn a language on mobile phones; Some of them created audio tracks of their voice and overjoyed by listening to their recordings; Students become competent in the use of English language; They started communicating with their classmates.

B. Velangini Kumari (2017) the study explores the mobile as an effective tool for learning Communication skills. This study is attempted to measure English communication skills of round about hundred from B.A, B.Com, B. Sc students of Rayalaseema University, A.P. by down loading STEP application (an online tool for testing English proficiency of students). Results of STEP test was analyzed in this paper. The paper concludes with finding that the tool used to examine their level of communication was useful to know their problems in LSRW skills and how to get better them further. They became conscious of their insufficient terminology, poor reading comprehension, poor listening skill and lack of proper grammar knowledge. Thus the study proposes application based English learning/teaching for UG students.

The research paper of Dr.G.V.S.Ananta Lakshmi, Professor & Head, Department of English from Anurag Group of Institutions, JNT University, Telangana., India focuses on position of English language teacher in engineering colleges and role of mobile technology in English teaching and learning procedure. Usage of mobile apps and utilization of What's App groups for language learning purpose is thoroughly discussed in the present paper.

Finally, this paper proposes an innovative activity for grammar practice using mobile technology which is experimented with author's students and achieved good results.

Ramya Gangaamaran, Madhumathi Pasupathi (2017) study suggests that Mobile device with its powerful and advanced features helps in developing LSRW skills. To prove this suggestion the researchers have reviewed many mobile applications and have made categorization of mobile apps based on primary, secondary and tertiary learners. Researchers have taken the help of primary data such as articles review, review of dissertations and analysis, evaluation of the mobile apps for language learning. Review of these studies became the source for researchers to categorize an appropriate mobile app which can be helpful as per the mindset and age of learner. Since these apps are developed to improve the language skills of the learners, stress should be principally made on the acquirement of language skills such as listening, speaking, reading and writing skills through mobile technology. Thus the finding shows that listening skills are better acquired through apps more than that of other language skills.

Naveen Mehta(2012) This paper entitled as "Mobile Phone Technology in English Teaching: Causes & Concerns" is informative in nature. The researcher has claimed that mobile device with its handy, portable and anywhere anytime helpful features are very much effective in building up mortar skills such as Listening, Speaking, Reading and Writing. The main objective of this paper is to consider mobile device and its features as supportive tool for students as well as teachers during their language learning activities in the classroom. Furthermore researcher argues that Mobile devices are attaining gigantic status among students and teachers as these devices are small, smart, portable, and comfortable to utilize. . Use of Mobile phones is increasing by leaps and bounds. Mobile Phones are the most powerful, popular and fast medium of communication. Teachers of English can take advantage of all the great features and capabilities of mobile phones and students can learn English in an easier and more effective way. The present paper is an attempt to explore mobile phone technology that be incorporated in learning English language.

K, Lakshmi, and Dr. Nageswari R (2017) the present paper is an attempt to reveal the effectiveness of mobile device as a tool to learn vocabulary in the better way than traditional way of leaning vocabulary. To serve this objective, the author has divided group of 160 students into two groups. i.e. Control group and experimental group. These students

were from the entry level students of the Bachelor of Commerce and Bachelor of Business Administration (BBA) at VIT University, Vellore, Tamilnadu, India. This paper aims to improve the academic vocabulary among tertiary level learners using mobile applications through self-study and monitoring modes. This study emphasized on effective learning of academic vocabulary using IELTS Academic mobile app. The experimental group was provided a questionnaire in which the usage trend of mobile device among entry level students as well as the information regarding learning vocabulary was aptly incorporated through open and close ended questions. . A twenty hours -session was conducted for the experiment between the pre-test and the post test. A pre-test was conducted to sixty participants with the suggested criteria. Another set of thirty students from the sample of sixty, were selected as the Control group of the study. The participants in this group were provided with the same set of topics and activities of experimental group. They were, in contrary, approached through traditional methods such as using passages to find out the meanings of unknown vocabulary. Notebooks were maintained to write down the unknown words and their meanings and learn it by-heart without situational. However, the method was considered less effective than the method suggested by introducing IELTS application as the best application as well as tool to learn vocabulary with the help of mobile devices.

2.4. Review of related research papers internationally

Chen, I. J., Chang (2015), an attempt has been made to the impact of portable device on performance efficiency in the immediate recall task of the English listening comprehension. Personal digital assistant (PDA) was taken as a tool for investigating the effects of simultaneous written text on the comprehension of spoken English as a foreign language. Eighty-seven university students, studying in applied foreign languages were randomly assigned to either listening with auditory materials only, or listening with identical and concurrent written text. Performance efficiency was used to provide a better indicator of the quality of learning. The results revealed that for learners with lower English levels, the presence of concurrent written text elicited higher performance efficiency in the immediate recall task of the English listening comprehension.

Azar, Ali Sorayyaei (2015), the study is an attempt to investigate the effectiveness of cell-phone in Iranian L2 listening comprehension, and their attitudes toward the mobile technology in educational centres. On the first day of the course, students were randomly assigned to two groups. Thirty-five of the participants were randomly assigned to the

experimental group, 18 females and 17 males. Second group was the comparison group consisted of the other 35 participants, 17 of whom were female, and 18 were male. The same book, *Study Listening* by Tony Lynch (2007), was taught for a period of 16 sessions and two sessions were allocated to the pre-test and post-test. The teaching procedures followed by both groups were similar; both groups attended the classes three days a week. The classes lasted for a period six weeks. Each unit of the book consisted of some exercises on the skill or sub-skill explained during the session. The only difference between the two groups was that the experimental group were given the MALL Questionnaire and required to fill it out based on the explanations given by the teacher, Explanations of the items were provided, when it was felt necessary. The experimental group was given a general picture of what the whole project was about. The participants were asked for their consent to participate in the study in advance. During the whole term the participants in the experimental group were introduced to different audio-books. For ten minutes or so for the first few sessions, they were familiarized with how to utilize them in ways that best serves their own specific purposes. At the end of the term the same MALL Questionnaire was given to the participants in the experimental group to see how much their attitudes had changed and how helpful they then found MALL to be useful to develop listening skill. The results of this study indicated that mobile learning is an effective way of improving listening comprehension. Furthermore, the results of this research showed that cell phones are an interesting and innovative way for learning a new language. The participants said that MALL has great impact in language learning. They believed that cell-phone based audio-books is more effective than CD-ROM based audio books in their listening comprehension. It can give more opportunities to learn and they can listen to their interest topics anywhere and anytime.

Demouy et al (2016). Study explores the Interactive Oral Assessment (IOA) project was to trial Learnosity voice response system known as Talkback® for use in the formative and summative assessment of listening and speaking skills. This research paper search paper is jointly published by Demouy, Valerie; Eardley, Annie; Shrestha, Prithvi and Kukulska-Hulme, Agnes at The Open University. Although students were offered regular tutorials (face-to-face and online) and work through a series of speaking activities on DVD-ROMs, oral practice remained a crucial issue in distance learning. In collaboration with Learnosity, they offered a 6-week free pilot module aimed at two groups of students who had just completed French Beginners or level-1 English for Academic Purposes

(EAP). They designed activities practising oral competency by using Talkback® (powered by Learnosity). Students accessed them on their mobile, landline, Skype or through an iPhone App. Recordings were instantly available on the Learnosity website to both students and tutors, who could mark and provide feedback. Both groups reported weekly via short online questionnaires recording their experiences. This paper is in the form of discussion the findings of the project and their implications.

Begum, Roksana (2016), the aim of this study was to investigate the potentiality of cell phone use in the EFL classroom of Bangladesh as an instructional tool. The researcher conducted a case study on Jahangir Nagar University of Bangladesh. For the study, some SMS based class tests were conducted in the English Department of the university where one hundred undergraduate EFL students participated as subjects. Before the tests, Some EFL teachers sent mobile SMS to students as a means of instruction for teaching appropriate use of preposition for one week. After one week, the teachers took some class tests where the test questions were delivered via SMS and the students also answered the test questions by mobile SMS. The author collected data through students' questionnaires, and teachers' interview records and classroom observation reports. The research results demonstrated that cell phone has great potential as an instructional tool despite some challenges that can be resolved by the sincere attempts of the authority, teachers and by changing the ethical point of view that consider cell phones as mere a disturbing factor in the classroom.

Kim, D., Rueckert (2016), the study has focused on how students perceive the use of mobile devices to create a personalized learning experience outside the classroom. Fifty-three students in three graduate TESOL classes participated in this study. All participants completed five class projects designed to help them explore mobile learning experiences with their own mobile devices, incorporating technologies such as YouTube and Voice Thread. They identified characteristics of these mobile users in Mobile Language Learning (MLL), and the results illuminate how MLL opens up new pedagogical scaffoldings.

Wang Shudong, and Smith Simon(2016) The present paper, published in LL&T Journal is survey and try-out of an ongoing language learning project done in years 2010 to 2012 at Centre for Foreign Language Education, Shimane University, Japan. After explaining the need and importance of mobile phone in language learning situation, the authors have documented the whole procedure of this ongoing language learning project. They

examined both the feasibility and the limitations of developing English reading and grammar skills through the interface of mobile phones. Throughout the project, the database of reading and grammar exercise materials had been created. For creating reading materials few students from the same university have been selected and they had been asked to write essays on different topics. They had also been asked to write the essays within the 140 words limit so that these essays could have been easily accessed on the small screen of mobile device. For creating Grammar exercises, two types of Grammar exercises had been made. The first was about the basic theoretical knowledge of Grammar and the second was about the multiple choice question based quiz which covered nouns, the subjunctive mood, participles, and negative forms. In order to hold the interest of students a short story, a joke or an anecdote were also included in preparing the database. After creating this much database, the reading and grammar materials were uploaded to the server. These were sent to students through the server's email system as an email in plain text with the URLs attached. For the purpose of sending email to students, the personal Email ID of the first year under graduate students was collected. Having received the mail on mobile phone, Students used to read or took part in any aspect of the materials that appealed to them. For every reading text, a simple comprehension exercise was designed to check student understanding. Grammar quizzes were then sent via URLs attached to each grammar point review. When students opened their email, the reading materials could be read as messages, so students did not need to go beyond the link provided. A comment/quiz system was used for the purpose of student-teacher interaction. The data from the project feedback were collected using the methods such as online surveys, server log analysis, and interviews. Three consecutive web surveys written in Japanese were conducted among the subscribers in 2010, 2011, and 2012. The data presented in this paper is from survey conducted in April 2012. Information gathered from participants and server logs indicate that reading and learning grammar using mobile devices is regarded as a positive language experience. The mobile device can be become an innovative and interesting tool to learn and teach English for students as well as teachers.

Gromik, Nicolas S.(2016), study conducted at a Japanese national university. Nine participants used the video recording feature on their cell phones to produce weekly video productions. The task required that participants produce one 30-second video on a teacher-selected topic. Observations revealed the process of video creation with a cell phone. The weekly video performances indicated that students were able to increase the number of

words they spoke in one monologue. The surveys indicated that participants believed that using the cell phone video recording feature was a useful activity. However, they did not believe that such a task was transferable to other courses. The discussion emphasizes that, due to technological advances, educators need to understand the benefits and challenges of integrating cell phone devices as learning tools in their classrooms. In addition, whereas in the past researchers focused on reading and writing skills, this article reveals that it is now possible to use the video recording feature to evaluate learners' speaking skills.

Sanaz Jafari, and Azizeh Chalak (2016) This paper is in the form of experiment done on a group of 60 students of Iranian junior high school. The prime intend of the study was to investigate the role of WhatsApp in the vocabulary learning improvement of Iranian junior high school students. The writer has used a mixed method design; a group of 60 students including 30 male and 30 female students studying at two male and female junior high schools in Isfahan, Iran participated in the study. These two groups were entitled as control group and experimental group. In the first phase; pre-test were taken for checking their vocabulary knowledge. The Experimental group were asked to install WhatsApp on their cell phones and they electronically received vocabulary instructions where as The participants in the Control group were taught vocabularies of their textbook inside the classroom and repeated, practiced, and did the exercises in the book by traditional method used in all Iranian schools for teaching English to students. Four English classes were instructed and the experimental group received vocabulary instructions electronically four days a week for four weeks using the WhatsApp. The results revealed that using WhatsApp had significant role in vocabulary learning of the students. The results also showed that there was not a substantial difference between male and female students regarding their vocabulary knowledge after using WhatsApp. The findings of this study can be beneficial to Iranian students, teachers, language schools, policy makers, and syllabus designers.

Babak Ghasemi, et al.(2011). Study attempts to clarify the educational role of U-Tube in learning a second or foreign language. The fact is today there are many resources to learn languages online. You have WebPages, radio, online TV and even YouTube. At this juncture it is not a matter of finding resources, but finding resources of value that will help you learn. Learners have faster access to high quality ubiquitous web services, UTube as a video clip server is being used more and more by E-learners today. UTube provides authentic up-to date materials of everyday English used by everyday people. Finally, this

paper highlights advantages and disadvantages of using U-Tube in learning a second or foreign language.

Ivana Simonova (2015), the study presents the research results from the field of mobile-assisted instruction of English for specific purposes for technical and engineering students. The research was structured in three phases: (1) Questionnaire 1 was applied to detect what sources of information students use in higher education, what types of mobile devices they own, what purposes they use them for, (2) how the process of instruction, particularly students' autonomous work supported by mobile devices ran, (3) students' feedback was collected by Questionnaire 2 to evaluate the mobile-assisted learning and provide proposals for future exploitation of mobile devices in higher technical language education. The MALL was piloted in the sample group of 203 students of the Faculty of Informatics and Management, University of Hradec Kralove, who enrolled in IT and Management study programmes. The results show students are sufficiently equipped with mobile technologies and exploit them for various purposes, including education and ESP. At the end, examples of helpful mobile applications are presented.

2.5. Review of related research papers on Edmodo Application

Kandappan Balasubramaniana, Jaykumar Vb, Leena Nitin Fukeyb (2014) Study entitled as "Student preference towards the use of Edmodo as a learning platform to create responsible learning environment" is informative in nature. The researcher here tried to find whether Edmodo is an authentic teaching tool in creating classroom like situation or not. In this Edmodo class, students can enthusiastically take part and can resolve their doubt regarding language learning. The study was carried out at a private university in Selangor district at Malaysia. The participants were 285 degree students, out of which 249 students was taken for the analysis as they fall under the Edmodo users. This research study used quantities method and researchers took 5-point Likert scale ranging from strongly agrees to strongly disagree as a tool for gathering answers of questionnaire. The survey question was designed using the RASE (Resources, Activity, Support and Evaluation) model to support the student preference on using the Edmodo in the teaching and learning arena. The survey was developed using Google drive and was shared among the students through email and other sources. The result of the study shows that incorporating Edmodo encourages both student engagement and responsible learning when particular Edmodo features are employed. The result through the analysis supports that the

students' preference of using Edmodo is mainly towards for the resources, support and communication such as forum, discussions and also for online activities. Students find Edmodo a wonderful and user-friendly social learning platform that enables them to enjoy working on an online class.

Ali Zuraina (2015), the objective of the study is to identify students' perceptions of using possible platforms such as social-networking sites, blogs, and wikis, video-sharing, web applications etc. in language learning and their views on the possibility of using Edmodo to supplement face-to-face discussions in English language classes. The study involved 24 samples who undergone focus group interview as the method of collecting data. Three open-ended interview items were used to measure students' perceptions of their experiences when Edmodo is used in language classes. The first question concerned with collecting students' views on their general feelings about using Edmodo. The second item required them to identify the significant use of Edmodo in their English subjects. The final item required them to suggest the possibility of having Edmodo as a platform to reinforce direct discussions among the students. To ensure validity of the data obtained, triangulation was done by conducting an indirect observation when students used Edmodo in English class facilitated by the class teacher. In general; results of the study revealed mixed reviews, where some students agreed with the use of Edmodo while others expressed negative opinions towards its use. In addition, two broad themes emerged from analysis of the data. These findings have significant implications in that the teacher, in the first place, needs to be equipped with the knowledge of using the platform to benefit the students. Nevertheless, this research extends our knowledge for the understanding of how to integrate Web 2.0 technologies in language classes.

Ambarwati Hasanah, Ari Purnawan (2016) the study entitled as "Improving Students' Productive Skills through Edmodo Site" is experimental. Researchers kept 32 students of class XI as their samples. The study was divided into three phases. In the first phase information about Edmodo application, observation, interview etc procedures were done for the purpose of collecting qualitative data while in the second and third phase, the researchers arranged pre-test and post test for collecting qualitative data. The results of this research demonstrate that the use of the Edmodo site as a tool in teaching productive skills could grow the students' motivation, score, and classroom interaction. The students could build their teamwork and develop their communication by online learning. The uses of Edmodo site could help the students to comprehend the material that had been taught in the

classroom. Furthermore, the improvement of the teaching of productive skills gave impact to the students' achievement. From the data above, it can be concluded that the use of Edmodo site as the media can improve the teaching in productive skill.

Qismullah Yusuf, Yunisrina Qismullah Yusuf, Nira Erdiana, Arif Rizky Pratama (2018) The study entitled as "Engaging with Edmodo to teach English writing of narrative texts to EFL students" is an experimental research based on the effect of teaching English writing of narrative texts by using Edmodo learning media through blended learning. The sample of this study was tenth-grade students in one of the senior high schools in Banda Aceh, Indonesia. The study was implemented by taking pre-test, treatment and post test. In order to achieve the objective of research, the researcher had adopted random sampling method and selected 24 students as the sample size of research. Pre-test was taken in the first session. Students were asked to write something about the legendary person. In the second, third and fourth session, they had been taught to use Edmodo application and also asked them to submit the detail paragraph on their view about legendary persons. Later their assignments were discussed in the classroom. In the next stage the post test was taken where they had been asked to write the same. The result analysis was compared and questionnaire regarding their experience of using Edmodo proved that Edmodo is really a powerful platform for exploring language learning activities.

2.6. Review of related Mobile learning projects:

1) MOBI learn :<http://www.mobilelearn.org/>

The MOBIlearn project is at the University of Birmingham. It is jointly run by 24 partners and from 14 universities, its target areas are Europe, Israel, the USA and Australia. It investigates context-sensitive approaches to informal problem based and workplace learning.

A critical component of MOBI-learn project, according to Vavoula, Sharples, O'Malley and Taylor is completion of a reflective diary in which learners record all learning episodes, whether mobile or not, experienced during their day. Vavoula, Lefrere, O'malley, Sharples and Taylor have also contributed to the project in producing suggested guidelines for learning, teaching and tutoring in the mobile environment.

2) M-learning: <http://www.M-learning.org/index.shtml>

This project was introduced by Attewell and Webster, the m-learning project is a three year pan-European collaborative research and development initiative supported by the European Union. Through the employment of mobile technologies the project seeks to enhance the literacy and numeracy learning experiences of young adults who have disengaged from full time education. Embracing two university based research units, two commercial companies and an independent not-for-profit national educational R&D agency in Italy, Sweden and the United Kingdom. The project had been started in 2004 to check the effect of mobile technology on young students, who have disengaged from full time education. In the first phase they investigated the role of mobile devices making young adults involve in study. Mobile devices could improve literary & numeracy skill in students was a notable observation.

The second phase of project was illustrated by Attewell and savill Smith in 2005 after advantages of mobile technology are It allows truly anywhere, anytime, personalized learning; it can be used to enliven, or add variety to conventional lessons or courses, it can be used to remove some of the formal- designs which contemporary learners may find unattractive or frightening and can make learning fun; it can help deliver and support literacy, numeracy and language improvising; it can help learners and teachers to recognize and build on existing basic literacy skills which allows young people to communicate in notational via text messages; it facilitates both individual and collaborative learning experiences; it enables discrete learning in the sensitive area of literacy, it can help to combat resistance to the use of ICI by providing a bridge between mobile phone literacy and PC literacy and it has been observed to help young disconnected learners to remain more focused for longer periods.

3) CAERUS

The CAERUS project was presented by LAURA NAISMITH at Birmingham University. This project has attempted to develop a complete context aware educational resource system and supported personalized learning opportunities for outdoor tourist sites and educational centers. The project has developed a hand-held delivery application for pocket PC devices with GPS capabilities which connect to a desktop administration system, and encompasses the ability to add maps, define regions of interest and add theme based multimedia tours.

4) From e-learning to M-learning:

In the year 2002, the project "from e-learning to M-learning" was initiated by Sony Ericsson team and MOBI learn team. This was one of the first path finding m-learning projects. The researchers demonstrated how it is possible to provide access to e-learning content on a mobile phone. Students from several countries used the material and rated it as being satisfying. They could access materials from anywhere and could share among each other.

5) mExplorer :

The project 'mExplorer' by Schwabe and Goth (2005) was originally started as part of the EU-project MOBIlearn. It is an orientation game guiding university campus. The tasks in the game were used to engage the learner for further exploration of the environment. A first approach of simple quiz tasks showed that this didn't lead to an active exploration. The next step was the designed interactive tasks with high context integration. These tasks were dependent on a specific location and environment for instance, a learner had to find some information in a specific book. To fulfill this task, he had to find the library to learn material handling techniques as library information system to write down the code of the book, understand the library code and the organization of the library and finally locate the books. So the tool was used to guide the student into a deeper reflection of his surroundings.

6) Content Construction: Photo-study:

This project was presented by Joseph, Binsted, et al in 2005. It was originally made for learning languages. Here language learning students created photos or short movies and annotated them with learned vocabulary. This material was transferred to a database where it was rated by experts. This material was also provided to other learners who could discuss the material or undertake random learning, which also provided material for mutual exchange and rating. In this way the learners could actively learn languages. HandLeR was demonstrated by Sharples, Corlett et al. in m-learning project 2002. HandLeR was a device especially designed for young learners aged 7 to 11. The learner could use it for reading learning material, image annotation, generation of idea maps and communication with other users. The system is explicitly designed for individual learning. The learners can use & toss the device at their will. There is no guidance being provided by the mobile device

on how to use it for learning. HandLeR is a tool, the usage of which is fully learner controlled.

7) WELCOME: Wireless E-learning and Communication Environment:

Lehner and Nosekabel (2002) outline the primary components of the WELCOME (Wireless-E-Learning and Communication Environment) project at the University of Regensburg. The project is based on the premise that mobile/electronic education should not attempt to replace traditional education with tutors and instructors, but support both student and teacher by providing services that facilitate teaching, learning and education-related administrative tasks. The planned system employs an integrative approach combining a variety of devices (mobile and non-mobile) through a variety of transmitting techniques (wired and wireless)

8) ECU (Edith Cowan University) Advantage project :

This project was presented by Pospisil and Millar at ASCILITE 2005. In this project they explored the implications of m-learning via a laptop trial on its campus, seeking to improve student learning outcomes in using mobile computing to enhance collaboration, flexibility and information access.

9) WMUTE : Wireless, mobile and ubiquitous technologies in education.

WMUTE is an organization which handles communication between local and international researchers and makes researchers familiar with the market needs related to mobile learning. Three international conferences had been organized under this title. The main objectives of WMUTE were to provide exposure to educators, learners as well as market representatives who have been continuously evolving innovative mobile friendly software.

2.7. Review of related theses/dissertations

Kurtz Lindsey (2016), study reports on language learners' daily use of smart phones to supplement their language learning. Three non-native speakers of English completed smart phone use logs and were interviewed over a six-week period in order to understand their attitudes and habits regarding their smart phone use. The purpose of this study was to give voice to contemporary language learners about their use of this technology so that their regular use of it may be understood. The study reports that these learners made regular use

of the smart phone as a dictionary, as a study tool for standardized tests and for communication purposes across various times and locations.

Lai Wing-hong(2014), study is to create Mobile Immersion on smart phone using Instant Messenger, WhatsApp. 45 Form 1 (7th Grade) students participated in a 3-month experiment. They were divided into two big groups: one with Mobile Immersion (Mobile Group) and the other without (Control Group). A vocabulary list of 200 high-frequency verbs was the main learning material. Net Gain in vocabulary score between pre-test and post-test was used to measure their learning progress. The statistics show no significant difference between the two groups' means. However, within Mobile Group, there is significant correlation between individual's chat frequency and vocabulary gain. Furthermore, chat histories of participants reveal a possible theme that has implications for researchers and educators. A questionnaire is also used to survey participants' attitudes towards the Mobile Immersion. This paper shares the experience from the case study and draws insights into a new direction contributing to the knowledge base of Second Language Acquisition and Mobile-Assisted Language Learning.

Cowan, Melissa Rachael(2015), study provides the review of five language learning mobile applications that are selected from mammoth language learning applications available in Android as well as Apple i-phone. Researcher has selected Five Applications such as 'SuVoBi' for Vocabulary, 'Learn English' for Vocabulary and photo recognition, 'Listening Drill' for Audio-Video learning, 'Vocab Lite' for Vocabulary, 'English Pronunciation' Speaking, Recording, And Listening. All these applications have been selected from Apple iTunes store as the result of survey revealed that the target audience of researcher possessed i-phone more than the Android and other similar mobile devices. The researcher analyzed the detail description of the content, design, the basic information and the data of these five selected applications and also did the analysis of 25 customer reviews of the same applications. The findings revealed that the free i-Pad language-learning apps provided language content related to vocabulary, conversation, exam preparation and grammar. The free language-learning apps descriptions indicated communicative skills through features that promote practice for reading, writing and speaking. The methods and approaches that apps offer promote learning and practice while accomplishing similar goals. While only a handful of methods and approaches were presented in this study, this does not limit the app's use within the classroom. In fact, a clear outline of teaching theories has been provided based on reviews as well as research of the app.

Agnel Parmar (2015), the objective of this research is to identify effective of mobile devices especially smart phones on young generation who are learning English at UG level. The researcher has used IT awareness questionnaire for to know students' demographic information and awareness and use of mobile device applications and operations. Factors concerning acceptance of Information Technology were identified with the amalgamation of two distinct models, UTAUT 1 and UTAUT 2 of IT acceptance, empirically validated by Venkatesh et al. Students' reaction to each factor was collected and collated using UTAUT Questionnaire and then analysed using various statistical tests like Reliability Analysis, Factor Analysis, and Pearson Correlation.

The research has been taken place at a well-known management college in Anand, Gujarat.143 students studying communication skills were the sample of the study. Researcher has designed one learning module and each M-Learning activity was carefully drafted keeping in mind M-Learning principles found during review of related literature task and Frame Model offered by Margatette Koole (2005) and Ally (2006)..It was four months programme where each activity has been sent through online educational platform such as Edmodo and what ups. At the completion of forth month, data have been collected and analysed. Researcher has also taken interview and post feedback sessions. This way the researcher became successful to find acceptance and effectiveness of mobile Learning in teaching and learning of English Language among young generation.

2.8. Review of related books

Kukulska-Hulme et al.(2005) "Mobile Learning: A hand book for educators and trainers" is written in the form of compilation compiled and edited by Agnes Kukulska Hulme and John Traxler. The research papers, projects and case studies were incorporated to provide more effective information regarding mobile technology and how it is helpful in education. It has 20 chapters and each chapter explains the type of technology involved, their applications and the multiple effects on pedagogical and social practice.

This book has been made to keep in mind lecturers, tutors, trainers, developers, managers and researchers working in universities and colleges and in commercial training. The case study papers elaborate the key concepts, benefits and various activities of mobile learning. Most of the educational institutions aware about potentials of computers and mobile communication devices but somehow these institutions fail to comprehend the importance of its implementation in Education. The research papers written in the form of case studies,

trials and pilot projects have tried to eliminate this ignorance of practical use of mobile device into education scenario. *Mobile Learning* provides useful, authoritative and comprehensive guidance for professionals in higher and further education, and trainers in the business sector wanting to find out about the opportunities offered by new technologies to deliver, support and enhance teaching, learning and training.

Agnieszka Palalas & Mohamed Ally (2016), the book entitled as “International Handbook of Mobile-Assisted Language Learning “represents the compilation of diverse authors’ ideas, observations, experience and style of writing. This is a practical resource book on Mobile assisted language learning.(MALL).This book is intended for second and foreign language teachers, academics, researchers, instructional designers and other professionals in Education and work place. It will also benefit schools administrators technology staff, directors of teaching and learning & learning centres and other stake holders interested in integrating mobile technologies to promote the development of second and foreign language skills among their students and employees. The handbook reflects diverse perspective on MALL from across the globe. The chapters are not only conceptual in nature thus providing the reader with the essential knowledge of MALL pedagogy, design, development and practice.

There are Twenty two chapters and these are divided three sections namely Part I the theoretical foundation of MALL. Part II Practical Application Part III Research from case study.

Mohamed Ally (2009), the book entitled as “M-Learning Transforming the Delivery of Education and Training” is collection of research papers written by eminent scholars of mobile-learning technology. It is edited by Mohamed Ally, Professor in Athabasca University, Canada. The book is very much informative for Faculty, researchers, teachers, instructors, and trainers. There are few experimental research papers through which the detail information is provided about mobile learning and how to design learning materials for delivery on mobile technology. One can use this book to become informed on current research and initiatives on mobile learning to learn best practices on mobile learning from other educators, trainers, and researchers.

This book consists of three parts. Part One deals with advances in mobile learning and sets the stage for the other parts of the book. This first part presents the current status of mobile learning, explores what mobile learning is, and presents a model that can be used to guide

the development and implementation of mobile learning. The first part also provides theoretical information on mobile learning, discusses the definition of mobile learning, and outlines some of the challenges faced when designing and implementing mobile learning. Part Two includes chapters that present the latest research on mobile learning so that readers can learn from current findings to guide the development of mobile learning materials and better implement future mobile learning initiatives. Part Three covers various examples of how mobile learning is used in different subjects and places around the world. As a result, readers will discover how to successfully design and implement mobile learning regardless of where they live. The chapters in the last part of the book also identify lessons learned which will be helpful for future implementation of mobile learning in educational and training settings.

Mohamed Ally (2014) the book entitled as “Increasing Access through Mobile Learning” explores profound information about mobile education. As possession of mobile device has been increasing tremendously in developing as well as developed countries, it is need of hours to make available materials that can be accessed using mobile devices, as a means of opening up opportunities for lifelong learning and professional development. The main objective of this book is to provide valuable insights on how to develop and implement successful mobile learning. The book is divided into three parts. Each chapter of this part has been written by one or more experts in mobile learning from around the world. The book is

Part I consists of seven chapters. It describes things to be kept in mind for designing mobile learning materials. Part II consists of four chapters. It discusses how mobile learning can be successfully implemented to maximise access to educational resources with minimum resources, and to maintain flexibility in the delivery process. Part III consists of six chapters. It provides examples of how mobile learning can be used in a variety of settings, including schools, higher education institutions, the workplace and the field, and a variety of contexts, from formal programmes to just-in-time learning.

Mobile device becomes inseparable part for all. The future young generation of learners are comfortable at using mobile technology and do so on a daily basis, they increasingly expect learning materials to be available through mobile technology. At the same time, the information explosion in many fields means that knowledge is changing constantly. In

light of these factors, this book would be blissful for researchers and innovative tutors as well as learners.

2.9 Conclusion

Review of literature provided the detail and very much inspiring information regarding the topics which are directly and indirectly relate the present research. As this is an innovative and new topic, print books are rarely available in libraries of universities. The researcher has to depend on mobile learning websites and online journals and educational website such as academia, slide share, Research Gate etc. After doing extensive review of literature published at state level, national level and international level, the researcher received a strong base for further procedure of the study. In short, Literature review is just like a mirror in which one can visualize his or her study by reviewing end number of related literature.

CHAPTER-3

LSRW Activities – A Conceptual Framework

3.1. Introduction

The two terms that are associated with mobile technologies are 'anytime' and 'anywhere' aspects. Such aspects in context to LSRW explore the dimensions of time and space. Moreover, it also develops the mindset for the user of mobile device that irrespective space, geographical area or movement in multiple community, learners can access resources at any time, create more 'free time' through effective time management or even utilizing spare time while travelling or spending leisure time.

In the contemporary educational environment, teaching and learning of English plays a vital role in satisfying the psychological needs of young learners. English, if taught through effective techniques, can change the whole basis of English language learning. It is required that this particular language should not be burdened with excessive work i.e. teaching rules of grammar without context, giving repetitive tasks without aim and mugging etc. Language is a speech which contains four basic skills viz Listening, Speaking, Reading and writing.

Recently the world of education has been craving to search latest technology in order to serve the learners efficiently. So that they could get the best way to grasp the language and the tutors could get most reasonable and easy available tools to teach language. Moreover, in the recent digital age, to teach English by simply introducing rules of grammar and putting stress on reading and writing is outdated. Learners require more innovative, effective and systematic tool to learn language. Learners, now-a-days, wish to learn language swiftly. It means that they urge the learning instantly. It is the need of the hour for teachers to adopt the innovative tools like CALL and Mall.

The introduction of Mall as a tool to language learning may bring drastic change in the teaching-learning process of English. Language is a social tool; it needs authentic and powerful medium to express. Learners would be contented if the use of words, sentences and context has practical applicability. Mobile –device has ability to provide all the needs of preset digital age born learners. Mobile device possesses the features like SMS, Video

recording, in built camera, photography, web surfing facility and abundant language software supported feature etc. Before relating the significance of such features in language teaching & learning process an acquaintance with listening, speaking, writing and reading skills of language is imperative.

Language teaching process is mainly based on above-mentioned four skills. There are many researches, workshops, national-international seminars, conferences have been done so far to define, to elaborate and to highlight the importance these basic skills in language teaching process. The influence of grammar translation method in 1960 has generated a broad belief that reading and writing are inter-woven to each other and 'literacy' is the term encompassing these two skills. Speaking and listening have been ignored. The speaking and listening skills were side-lined till the realization of globalization. In the machine-age and acceptance of English as a machine language it is a folly to infringe 'literacy' to merely reading & writing. 'Oracy' speaking & listening are equally important to communicate in global competitive business context.

3.1.1. Listening Skills:

It is a receptive skill people hear something to understand sounds of language and comprehend the same. A person will be reluctant to any language unless he/she can understand the language. It is the hardest skill to develop in multi-lingual world. Language varies from region to region resulting in diversified dialects and accents. Precisely, listening means comprehending oral information. In other words, listening skill allows understanding what someone is "talking about". To accentuate listening the speaker must be effective.

3.1.2 Speaking Skills:

It is a productive skill. It is the utterance of speech or use of uttered sounds for auditory communication. It is the exchange of spoken words. It is a communicative procedure of building up a sense that includes information, ideas and exchange of emotion. It is pretty tricky to master this skill because a person has to concentrate not only to phonetic & semantic structure i.e. grammar, sentence structures as well as on morphological structure. Speaking is the prolific skill in the oral mode. It is more intricate and confusing than it appears at first and covers more than just uttering words.

3.1.3 Reading Skills

Reading skill is a receptive skill. It is a complex cognitive process of decoding symbols intended towards decoding. It is a means of language acquisition for communication efficacy. Like all languages, it is a multifaceted communication amid the text and the reader which is understood by reader's previous knowledge, occurrence, thoughts and verbal communication, which is ethnically and collectively shaped. The reading is such a course of action which necessitates constant practice, improvement and alteration. The readers use a variety of reading process like bottom-up and top-down process. In bottom-up process reader understands each and every use of words, sentence, sentence structure as well as meaning of language while in top-down process reader just understands the meaning or central idea of language. In short reading skill requires a lot of concentration with skimming and scanning of text.

3.1.4 Writing Skill

Writing is a dynamic skill. It is the representation of language in a textual medium through the use of words and sentences. It is a complex process that allows writers to express thoughts and ideas vividly. Writing encourages radical expression and an urge to improve. Writers employ verbose and diction to contribute in enriching literature. Learners experience less pressure to comprehend and are more willing to experiment, explore, revise and edit.

From above attempts to describe language skills in general, it can be concluded that all the skills are interlinked to each other. In reading comprehension, paragraph is given it tends to develop reading skill but if it is spoken aloud it will develop speaking skill and sand is coincided with writing and listening as well. Appropriate activity is needed to cover up all the skills. For the development of proper, appropriate and specific activity, an authentic plus powerful tool is needed to meet the objective. The invention of CALL in this respect has proven its worth. But the question of ownership, high-price factor, lack of expertise in operations are some of the problem areas unlikely, CALL& MALL have no such limitations. Moreover it is as good as computer in terms of downloading, storing, interchanging information etc. Modern gizmo- geared world has made mobile device as crucial as wallet in the pocket. This makes MALL more popular with mob thereby benefiting learners as well as tutors replacing computers. Most importantly, it's user-

friendly and doesn't call for expertise. To sum up, it is safe remark to say that mobile device is a powerful medium for teaching and learning language activities.

3.2 Preparation for designing language activities on mobile phones:

Before designing activity for language –teaching –learning process, it is essential to check the following steps so that it can make the tutor comfortable and burden less.

- Ask the learners or yourself what you are trying to achieve. Are you focusing on speaking, listening, reading, and writing or on combination of four skills?
- Set the specific objective of teaching or learning and do activity accordingly
- Try to know how many learners have mobile-phones and which types of mobile-phones they possess.
- Having known the type of mobile-phone and if they have the latest model of mobile phone with web-site downloading then, take the help of internet and download free mobile software which will make the language activity easy and effective.
- Make the learners understand about importance of your activities and also make them aware about danger of misusing mobile-phones
- Check the battery of mobile whether it is charged or need to charge.
- If the learners haven't enough stock of resources, then share the mobile phones among groups. Ask them to work together in small groups.

3.2.1 LSRW Activities through mobile device:

In this critical study the possible ways to make mobile device as key resource tool for learners' language –learning process have been described in a lucid manner. As it is mentioned in chapter-2, mobile devices also possess variations in their types and nature. PDA, Palm-top, I-phone, I-pod, mini –computers are handy but are not affordable. So in the present study simple activities have been introduced which will work with most of the mobile phones and do not require special knowledge or additional software or hardware. The following activities will be helpful to learners both inside and outside the classroom.

Activity-1 Use of SMS feature to develop reading and writing skill

SMS (Short Message Service) is the most interesting and enjoyable activity for recent digital age born learners. By using SMS feature tutor can give following possible activities:

SMS-Quiz:

Skype software is free software which is easily available at Google Play Store as well as iOS apple store. Generally Skype is used for video calling purpose but there is one more option for preparing SMS quiz too. By using this SMS quiz option one can prepare SMS quiz question can send to learners. Learners can response in the form of answer by sending SMS to tutor. Tutor can also take feedback of learners through feedback menu option.

Vocabulary Game:

This is straightforward activity as SMS feature is involved in this activity. For implementation of this activity learners do not need to download any software or application because SMS feature is an inbuilt feature from Simple telephone to high featured possessed mobile device. Moreover in recent times many service providers provide free SMS facility to customers. Learner can exchange a few vocabulary items to each other and can expand their vocabulary power which is the pedestal requirement for developing all skills of language.

Story Linking Activity:

This is a very exciting and a little bit tough activity for learners. Tutor writes few sentences of 100 or 200 letters and provides background of some interesting story. This half written story is sent to learners using free SMS service. Each learner get a few sentences also add one or two sentences of their own. Then they forward these added sentences among their groups. Through this procedure, at the end an interesting and innovative story is prepared. Tutor can upload this story on their online classroom platform or can send through any other means such as Email, WhatsApp group, Instagram etc.

Activity-2 Camera Feature as an Effective Tool:

Learning skills can be easily developed by way of recording and capturing picture samples of the target language by mobile device. Learner can also create collage, images and unload it through data connection. These pictures can also be transferred through e-mails.

Captured text can further be utilized as stored memory. Learners may make various use like remembering Class-time table, important notice or exam and evaluation related matter.

Activity-3 Note taking Activity:

By using Note taking feature of high-end type of mobile like iphone or ipad learner can use note taking for various purpose like developing text on any particular topic. For creating this activity learner has to use an App in which he has to sign up for opening an account e.g. ever note once it has been signed up by learner they will send 60 Mb of data free per month. In the note one can add not only text but also audio and photo notes. One can access them via web browser or PC connection

Tutor can ask the learner to take notes on the target language which they read or hear inside as well as outside of the institute. Afterwards they can either present the notes to the class or send them to tutor as text message. Instead of giving a regular homework tutor can ask learners to hunt for specific language form. e.g. common nouns , all tenses , parts of speech etc. This kind of activity helps learner to expose themselves automatically to the target language. Ultimately it will serve to develop LSRW skill of language learning.

Activity-4 Video-recording Feature to improve speaking skill:

Generally audio-video recording in-built camera featured Mobile devices are useful for this activity. Learners can take interview of resource person and can learn the various strategies of speaking skill by observing pauses, hesitation marks, stress, intonation, speech variation and speaking style of good orators. In the same way they can record their own speech and can get feedback from tutors as well as friends to improve the speaking skill. Not only verbal but nonverbal skills can also be developed. The body language is noticed of the good orators and used to develop their personality as per their style of speaking. The tutor may ask them to view about the person and his personality along with his speech. It will be beneficial in both the ways and may take the test of language individually or used for group discussions too.

Activity-5: Voice-memo-recording feature to record live speech or live telecast and broadcast:

Voice-memo-recorder feature is common and an inbuilt feature which is possessed by just about all mobile devices. Learners can make recording of some sample of language from

live program or show and can present in the class or outside class among their group. This activity gives them a motivation to speak as well as listen to target language. Having recorded live broadcast on any English news broadcasting channel learner can learn the actual pronunciations by repeating them. Indirectly , the listening skills of learners is increased too.

Another way to use voice–memo-recorder feature is to record the live conversation of the group or to record tutors lecture which can be listened anywhere anytime. Whenever a person wishes to hear he can replay the same recording and by using it he can meet the desired results.

Another advantage of voice-memo-recorder feature is that the same recording could be used by many learners individually or collectively too. The most beneficial component of this voice memo recorder feature is that by listening to the recorded recording, learner does not fail to see any information and can learn the proper pronunciation too. Moreover, he can forward it to others through E-mail or Bluetooth.

Activity-6 Text-messaging as one of the features for developing tandem learner:

The world has become the global village. Today the technology has reduced the distance. It is not difficult for anybody to be at any place any time. But the communication is same problem as one cannot learn any language by themselves. But this feature of mobile has helped to bridge up the gap between the people. By using the tandem feature one can learn the language of the other country. One can sit in front of other person and learn his or her native language. Now he neither has to go to library to find the particular dictionary nor has he to search for tutor. This feature of mobile has helped the people to learn any language any time.

Activity-7 Blog – A Latest Mobile Device activity:

Any person can develop their own blog to share their feeling, experience, ideas place visited by them etc. tutor can ask learners to collect information from blogs and prepare their presentation or they may ask for information, extra information on particular topic. The tutor may give the task of commenting on each other’s work and can test their skills. With this teacher may give their feedback on the performance of student as an individual or in a group.

Activity-8 the World of a Person Increases through Networking:

The use of mobile devices helps a person to expand socially with the help of various social networking sites like Twitter, Face book, MySpace, LinkedIn, Flickr, Photo bucket, Picasa Fraudster, Orcut etc. Through all such sites they can exchange their ideas, views etc and can remain in touch with their friends and relatives. Moreover they can develop links too.

Activity-9 “Phlogging”- An Advanced Tool to Develop Speaking Skill:

The term ‘phlog’ is basically used for ‘rlog’ or ‘photo log’. It is updated version of ‘blog’. Most of blogs are written for general public on webpage or private website of writer and it can be read and viewed by anyone or by invited guests too. Along with this blog some people keep phlog too. This phlog demonstrates photos with attractive captions written below. In order to learn English effectively, some stimulation is needed. If the institute is not well equipped by language –lab, tutor can use this activity. The photos with captions attract learners to think and inspire them to speak too. Tutor can give task individually by asking them to describe photo in detail. After observing photo on their mobile screen the learner would start speaking into English. This is very much attractive learning tool for learners as it provide them an appropriate climate for language learning.

Activity-10 Mobile Device Memory for Distributing Listening Materials:

In compare to first generation mobile devices, recent mobile devices have more inbuilt storage facilities. Tutor can take advantage of this and can ask leaner to download music, audio recording or video recording too. Tutor can also ask them speak aloud some dialogues and to record them in their own voice. These recorded audio or video files can be transfer in the form of listening materials to learners..In addition to this YouTube, BBC language learning applications provide hundreds of existing podcasts for English language learners to which learners can subscribe. Audio-books are another source of listening materials. These can be downloaded in a variety of formats and can then be transferred and played back on any phone .This way tutor can inspire learners to listen to varieties of language learning materials.

Activity-11 Mobile Device Memory Tool can Develop Reading Skills:

Similar to the listening idea tutor could download reading materials for the learners. There are plentiful sites with free reading material to learners. Kindle, E-PDF etc endow with lots of books which are now published in mobile friendly formats. The learners can get benefit of this and can improve their reading skills.

Activity-12 Mobile Devices maximally used to Play Games:

The mobile device is generally used for playing many exciting games. This is the most attractive stimulation for most of the mobile users. Google play store as well as iOS apple store offer many 3D games too. Some games such as Scrabble and Crossword puzzles are made to improve vocabulary and writing skills. Tutor can suggest this positive use of mobile device and can ask the learners to download these games in their mobile devices. These games give them daily target such as learning new words, find errors from sentences etc. The scoring option in these games motivates learners to play more which indirectly help them to learn language.

Activity-13 Mobile Device Voice Memo Recorder, Notes and Calendar Features to keep Portfolio:

Language learning is limited within four walls or classroom. It is possible outside the classroom too. Learners require practicing fresh ideas and incorporated it into their language, which is their present phase of second language development as reflected by their control of grammar, syntax, and vocabulary. To fulfill this objective, mobile device features such as Memo Recorder, Notes and Calendar are the best useful resources. Tutors ask learners to keep record of their learning progress by using the Notes and Voice Memo Recorder features. In this way, our day today inputs replace the formal e-portfolio. However, it is important to clarify what learners anticipate in terms of the quantity and occurrence of reflection so that learners take the activity seriously. Tutor asks learners to document their use of the language outside the classroom and any problems they encounter, such as a communication breakdown or misunderstanding, as well as any successful communicative interactions.

Activity-14 Mobile Devices used to Check Student Class performance

Mobile devices can be used to check student comprehension and get feedback. The previous ideas focus on learning, but mobile devices can also help tutor in teaching. One way is to add an element of interactivity to classes through audience participation. Poll everywhere is a free program that allows the tutor to pose survey questions to learners. Learners respond by texting their responses and the results show up immediately in a PowerPoint presentation or on a website. This is very useful for checking learner's comprehension and to get their opinions. Tutor, for example, ask learners to choose from one of several options for the next classroom activity. This tool is particularly useful in larger classes where it is not easy to get feedback from all learners.

Activity-15 Mobile Device Memory for Research

The latest Android and I-Phone possess so much inbuilt memory or storage space that one can keep as many data as they want. Mobile device are small and light in compare to desktop. In spite of this, mobile devices are exceptional handy tools for researchers to collect socioeconomic, health, and other critical information from communities and worldwide. Tutor can ask the learners to store some important regarding GK, their textbook information or any type of documents which are needed anyplace or anytime. Tutor can also ask the learner to maintain the record of their daily activities and prepare a small project on the same.

Activity-16 Software supported mobile can be used for making flash card

In the recent advancement of technology many software are available in the market with all such in-built software. In case of those devices where such software are not in-built free downloadable software are very much helpful to make flash cards. Flash cards are generally utilized for developing reading skill among the learners. They can make best use of it by developing vocabulary list and can use it to furnish the language.

3.3 possible Problems and Solution using Mobile Devices in the Classroom:

Following are some potential problems associated with using Mobile devices in the classroom, along with some possible solutions and suggestions:

3.3.1 Issue of ownership of mobile devices while conducting activities

All learners in all classes now days own at least a mobile device but it is difficult to claim that all the learners have high and the latest featured mobile device. The activities and the tasks chosen by tutors may not be supported by learners' mobile devices. In this situation it is the duty of tutor to make inquiries whether the all the learners possess the supporting feature device or not. To overcome this problem tutor can allot group task or pair work to the learners which will solve the problem to an extent. Secondly, tutor can also ask them to complete the task at home.

3.3.2 Cost of mobile phones and wireless services.

Next hindrance in preparing mobile learning activities are cost of mobile phone cost of internet data plan and cost of SMS. Recently each and every service provider of every company offers many attractive schemes for internet data plan as well as calling and SMS package plans. Although it is not assumed that all the learners can afford such attractive plans too. To solve this issue, one can take the help of online group SMS services or can ask to share internet data to each other via portable hotspot option. The Wi- Fi facilities provided by institute are also one of the solutions of this issue. If the institute is ready to bare all the expenses regarding data plan and SMS services, it will be better option to engage learners in interesting and innovative activities of mobile device for learning language.

3.3.3 Noise and disruption in class.

Despite the stimulating prospective for mobile devices to raise opportunities for learning, the probability of allowing strident phones into a classroom may seem a bit intimidating, especially if one is not sound at or possess little experience using mobile phone as a teaching tool. It is duty of tutor to turn videos, music and movies shown mobile phone into such a way that these disruptive activities may become useful in learning language in some better situation. To use mobile phone in regular class is very much difficult task. It is troublemaking as it disturbs the silent class but tutor can eliminate this issue through some innovative activities. Tutors also need to take prior permission from authority and can solve this issue.

3.3.4 Privacy considerations

It is vital to mull over predicament of privacy before using mobile phones in class. If tutor teaches younger learners, he will have to get parents' approval to use mobile phones in class. Some learners may be unwilling to share private information with others, so it is important to make clear to them the purpose of preparing mobile activities. Tutor should frame some apparent policies and rules about when and how phones can be used so that learners do not use mobile phone in inappropriate ways.

3.3.5 Increased tutors workload

To teach learners by adopting scheduled time table is easy but to introduce some innovative techniques such as using mobile device in teaching –learning procedure is challenging. It requires extra work and extra efforts from tutor's side. Tutors need to response each and every learner personally. To resolve this issue, tutor can create online classroom such as Edmodo.

3.4 Conclusion

Above mentioned activities are possible activities through which one can use mobile phone in teaching-learning procedure of language. This study aims at showing effectiveness of mobile device in language leaning purpose. By describing each possible activities here researcher has tried verbally to prove the effectiveness of mobile device in language learning. Second purpose for keeping this chapter is to expand the future researcher's area of research. By referring all these possible activities language teacher may get inspire to use mobile devices in classroom situation.

Usage habits of mobile device and LSRW skills development through MALL among the engineering students

4.1 Introduction

Technological advancement in the field of education has dramatically changed the methods, techniques, approaches and way of communication system among human beings. In ancient era a pen and paper were used for most of the communication and exchange of information. But now, in the globalized era of incessant inventions of technology and its worldwide constant advancement has led our lives to communicate with advanced technological devices such as computers, laptops, palmtops, tablets and mobiles. This phenomenal change has brought lots of ease and effectiveness in communication. Almost all the devices are now regularly used by majority of participants in their routine communication. The use of devices in communication has recorded remarkable growth irrespective of age, education, gender or religion. The present study concentrates on the usage habits of mobile device and LSRW skills development through MALL among the engineering students of Gujarat.

4.2 Conceptualization:

Mobile Device:

A mobile device is a handheld tablet or other device that is made for portability, and is therefore both compact and lightweight. New data storage, processing and display technologies have allowed these small devices to do nearly anything that had not previously been done with larger personal computers.

Usage habits:

Usage habits are behavior expressed by the individual on a regular basis. In context to mobile device, it is recurrent and often unconscious patterns of behavior for the use of mobile device for communication and is acquired through frequent repetition.

LSRW skills

LSRW skills are the four basic motor skills of language learning, a set of four capabilities that allow an individual to comprehend and enhance the learning language for proper and effective interpersonal communication. The acronym LSRW includes Listening, Speaking, Reading and Writing.

MALL

MALL is the language learning that is assisted or enhanced through the use of a handheld mobile device.

4.3 Methodology

The present study aims to find out mobile phone usage habit of students of selected Engineering colleges of Gujarat and check the effectiveness of Mobile phone on various Language learning skills such as Reading, Listening and Writing and Speaking skills. Keeping in mind the nature of study and magnitude to test the effectiveness of language learning through mobile device, it is quite imperative for researcher to find out the usage habits of respondents. In order to find out the same, researcher has conducted survey of 512 engineering students as respondents who were selected randomly from 13 different engineering colleges of five zones of Gujarat Technological University. Researcher did this survey with the help of a structured questionnaire and collected the primary data. In order to achieve target of collecting such bulk of data, researcher has decided to fix minimum 40 respondents from 13 different engineering zone-wise colleges of Gujarat Technological University. This chapter focuses on to find out the mobile device usage habit of students of selected engineering colleges of Gujarat.

4.3.1 Objectives:

To find out the mobile device usage habit of students of selected engineering colleges of Gujarat.

4.3.2 Hypothesis

- H_{01} : The students of engineering are not considerably acquainted with Mobile assisted language learning.
- H_{11} : The students of engineering are considerably acquainted with Mobile assisted language learning.

4.4 Data analysis and findings

4.4.1 Usage Duration of Mobile Device:

Innovation in communication technology has undoubtedly brought ease in the life of everyone. Channelization of CALL into MALL is one of the evidences of technology aided innovation. This evolution in the past few decades has also changed teaching and learning methods. The productive use of various technological devices such as tablets, mobile phones, and other devices have made better connectivity among the human beings and other entities in exchanging ideas, information and services. Use of these devices has brought rapid momentum in the stage of youth where they are shaping their career. Findings of this research in the following tables provide the respondents usage habits in terms of per day total time spend by the respondents in using mobile device, usage pattern of mobile device, general purpose of using mobile device, educational purpose of using mobile device and specific purpose of using mobile device for learning language and developing LSWR skills.

Table 4.1 Usage duration of mobile device by the respondents

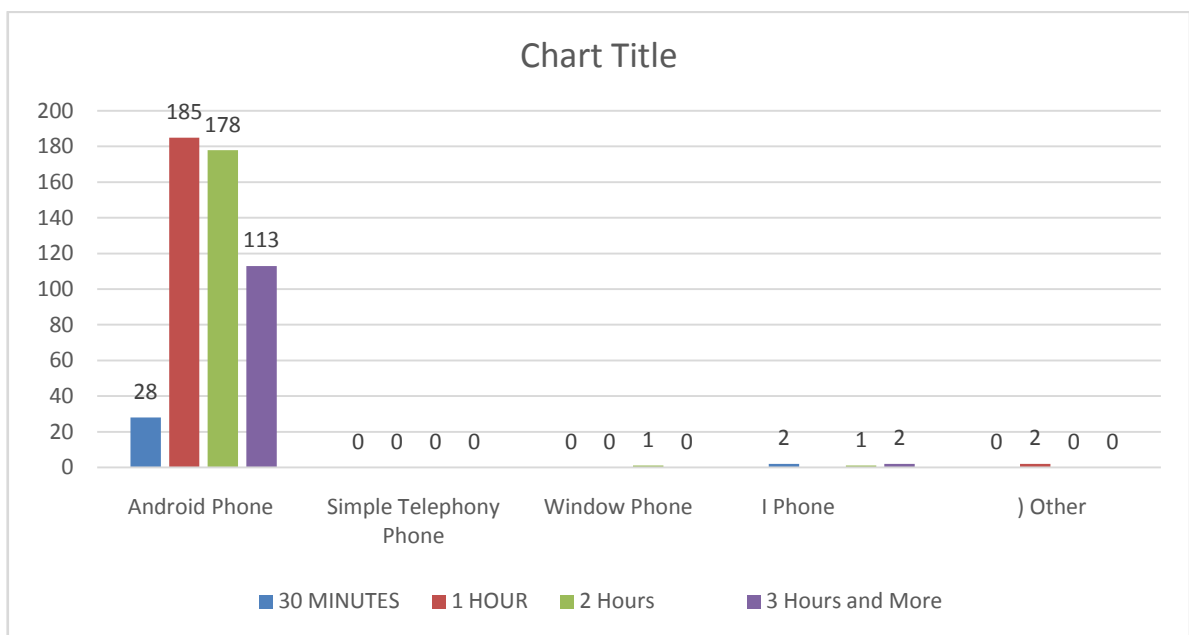
	30 MINUTES	1 HOUR	2 Hours	3 Hours and More	TOTAL
Android Phone	28	185	178	113	504
Simple Telephony Phone	0	0	0	0	0
Window Phone	0	0	1	0	1
I Phone	2		1	2	5
Other	0	2	0	0	2
Total number of respondents	30	187	180	115	512
Total Percentage	5.86%	36.52	35.16	22.46	100.00

Source: Computed Data

Table 4.1 reveals that the total number of respondents studied for the present research study is 512. It has been found from table 4.1 that out of total 512 respondents 5.86 % (30 respondents) are using mobile device for 30 minutes on an average per day. 36.52% (187 respondents) of total respondents are using mobile device for 1 hour on an average per day. 35.16% (180 respondents) are using mobile device for 2 hours on an average per day and 22.46% (115 respondents) are using mobile device for 3 and more than 3 hours on an average per day.

In order to find out the mobile device usage habit, one needs to understand an average time spend by respondents per day. The study has found from the analysis of data that 94% of the total respondents are spending time from 1 hour to 3 hours per day for using the mobile device.

Graph 4.1 Usage duration of mobile device by the respondents



Source: Computed Data

4.4.2 Usage Pattern of Mobile Device:

In order to investigate the quality usage, type and nature of usage and usage pattern of mobile device, it becomes quite important to understand that at what time respondent uses the mobile device. By analysing time period of using mobile device, researcher intended to depict the respondents' habit and quality of usage. Moreover, it also specifies the actual allotment of time to the specific activity by the respondents which leads to find out the

pattern of using the mobile device. Both the habit and usage pattern help the researcher to search respondents' strength and weakness to learn LSWR skills digitally.

Table 4.2 Usage Pattern of Mobile Device by the Respondents

Description	Total Respondents	Frequency of Users	% of Users	Frequency of not Users	% of not users	Total
Before College Hours	512	160	31.1	352	68.5	100%
After College Hours	512	262	51.0	250	48.6	100%
During College Hours	512	29	5.6	483	94.0	100%
During Leisure Time	512	214	41.6	298	58.0	100%
At Late night	512	174	33.9	338	65.8	100%
Other	512	7	1.4	505	98.2	100%

Source: Computed Data

Table 4.2 provides the details of usage pattern of mobile device by the respondents. Here respondents have given more than one answer for using the mobile device. It has been investigated from the frequency distribution that 31.1% of the total respondents are using their mobile device before the college hours whereas 51% of the respondents are found using mobile device after college hours. 5.6% of the total respondents use mobile during the college hours and 41.6% of the respondents use the mobile device in their leisure time. 33.9% of the respondents are using the mobile device at late night.

Table 4.2.1 Mean Value of favorable usage habit indicating variables

Description	Total Respondents	Frequency of Users	% of Users	Frequency of not Users	% of not users	Total
Before College Hours	512	160	31.1	352	68.5	100%
After College Hours	512	262	51.0	250	48.6	100%
During Leisure Time	512	214	41.6	298	58.0	100%
Other	512	7	1.4	505	98.2	100%
Mean Value	512	212	41.23	300	58.37	100%

Source: Computed Data

Table 4.2.1 shows the details of usage pattern of mobile device by the respondents. Here respondents have given more than one answer for using the mobile device. It has been investigated from the frequency distribution that 31.1% of the total respondents are using their mobile device before the college hours, 51% of the respondents are using mobile device after college hours and 41.6% of the respondents use the mobile device in their leisure time. Study investigates that majority respondents' uses mobile phone before college hours, after college hours or at leisure time. The mean value of above variables also reveals that more than 40 % respondents' uses mobile phone before college hours, after college hours or during leisure time.

Table 4.3 Multiple Usage Pattern of Mobile Device by the Respondents

Description	Multiple response	% of Multiple response	% of Cases
Before College Hours	160	18.9%	31.3%
After College Hours	262	31.0%	51.2%
During College Hours	29	3.4%	5.7%
During Leisure Time	214	25.3%	41.8%
At Late night	174	20.6%	34.0%
Other	7	0.8%	1.4%
Mean Value	160	18.9%	31.3%

Source: Computed Data

Table 4.3 shows the multiple responses given by respondents in using mobile device at various time. It is being investigated from table 4.3 that the pattern of using mobile by respondents are more after college hours, during leisure time and at late night i.e. 31% , 25.3% and 20.6% respectively.

4.4.3 Purpose of Using Mobile Device:

Purpose of using mobile brings clarity as to how much time is generally allotted by respondent for learning LSRW activity. With a view to find out the purposes of using

mobile device by the selected respondents, researcher has taken in to consideration various possible alternatives where there can be a use of mobile device from 1 hour 5 hours per day.

Table 4.4 Mobile Device Usage Purposes Frequency of the Respondents

Description	Total Respondents	Frequency of Users	% of Users	Frequency of not Users	% of not users	Total
Phone Calls	512	509	99.4	3	0.6	100%
Surfing Internet	512	213	41.6	299	58.4	100%
YouTube	512	277	54.1	235	45.9	100%
Social Media	512	280	54.7	232	45.3	100%
WhatsApp	512	327	64	185	36	100%
Email	512	123	24	389	76	100%
Education	512	242	47.3	270	52.7	100%
Noting down notes, memo& calendar features	512	410	80.1	102	19.9	100%
Access of Vocabulary through mobile dictionary	512	50	9.8	462	90.2	100%
Clicking Pictures	512	195	38.1	317	61.9	100%
Other	512	12	2.3	500	97.7	100%

Source: Computed Data

During the survey, respondents were given more than one option in questionnaire to indicate their purpose of using mobile device. As a result, it has been found from table 4.4 that 99.4% (509 respondents) use their mobile for routine phone calls where as 80.1% of the respondents use their mobile device for noting down notes, memos and calendar. 41.6% of the respondents use mobile device for surfing internet where as 54.1% and 54.7 % of the respondents spends there time for accessing YouTube and Social media respectively. The

3rd highest consumption of mobile device among the respondents has been found for chatting on WhatsApp.

Respondents have shown less usage of their mobile device i.e. 24% for Emails. 64 % of the respondents use their mobile device for education purpose and 38.1% of the respondents use their mobile for clicking pictures. Such analysis indicates that majority respondents uses their mobile for routine phone calls as well as they also allot the adequate amount of time for the purpose of developing educational ability among them.

Table 4.5 Multiple Usage Purposes frequency of Mobile Device

Description	No of respondents	Percent	% of Cases
Phone Calls	509	19.3%	99.6%
Surfing Internet	213	8.1%	41.7%
YouTube	277	10.5%	54.2%
Social Media	280	10.6%	54.8%
WhatsApp	327	12.4%	64.0%
Email	242	9.2%	47.4%
Education	410	15.5%	80.2%
Noting down notes, memo & calendar features	50	1.9%	9.8%
Access of Vocabulary through mobile dictionary	123	4.7%	24.1%
Clicking Pictures	195	7.4%	38.2%
Other	12	.5%	2.3%
	2638	100.0%	

Source: Computed Data

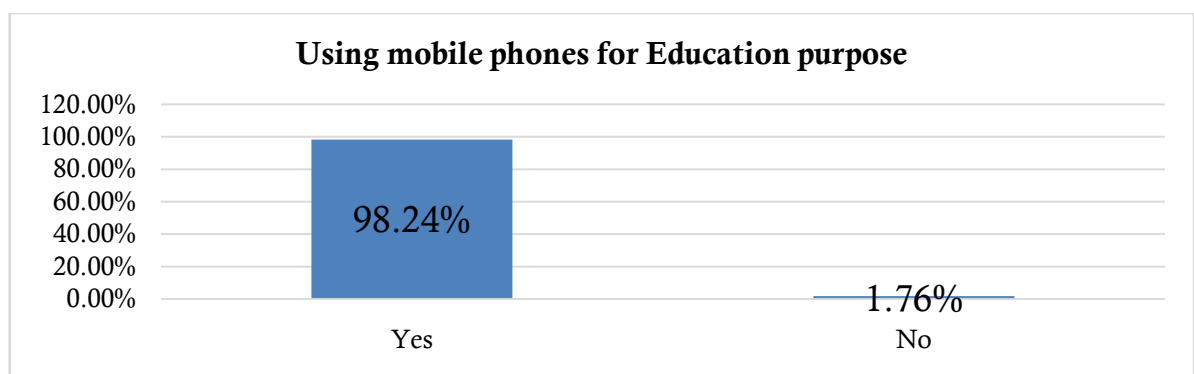
Table 4.5 represents the multiple usage purposes of mobile device by the respondents. This analysis signifies that the highest usage purpose i.e. 99.6% of mobile device is for routine phone calls. The second highest usage done by the respondents is for education i.e. 80% and third highest usage purpose i.e. 64% of mobile device noted down for chatting through WhatsApp. Whereas, purposes of mobile usage by respondents for social media and YouTube has been recorded at 54.8% and 54.2% respectively. Purpose of using mobile for clicking pictures has been shown by 38.2% of respondents and 24.1% of the respondents indicated their purpose of using mobile to access vocabulary and dictionary.

4.4.4 Education Purpose of Using Mobile Device:

Education purpose leads to understand as to how much total time spend through mobile device for learning LSRW activities by respondents. Many activities can be done by respondents for education purpose such as, English language learning which brings proficiency in communication, soft skills development enables learners to become effective presenter, developing listening skills leads to develop concentration, developing reading skills grow the habit to explore new knowledge , developing speaking skills makes learner to communicate in a compact manner, developing presentation skills which builds the confidence in learners, exploring research enables learners to develop logical thinking and critical analysis, watching and listening subject related lectures makes learners to grow conceptually and fundamentally strong, preparation for competitive examination which develops competitive spirits among the learners, exploring career selection enables learners to get update with various career opportunities and exploring e-libraries which grow the good habit of reading among the learners or playing video games which develops the high concentration in learners.

Use of mobile device for education purpose makes learners to be digital and leads them to become equipped with the latest application of technology in their day to day learning process. Such approach of digitalization helps the learners in long run for exploring various opportunities taking place locally and globally.

Graph4.2 Usage of Mobile device for Education Purpose by the Respondent



Source: Computed Data

It has been observed from the Graph 4.2 that 98.24% of the total respondents use their mobile for education purpose. Table 4.5 has depicted that in case of multiple purposes, 80% of the total respondents are using their mobile for education purpose.

Table 4.6 Education Purpose Usages Frequency of Mobile device

Description	Total Respondents	Frequency of Users	% of Users	Frequency of not Users	% of not users	Total
Soft Skills development	512	256	50.0	256	50.0	100%
For developing listening skills	512	118	23.0	394	77.0	100%
For Developing reading Skills	512	290	56.6	222	43.4	100%
For Developing Speaking Skills	512	289	56.4	223	43.6	100%
For developing presentation Skills	512	291	56.8	221	43.2	100%
Research	512	66	12.9	446	87.1	100%
Subject related lectures	512	137	26.8	375	73.2	100%
Preparing for Competitive Examinations	512	205	40.0	307	60.0	100%
For Career selection	512	77	15.0	435	85.0	100%
Exploring E-libraries	512	112	21.9	400	78.1	100%
For playing Video games	512	57	11.1	455	89%	100%
All		113	22.1	399	78%	100%

Source: Computed Data

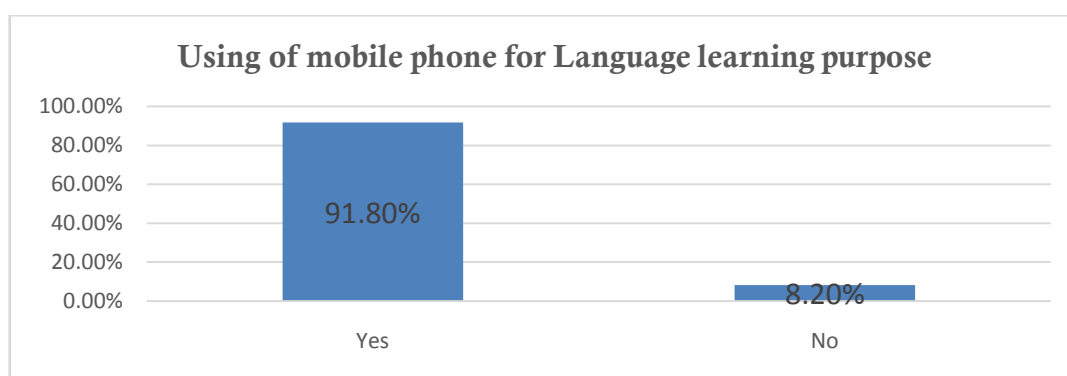
Table 4.6 presents the multiple education usage purpose of mobile device by the respondents. The notable findings recorded from the analysis are that 50% of the

respondents use their mobile for developing soft skills, where as 56.6% and 56.4% of the respondents uses their mobile for developing reading and speaking skills respectively and 23% of the respondents use their mobile device for developing listening skills.40% of the total respondents use their mobile for the purpose of preparing for competitive examination whereas, 26.8% of the respondents use their mobile device for accessing subject related lectures. For the purpose of exploring career selection, exploring e-libraries and playing video games 15%, 21.9% and 11.1% respondents use their mobile device respectively.

4.4.5 Language Learning Purpose of Using Mobile Device:

Proficiency in language leads a person to develop effective communication skills. It develops the ability of a person to communicate with others in a compact manner. Learning of English language has a great impact ensuring the focus on LSRW skills which provides very important platform to the learners in communicating his/her own language well. Ideally, listening and speaking has taken a prominence over reading and writing when any language is being learnt. Benefits of acquiring language expertise naturally and phenomenally enhance the opportunity to listen and speak in the target language. The purpose of using mobile device in learning language brings digital aptitude and thereby develops speed and more concentration in learners. The said study has been confronted towards finding out language learning approach of the respondents for developing LSWR activities with a focal point through the purpose of learning language by mobile device.

Graph 4.3 Usage of Mobile device for language learning Purpose



Source: Computed Data

It has been depicted from the Graph 4.3 that 91.08 % of the respondents use their mobile for the purpose of learning language. The role of language learning impacts greatly on developing communication skills. The analysis of data further concentrates on how the

respondents generally use their mobile on improving language grammar, enhancing speaking ability, building listening ability, increasing reading ability and expanding the writing ability.

Table 4.7 Language Learning Purpose Usages Frequency of Mobile device

Description	Total Respondents	Frequency of Users	% of Users	Frequency of not Users	% of non users	Total
Grammar	512	35	6.8	477	93.2	100%
Speaking	512	200	39.0	312	61.0	100%
Listening	512	294	57.3	218	42.7	100%
Reading	512	195	38.0	317	62.0	100%
Writing	512	340	66.3	172	33.7	100%
Any other	512	270	52.6	242	47.4	100%

Source: Computed Data

Table 4.7 depicts the Learning language purpose usages frequency of mobile device by the respondents. As the purpose of language learning leads to develop various communicating skills of the learner. It has been observed from table 4.7 that 6.8 % of the total respondents have a purpose of using their mobile device to test and learn the ability of improving language grammar whereas, in case of learning LSRW skills, the analysis shows that the highest number of respondents i.e 66.3% use their mobile device for the purpose of developing writing skills and second highest respondents i.e. 57.3% of the total respondents use their mobile for the purpose of improving listening skills. 39% of the respondents opined that they use their mobile for growing the speaking skills and 38% of the respondents agreed that they use their mobile device for developing reading skills.

Table 4.8 Frequency of Solving and resolving issues related to the Language learning through the use Mobile device

Description	Total Respondents	Frequency of Users	% of Users	Frequency of not users	% of non Users	Total
Google	512	466	91%	46	8.98	100%
Through direct website	512	86	16.8	426	86.1	100%
Through book	512	71	13.9	441	16.8	100%
Any other	512	66	12.9	446	87.1	100%

Source: Computed Data

It has been found from table 4.8 that 91% of the total respondents solve their problems and issue related Grammar and Vocabulary through Google search engine. 16.8% of the total respondents solve their problems and issue related Grammar and Vocabulary through direct website. 13.9% of the total respondents opined that they are solving their vocabulary and grammar related issues by referring various subject related text books and reference books. Such analysis depicts the regular and systematic use of mobile device by the respondents for the purpose of learning language.

4.5 Conclusion:

Mobile device has become the most essential medium of communication for all human being. It has almost affected the society's ease of access, safety, and synchronization of business and social activities. Over a period of time now, it has been a part of a culture of the whole world. School system has a bigger responsibility of transforming little and young students in good citizens. School and college education is the only place which develops the skills in students which connect them to employment with large responsibilities in socialization. There is the conflicting priority of young people, parents, and teachers in relation to the mobile phone device, with teachers more concerned about issues such as discipline in the classroom and parents worried about means of contacting their children at every point in time (Haruna et al, 2016).

A basic mobile phone is regarded as a pocket-sized device which has telecommunication capabilities that stores contact information, possesses text messaging features and keeps track of appointments as well as setting reminders. In this regard it has been found out with

the help of extensive review of literature that research on the influence of mobile phone in our schools and colleges today has not been given much attention.

Innovation in communication technology has undoubtedly brought ease in the life of everyone. Channelization of CALL into MALL is one of the evidences of technology aided innovation. This evolution in the past few decades has also changed teaching and learning methods. The productive use of various technological devices such as tablets, mobile phones, and other devices have made better connectivity among the human beings and other entities in exchanging ideas, information and services. Use of these devices has brought rapid momentum in the stage of youth where they are shaping their career. Hence, the present study concentrates on the use and effectiveness of mobile device in learning language. The major findings from this chapter titled “Usage habits of mobile device and LSRW skills development through MALL among the engineering students” are as under.

This chapter provides findings on respondents’ usage habits in terms of per day total time spend by the respondents in using mobile device, usage pattern of mobile device, general purpose of using, educational purpose of using mobile device and specific purpose of learning language and developing LSWR skills.

It has been found with the help of table 4.1 that the total number of respondents studied for the present research study is 512 from which 5.86 % of the total respondents are using mobile device for 30 minutes on an average per day whereas, 36.52% of total the respondents are using mobile device for 1 hour on an average per day. 35.16% of the total respondents are using mobile device for 2 hours on an average per day and 22.46% of the total respondents are using mobile device for more than 3 hours on an average per day. It is important to find out the mobile device usage habit, because one needs to understand an average time spend by respondents per day in context to develop the LSWR skills. The study has found from the analysis of data that 94% of the total respondents are spending time from 1 hour to 3 hours per day for using the mobile device.

In order to investigate the quality usage, type and nature of usage and usage pattern of mobile device, it becomes quite important to understand that in which time respondent is using the mobile. This is because the time period of using mobile device depicts the respondents’ habit and usage quality. Table 4.2 provides the details of usage pattern of mobile device by the respondents. Here respondents have given more than one answer for using the mobile device. It has been investigated from the frequency distribution that

31.1% of the total respondents are using their mobile device before the college hours whereas 51% of the respondents are found using mobile device after college hours. 5.6% of the total respondents use mobile during the college hours and 41.6% of the respondents use the mobile device in their leisure time. 33.9% of the respondents are using the mobile device at late night. The mean value also reveals that more than 40 % respondents' uses mobile phone before college hours, after college hours or during leisure time.

Table 4.3 shows the multiple responses given by respondents in using mobile device at various time. It is being investigated from table 4.3 that the pattern of using mobile by respondents are more after college hours, during leisure time and at late night i.e. 31% , 25.3% and 20.6% respectively. Purpose of using mobile brings clarity as to how much time is generally allotted by respondent for learning LSRW activity. With a view to find out the purposes of using mobile device by the selected respondents, researcher has taken in to consideration various possible alternatives where there can be a use of mobile device from 1 hour 5 hours per day.

During the survey, respondents were given more than one option in questionnaire to indicate their purpose of using mobile device. As a result, it has been found from table 4.1 that 99.4% (509 respondents) use their mobile for routine phone calls where as 80.1% of the respondents use their mobile device for noting down notes, memos and calendar. 41.6% of the respondents use mobile device for surfing internet where as 54.1% and 54.7 % of the respondents spends there time for accessing YouTube and Social media respectively. The 3rd highest consumption of mobile device among the respondents has been found for chatting on WhatsApp.

Table 4.5 portrays that respondents have shown less usage of their mobile device i.e. 24% for Emails. 64 % of the respondents use their mobile device for education purpose and 38.1% of the respondents use their mobile for clicking pictures. Such analysis indicates that highest number of respondents uses their mobile for routine phone calls as well as they also allot the adequate amount of time for the purpose of developing educational ability among them. Table 4.5 represents the multiple usage purposes of mobile device by the respondents. Analysis of signifies that the highest usage purpose i.e. 99.6% of mobile device is for routine phone calls respondents. The second highest usage done by the respondents is for education i.e. 80% and third highest usage purpose i.e. 64% of mobile device noted down for chatting through WhatsApp. Whereas, purposes of mobile usage by

respondents for social media and YouTube has been recorded at 54.8% and 54.2% respectively. Purpose of using mobile for clicking pictures has been shown by 38.2% of respondents and 24.1% of the respondents indicated their purpose of using mobile to access vocabulary and dictionary.

Education purpose leads to understand as to how much total time spend through mobile device for learning LSRW activities by respondents. Many activities can be done by respondents for education purpose such as, English language learning which brings proficiency in communication, soft skills development enables learners to become effective presenter, developing listening skills leads to develop concentration, developing reading skills grow the habit to explore new knowledge , developing speaking skills makes learner to communicate in a compact manner, developing presentation skills which builds the confidence in learners, exploring research enables learners to develop logical thinking and critical analysis, watching and listening subject related lectures makes learners to grow conceptually and fundamentally strong, preparation for competitive examination which develops competitive spirits among the learners, exploring career selection enables learners to get update with various career opportunities and exploring e-libraries which grow the good habit of reading among the learners or playing video games which develops the high concentration in learners.

Use of mobile device for education purpose makes learners to be digital and leads them to become equipped with the latest application of technology in their day to day learning process. Such approach of digitalization helps the learners in long run for exploring various opportunities taking place locally and globally.

It has been observed from the Graph 4.2 that 98.24% of the total respondents use their mobile for education purpose. Table 4.5 has depicted that in case of multiple purposes, 80% of the total respondents are using their mobile for education purpose. Table 4.6 portrays the multiple education usage purpose of mobile device by the respondents. The notable findings recorded from the analysis are that 50% of the respondents use their mobile for developing soft skills, where as 56.6% and 56.4% of the respondents uses their mobile for developing reading and speaking skills respectively and 23% of the respondents use their mobile device for developing listening skills. 40% of the total respondents use their mobile for the purpose of preparing for competitive examination whereas, 26.8% of the respondents use their mobile device for accessing subject related lectures. For the

purpose of exploring career selection, exploring e-libraries and playing video games 15%, 21.9% and 11.1% respondents use their mobile device respectively.

Proficiency in language leads a person to develop effective communication skills. It develops the ability of a person to communicate with others in a compact manner. Learning of English language has a great impact ensuring the focus on LSRW skills which provides very important platform to the learners in communicating his/her own language well. Ideally, listening and speaking has taken a prominence over reading and writing when any language is being learnt. Benefits of acquiring language expertise naturally and phenomenally enhance the opportunity to listen and speak in the target language. The purpose of using mobile device in learning language brings digital aptitude and thereby develops speed and more concentration in learners. The said study has been confronted towards finding out language learning approach of the respondents for developing LSWR activities with a focal point through the purpose of learning language by mobile device.

It has been clear from the Graph 4.3 that 91.08 % of the respondents use their mobile for the purpose of learning language. The role of language learning impacts greatly on developing communication skills. The analysis of data further concentrates on how the respondents generally use their mobile on improving language grammar, enhancing speaking ability, building listening ability, increasing reading ability and expanding the writing ability.

Table 4.7 depicts the Learning language purpose usages frequency of mobile device by the respondents. As the purpose of language learning leads to develop various communicating skills of the learner. It has been observed from table 4.7 that 6.8 % of the total respondents have a purpose of using their mobile device to test and learn the ability of improving language grammar whereas, in case of learning LSRW skills, the analysis shows that the highest number of respondents i.e 66.3% use their mobile device for the purpose of developing writing skills and second highest respondents i.e. 57.3% of the total respondents use their mobile for the purpose of improving listening skills. 39% of the respondents opined that they use their mobile for growing the speaking skills and 38% of the respondents agreed that they use their mobile device for developing reading skills.

It has been found from table 4.8 that 16.8% of the total respondents solve their problems and issues related to access of vocabulary through direct website. 13.9% of the total respondents opined that they are solving their vocabulary and grammar related issues by referring various subject related text books and reference books.

CHAPTER-5

Evaluating the effectiveness of mobile device on developing LSRW Skills of Selected Engineering Colleges of Gujarat

5.1 Introduction

Mobile devices have become a learning tool in the recent era with a great potential in both classrooms and outdoor learning. It assists significantly in learning different languages and subjects. Various qualitative analyses of the use of mobile device demonstrate the considerable collision between the learning through mobile device and learning without mobile device. Educators have started mobile device as an educational tool for teaching language to the learners and the learners have also accepted this tool for learning the language. Mobile device motivates the learners in developing the individual learning needs, not only those arising from greater mobility and frequent travel but also collaborates learning opportunities. Interactivity in the classroom is reported to promote a more active learning environment, facilitate the building of learning communities, provide greater feedback for lecturers, and help student motivation. Even though, there is still lack of awareness among the users to understand as to how mobile device becomes helpful in learning language and brings speed with accuracy. Keeping these factors in mind, researcher did the detail analysis of each questions of Questionnaire. In the fourth chapter mobile user's habits and mobile device using patterns were analyzed in detail. Chapter 4 covered 1 to 10 questions of Questionnaire. Remaining 15 questions are the core questions through which researcher tried to fulfill the objectives of effectiveness of mobile device in learning language.

In order to derive more clarity, the whole chapter is further divided into four sections. Section 1 analyzes general and specific purpose of respondents while using mobile device. Section 2 provides the detail analysis to find out mobile usage and its effectiveness in developing LSRW skills of 512 respondents. Section 3 explains the agreement or disagreement of respondents where various features of mobile device help directly and

indirectly in developing LSRW skills of respondents. Section 4 gives detail information about rating of mobile in developing LSRW skills.

5.2 Conceptualization:

5.2.1 Effectiveness:

It is termed as the degree to which objectives are achieved and the extent to which targeted problems are solved.

5.2.2 Listening Skills:

Listening is the ability to accurately receive and interpret messages in the communication process.

5.2.3 Speaking Skills:

Speaking is an act of making vocal sounds that gives the ability to communicate effectively.

5.2.4 Reading Skills:

Reading skill refers to the ability to understand written text. It is the complex cognitive process of decoding symbols to derive meaning and form of language processing.

5.2.5 Writing Skills:

Writing skills are those abilities where ideas and information are presented in a nice written format for readers.

5.3 Data collection and Research methodology

This is a survey based research. Keeping in mind the nature and type the study, the primary data have been collected through 512 mobile users' respondents with the help of structured questionnaire. The construction of Questionnaire identifies and determines various language learning activities done by 512 Mobile Users' respondents, sampling design is planned out by adopting survey method in 13 randomly selected Engineering colleges of Gujarat.

The step-wise research process for collecting primary data through the structured questionnaire in the present study is described as under:

5.3.1 Sampling design:

The samples have been taken from each zone such as Ahmadabad, Vidyanagar, Surat, Rajkot and Gandhinagar.13 (Fourteen) randomly selected Engineering colleges affiliated to Gujarat technological University (GTU) have been considered for selecting samples.

5.3.2 Sample Unit:

The sample unit for the said study is identified as ‘Android mobile user students of engineering colleges’.

5.3.3 Sampling technique:

Random sampling method is adopted with a view to obtain balanced and systematic information from respondents.

5.3.4 Sample Size:

Keeping in mind the total population of Android Mobile users, 512 of engineering students are considered from engineering colleges affiliated to GTU. The colleges are selected from five different zones of Gujarat. Different five zones like:

Gandhinagar Zone includes 3(three) colleges such as 1) Shankersinh Vaghela Babu Institute of Technology, Vasan, Gandhinagar 2) Gujarat Power Engineering and Research institute, Mevad, Mahesana. 3) Government Engineering College, Modasa.

Ahmedabad Zone includes 2(two) colleges such as 1) L. J. Institute of engineering and technology, Ahmedabad. 2) SAL Institute of Technology and Engineering Research, Ahmedabad

Rajkot Zone includes 3(three) colleges such as 1) Marwadi Education Foundation, Engineering discipline, Rajkot 2) OM Engineering College, Junagadh 3) Noble engineering college and

Vidyanagar Zone includes 4(four) colleges such as 1) Birla Vishwakarma Mahavidyalaya, Vidyanagar 2) Neo Institute of Technology, Baroda 3) G H Patel Engineering Vidyanagar 4) GCET

Surat Zone includes 2(two) colleges such as 1) Government Engineering College, Valsad 2) Dr. S.& S. S. Gandhi Government Engineering College, Surat

5.3.5 Statistical Tools

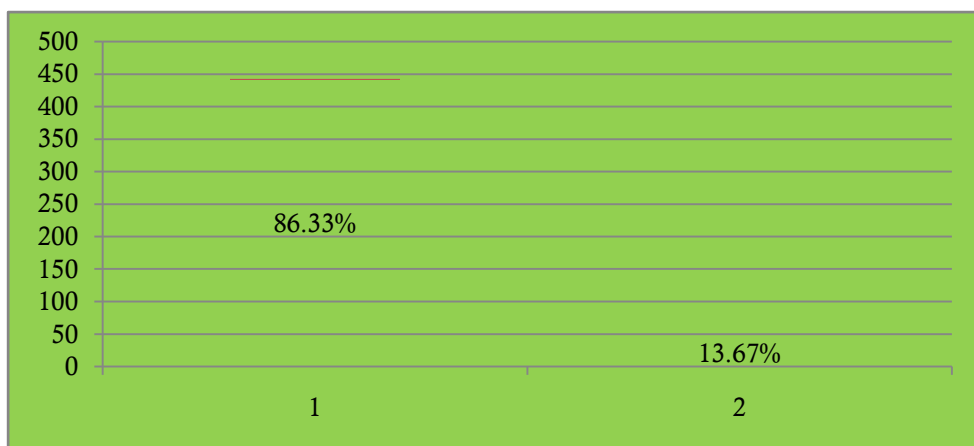
In order to achieve the objectives of the study, researcher has applied descriptive statistic i.e. mean, mode, median and frequency distribution. In inferential statistics tools such as frequency distribution, cross tabulation, Chi-square and factor analysis were applied.

5.4 Data analysis and research findings

Section-I

Section -1 in data analysis and research findings provides the preliminary information analysis of the 512 respondents studied for this research study. This section majorly covers number of mobile application downloaded by users, number of language learning applications downloaded by users, Duration of Application downloaded by the respondents, Languages Preferred for Exchanging Text by the respondents, General purpose of using mobile device, specific purposes like education purpose, language learning purpose and LSRW skills development purpose, learning of LSRW skills through downloading various application, duration of learning through applications and the language preferred by the respondents while using the mobile device for the purpose of learning.

Graph 5.1 English language learning applications downloaded by the respondents



Source: Computed data

Graph 5.1 depicts the no of respondents learning language and developing their LSWR skills through downloading various English language learning applications. It has been found out from the graph 5.1 that 86.33 % of the total respondents have downloaded various applications related to language learning and developed their skills.

Table 5.1 English Language learning Applications Downloaded by Respondents in their Mobile Device

No of Applications	Total no of respondents	No. of Respondents Downloaded application	Percentage
1	512	223	50%
2	512	169	38%
3	512	32	7%
4 And more	512	18	5%
Total		442	100.00%

Source: Computed data

Table 5.1 indicates the no of applications downloaded by the respondents in their mobile device for learning English language. It has been found from the table 5.4 that 50% of the total respondents have downloaded at least 1 (One) application related to English language whereas, 38% of the total respondents have downloaded 2 (Two) applications related to English language. 7% of the total respondents opined that they have downloaded 3 (Three) application and 5% of the total respondents have downloaded 4(Four) or more than 4(Four) applications for learning English language. Such aptitude of the respondents signifies the good awareness among the respondents for learning the English language through their mobile device.

Table 5.2 Duration of Application downloaded by the respondents

No of Applications	Total no of respondents	No of Respondents Downloaded application	Percentage
3 Months	512	117	22.9%
6 Months	512	134	26.02%
1 Year	512	209	40.08%
2 Years and more	512	52	10.16%
Total		512	100.00%

Source: Computed data

It has been observed from table 5.2 that 22.09% of the total respondents are learning the English language through applications since 3 months.26.17% of the total respondents are learning the English language through applications since 6 months whereas 40.82% of the total respondents are used to learn the English language since 1 year and 10.16% of the total respondents are using applications for learning language for more than 2 years. Such

analysis indicates very good digital acquaintance of respondents in learning the language and they are making the optimal use of mobile device.

Table 5.3 Languages Preferred for Exchanging Text by the respondents

Language	Total No of Respondents	No of Respondents	%
English	512	343	67%
Gujarati	512	45	9%
Hindi	512	6	1%
Bilingual	512	114	22%
Any other	512	4	1%
Total	512	512	100%

Source: Computed Data

From above table no.5.6 ,it has been observed that 67% (343) of respondents prefer English as a language for exchanging text through mobile device. 9% (45) of respondents prefer Gujarati as a language for exchanging text through mobile device. 1% (6) of respondents prefers Hindi as a language for exchanging text through mobile device. 22% (114) of respondents prefer Bilingual language for exchanging text through mobile device. 1% (4) of respondents prefers English as a language for exchanging text through mobile device.

From above table the result indicates that most of the respondents use English as a medium for exchanging text on mobile device. Use of Gujarati and Hindi is very less but it is also surprising that some respondents also use Bilingual language as a medium for exchanging text on mobile device.

Section-II

Section-II of this Chapter provides the detail analysis to find out the usage effectiveness of mobile device on developing LSRW skills of 512 respondents. In order to draw the inferences (A) Cross Tabulation and (B) Chi-square analysis has been carried with the help of variables such as number of respondents using mobile device for the purpose of learning language and as a result number of respondents have learned/developed LSRW skills.

5.5 Examining the effectiveness of mobile device on developing the Listening Skills

(A) Analysis and findings with the help of Cross Tabulation

Listening is an independent skill and is not dependent on other skill like speaking, reading and writing. Because in remaining, there is a control over the language that is used. In listening the learner has to extract meaning from whatever language is directed to him/her. Listening demands active involvement from the listeners in order to reconstruct the message that the speaker intends. Here, in the said study researcher has attempted to examine the use of mobile device on developing the listening skills.

Objective:

To examine the effectiveness of mobile device on developing Reading Skills for selected Engineering colleges of Gujarat.

Hypothesis:

H₀₂ : There is no significant impact of effectiveness of mobile device on developing Reading Skills of selected Engineering colleges of Gujarat

H₁₂ : There is significant impact of effectiveness of mobile device on developing Reading Skills of selected Engineering colleges of Gujarat

Table 5.4 Cross Tabulation for examining the Effectiveness of learning Listening skills

	No. of respondents who use mobile device For learning Language	No. of respondents who do not use mobile device For learning Language	Total
Learned Listening Skills	338	132	470
Not Learned Listening Skills	10	32	42
Total	348	164	512

Source: Computed Data

Table 5.7 examines the effectiveness of learning listening skills of the 512 respondents. For the said purpose, the analysis of data has been carried out through cross tabulation among the numbers of respondents using mobile device for the purposes of learning and as a result, the number of respondents learned listening skills. The analysis depicts that out of total 512 respondents, 338 respondents have regularly used mobile device and learned the listening skills effectively. Whereas, 132 respondents have been found not using mobile device regularly and as a result their listening skill has not been improved. It has been

further studied from the analysis that there are 10 respondents who have used mobile device but could not improve their listening skills and 32 respondents found not using mobile device and as a result their listening skills could not be improved. Hence, such analysis proves that 66% of the total respondents could bring the effectiveness in developing their listening skills due to the regular use of mobile device.

(B) Analysis and findings with the help of Chi -square

Steps in calculating chi-square test for contingency tables

1. Start with the observed frequency table (fo) and
2. Calculate marginal sums (row sums, column sums, etc.)
3. Calculate marginal proportions
4. Multiply marginal proportions together to get estimated cell proportions
5. Multiply result in (4) by total number. These are expected frequencies (fe)
6. Calculate for each cell of the table the chi-square statistic

$$\text{chi-square} = (fo - fe)^2 / fe$$
7. Sum up all the of individual chi-squares to yield the chi-square for the table.
8. The degrees of freedom are number of rows (nr) minus 1 times the number of columns (nc) minus 1 ,Degrees of freedom = (nr-1) x (nc-1)

Chi-Squared Formula

χ^2	$= \sum \frac{(\text{Observed frequencies} - \text{Expected frequencies})^2}{\text{Expected frequencies}}$ $= \sum \frac{(F_o - F_e)^2}{F_e}$
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Fe = Expected frequency = Average of total observations

Fo = Observed frequency

Chi-square test is designed to analyze categorical data. That means that the data has been counted and divided into categories. It will not work with parametric or continuous data. It

is a statistical procedure used by researcher to examine the *relationship between dependent and independent variable*. Here, number of respondents used mobile device for learning the language and as a result, the listening skills have been enhanced are two categorical variables of the same population.

Table 5.5 Evaluating the Effectiveness of Listening skills with the help of Chi-Square

	Fo	Fe	(Fo-Fe)	(Fo-Fe)²	(Fo-Fe)²/ Fe
Developed listening skills due to use of mobile device	338	319.45	18.55	344.1025	1.0771717
Developed listening skills without the use of mobile device	132	150.54	-18.54	343.7316	2.28332403
Could not develop listening skills despite of using mobile device	10	28.55	-18.55	344.1025	12.052627
No use of mobile device as well as Could not develop listening skills	32	13.45	18.55	344.1025	25.583829
	χ^2				40.9969

Source: Computed Data

It has been determined from table 5.8 that the variables are independent and compared with the p-value to the significance level. Usually, a significance level (denoted as α or alpha) of 0.05 works well. A significance level of 0.05 indicates a 5% risk of concluding that an association between the variables exists when there is no actual association.

P-value $\leq \alpha$: The variables have a statistically significant association (Reject H_0)

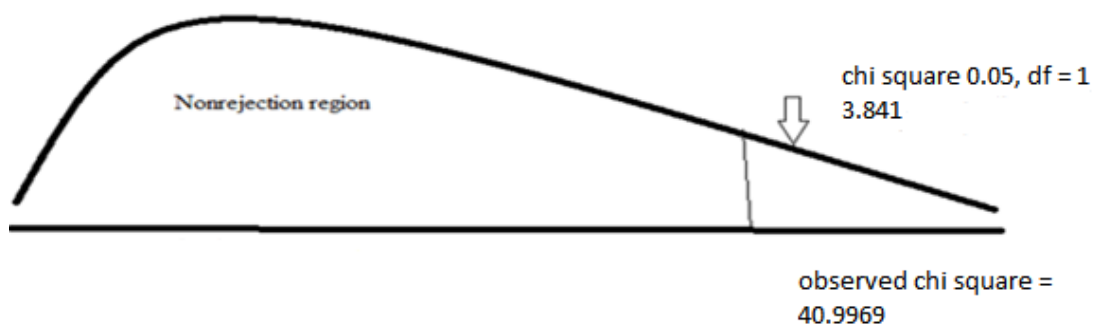
If the p-value is less than or equal to the significance level, the null hypothesis rejected and concluded that there is a statistically significant association between the variables.

P-value $> \alpha$: Cannot conclude that the variables are associated (Fail to reject H_0)

If the p-value is larger than the significance level, findings fail to reject the null hypothesis because there is not enough evidence to conclude that the variables are associated.

In these results, it has been found out that at 5% of significance level and with 1 degree of freedom the table value is 3.841 which is less than the calculated value i.e. 40.9969. Hence, the null hypothesis i.e. H_{03} : there is no significant impact of effectiveness of mobile device on developing Listening Skills of selected Engineering colleges of Gujarat is rejected and hypothesis i.e. H_{13} : there is significant impact of effectiveness of mobile device on developing Listening Skills of selected Engineering colleges of Gujarat is selected.

Graph 5.2 Evaluating the Effectiveness of Listening skills with the help of Chi-Square



Source: Computed Data

5.6 Examining the effectiveness of mobile device on developing the Speaking Skills

(A) Analysis and findings with the help of Cross Tabulation

Speaking is the ability of individual which can be developed through various learning methods in classroom as well as outside the classroom. There are many innovative practical application of language learning where listener gets concentrated on various language inputs and develop the speaking skills. Debate, elocution, group discussion, role play, games and presentations are some of the methods where one can develop vocal sounds, rhythms, flow etc in order to become sound orator. These all form the part of speaking skills.

Objective

To examine the effectiveness of mobile device on developing Speaking Skills for selected Engineering colleges of Gujarat.

Hypothesis:

H01: There is no significant effectiveness of Mobile Assisted language learning on the Speaking Skills of Engineering students of Gujarat.

H11: There is significant effectiveness of Mobile Assisted language learning on the Speaking Skills of Engineering students of Gujarat.

Table 5.6 Cross Tabulation for examining the Effectiveness of Speaking skills

	Use of mobile device For learning Language	No Use mobile device for learning Language	Total
Learned Speaking Skills	348	120	468
Not Learned Speaking Skills	35	9	44
Total	397	115	512

Source: Computed Data

Table 5.8 evaluate the effectiveness of learning speaking skills of the 512 respondents. For the said purpose, the analysis of data has been carried out through cross tabulation among the numbers of respondents using mobile device for the purposes of learning and as a result, the number of respondents learned speaking skills. The analysis depicts that out of total 512 respondents, 348 respondents have regularly used mobile device and learned the speaking skills effectively. Whereas, 120 respondents have been found not using mobile device regularly and as a result their speaking skill has not been improved. It has been further studied from the analysis that there are 35 respondents who have used mobile device but could not improve their speaking skills and 9 respondents have been found not using mobile device and as a result their speaking skills could not be improved. Hence, such analysis proves that 70% of the total respondents could bring the effectiveness in developing their Speaking skills due to the regular use of mobile device.

(B) Analysis and findings with the help of Chi-square

In order to examine the *relationship between dependent and independent variable, here, number of respondents used mobile device for learning the language and as a result, the speaking skills have been enhanced are two categorical variables in the same population.*

Table 5.7 Evaluating the Effectiveness of Speaking skills with the help of Chi-Square

	Fo	Fe	Fo-Fe	(Fo-Fe) ²	(Fo-Fe) ² /2
Developed Speaking skills due to use of mobile device	348	362.8828	-14.8828	221.4981	110.7491
Developed Speaking skills without the use of mobile device	120	105.1172	14.8828	221.4981	110.7491
Could not develop Speaking skills despite of using mobile device	35	34.1172	0.8828	0.7794	0.3897
No use of mobile device as well as Could not develop Speaking skills	9	9.8828	-0.8828	0.7794	0.3897
Chi-Square					222.2775

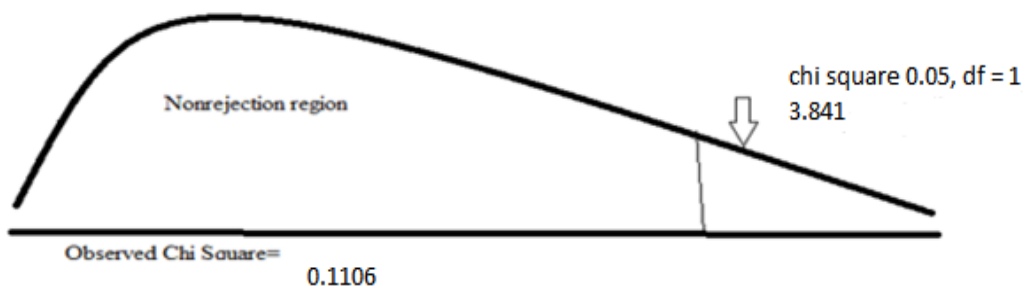
Source: Computed Data

df (degree of freedom) = (r-1)(c-1) = (2-1)(2-1) = 1, r= row c= Colum

Alpha .05 level of significance, the Critical value as per .05 and 1 df 3.841.

Table 5.9 reveals the finding at 5% of significance level and with 1 degree of freedom the Critical value is 3.841 which is more than the calculated value.i.e. 222.2775. Hence the hypothesis i.e. there is no significant effectiveness of Mobile Assisted language learning on the Speaking Skills of Engineering students of Gujarat is rejected and the hypothesis i.e. there is significant effectiveness of Mobile Assisted language learning on the Speaking Skills of Engineering students of Gujarat is accepted.

Graph 5.3 Evaluating the Effectiveness of speaking skills with the help of Chi-Square



Source: Computed Data

5.7 Examining the effectiveness of mobile device on developing the Reading Skills

(A) Analysis and findings with the help of Cross Tabulation

Objective:

To examine the effectiveness of mobile device on developing Reading Skills for selected Engineering colleges of Gujarat.

Hypothesis

H03: There is no significant effectiveness of Mobile Assisted language learning on the Reading Skills of Engineering students of Gujarat.

H13: There is significant effectiveness of Mobile Assisted language learning on the Reading Skills of Engineering students of Gujarat.

Table 5.8 Cross Tabulation for examining the Effectiveness of Reading skills

	Use of mobile device For learning Language	No Use mobile device for learning Language	Total
Learned Reading Skills	354	116	470
Not Learned Reading Skills	9	33	42
Total	363	149	512

Source: Computed Data

Table 5.10 evaluate the effectiveness of learning Reading skills of the 512 respondents. For the said purpose, the analysis of data has been carried out through cross tabulation among the numbers of respondents using mobile device for the purposes of learning and as a result, the number of respondents learned reading skills. The analysis depicts that out of total 512 respondents, 354 respondents have regularly used mobile device and learned the reading skills effectively. Whereas, 116 respondents have been found not using mobile device regularly and as a result their reading skill has not been improved. It has been further studied from the analysis that there are 9 respondents who have used mobile device but could not improve their reading skills and 33 respondents found not using mobile device and as a result their reading skills could not be improved. Hence, such analysis

proves that 69% of the total respondents could bring the effectiveness in developing their reading skills due to the regular use of mobile device.

B) Analysis and findings with the help of Chi-square

Chi-square test is designed to analyze categorical data. That means that the data has been counted and divided into categories. It will not work with parametric or continuous data. It is a statistical procedure used by researchers to examine the relationship between dependent and independent variable. Here, number of respondents used mobile device for learning the language and as a result, the reading skills have been enhanced are two categorical variables in the same population. After collecting a simple random sample of 512 engineering students, and administering a survey to this sample, the researcher had first manually observed the frequency distribution of developing reading skills and mobile device category within their sample. The researcher had then performed a Chi-Square test to validate or provide additional context for these observed frequencies. The primary survey includes the basic information in the beginning regarding gender and type of mobile application used.

Table 5.9 Evaluating the Effectiveness of Reading skills with the help of Chi-Square

	Observed Frequency (Fo)	Expected Frequency (Fe)	(Fo-Fe)	(Fo-Fe)²	(Fo-Fe)²/ Fe
Developed Reading skills due to use of mobile device	354	333.22	20.78	431.8084	1.295865794
Developed Reading skills without the use of mobile device	116	136.78	-20.78	431.8084	3.156955695
Could not develop Reading skills despite of using mobile device	9	29.78	-20.78	431.8084	14.49994627
No use of mobile device as well as Could not develop Reading skills	33	12.22	20.78	431.8084	35.33620295
	Chi Square				54.29

Source: Computed Data

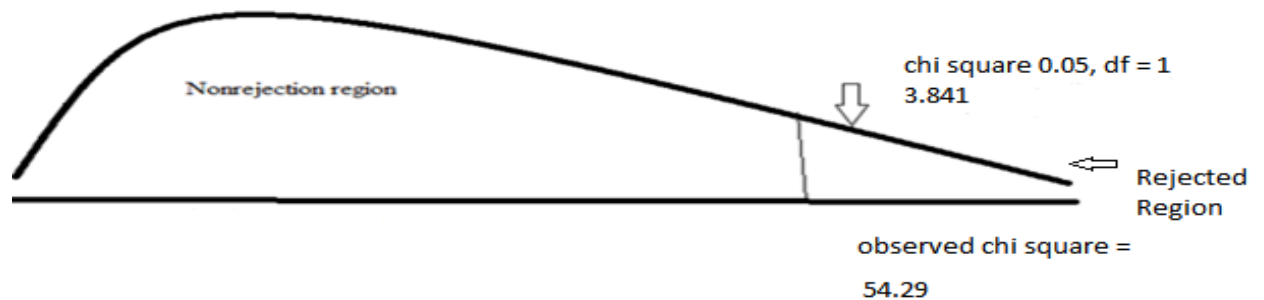
df (degree of freedom) = (r-1)(c-1) = (2-1)(2-1) = 1, r= row c= Colum

Alpha .05 level of significance , Critical value as per .05 and 1 df 3.841.

It has been determined from table 5.11 that the variables are independent and compared with the tabulated value to the significance level. Usually, a significance level (denoted as

α or alpha) of 0.05 works well. A significance level of 0.05 indicates a 5% risk of concluding that an association between the variables exists when there is no actual association.

Graph 5.4 Evaluating the Effectiveness of Reading skills with the help of Chi-Square



Source: Computed Data

In these results, it has been found out that at 5% of significance level and with 1 degree of freedom the table value is 3.841 which is less than the calculated value i.e. 54.29. Hence, the null hypothesis i.e. H_{02} : there is no significant impact of effectiveness of mobile device on developing Reading Skills of selected Engineering colleges of Gujarat is rejected and hypothesis i.e. H_{12} : there is significant impact of effectiveness of mobile device on developing Reading Skills of selected Engineering colleges of Gujarat is accepted.

5.8 Examining the effectiveness of mobile device on developing the Writing Skills

(A) Analysis and findings with the help of Cross Tabulation

Objective:

To examine the effectiveness of mobile device on developing Reading Skills for selected Engineering colleges of Gujarat.

Hypothesis

H04: There is no significant effectiveness of Mobile Assisted language learning on the Writing Skills of Engineering students of Gujarat.

H14: There is significant effectiveness of Mobile Assisted language learning on the Writing Skills of Engineering students of Gujarat.

Table 5.10 Cross Tabulation for examining the Effectiveness of writing skills

	Use of mobile device For learning Language	without Use of mobile device learned the Language	Total
Learned writing Skills	322	148	470
Not Learned writing Skills	19	23	42
Total	341	171	512

Source: Computed Data

Table 5.12 evaluate the effectiveness of learning writing skills of the 512 respondents. For the said purpose, the analysis of data has been carried out through cross tabulation among the numbers of respondents using mobile device for the purposes of learning and as a result, the number of respondents learned writing skills. The analysis depicts that out of total 512 respondents, 322 respondents have regularly used mobile device and learned the writing skills effectively. Whereas, 148 respondents have been found not using mobile device regularly and as a result their writing skill has not been improved. It has been further studied from the analysis that there are 19 respondents who have used mobile device but could not improve their writing skills and 23 respondents found not using mobile device and as a result their reading skills could not be improved. Hence, such analysis proves that 62% of the total respondents could bring the effectiveness in developing their writing skills due to the regular use of mobile device.

B) Analysis and findings with the help of Chi-square

In order to examine the *relationship between dependent and independent variable, here, number of respondents used mobile device for learning the language and as a result, the writing skills have been enhanced are two categorical variables in the same population.*

Table 5.11 Evaluating the Effectiveness of writing skills with the help of Chi-Square

	Fo	Fe	(Fo-Fe)	(Fo-Fe)²	(Fo-Fe)²/ Fe
Developed writing skills due to use of mobile device	322	313.027	8.973	80.51473	0.257213368
Developed writing skills without the use of mobile device	148	156.97	-8.97	80.4609	0.512587756
Could not develop writing skills despite of using mobile device	19	27.97	-8.97	80.4609	2.876685735
No use of mobile device as well as Could not develop writing skills	23	14.027	8.973	80.51473	5.739982106
Chi Square					9.386

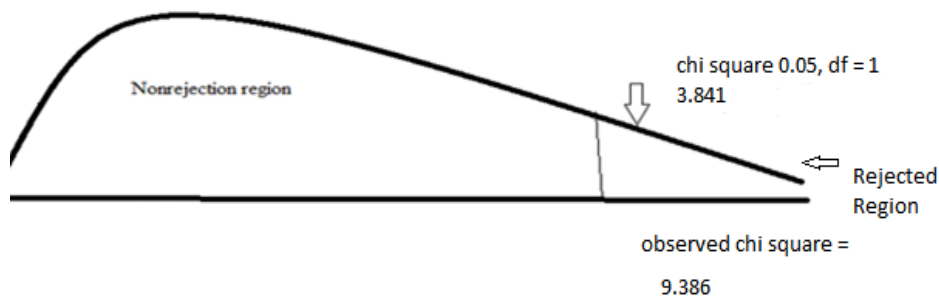
Source: Computed Data

df (degree of freedom) = (r-1)(c-1) = (2-1)(2-1) = 1, r= row c= Colum

Alpha .05 level of significance , Critical value as per .05 and 1 df 3.841.

It has been revealed from table 5.13 that at 5% of significance level and with 1 degree of freedom the table value is 3.841 which is less than the calculated value.i.e.9.386. Hence, the hypothesis i.e. there is no significant effectiveness of Mobile Assisted language learning on the Writing Skills of Engineering students of Gujarat is rejected and the hypothesis i.e. there is significant effectiveness of Mobile Assisted language learning on the Writing Skills of Engineering students of Gujarat is accepted.

Graph 5.5 Evaluating the Effectiveness of writing skills with the help of Chi-Square



Source: Computed Data

Section-III

Section-III of this research study presents the detail analysis on the use of mobile device and thereby improving the following

- English learning process,
- the ease of using mobile device compare to desktop,
- how the features of mobile device such as, Internet browsing/Applications/ Music/ text messaging/ Gaming/ Camera and other utilities play an important role for providing an exposure for learning English,

- Surfing websites and social network applications such as, WhatsApp face book etc. through mobile device are easier than surfing the same on desktop and laptop,
- how the regular use of Mobile device in reading messages and listening to informative videos improves listening as well as reading skills, how the regular use of Mobile device in taxing messages via SMS service or Social media services such as WhatsApp, Instagram, face book etc. improves written skills, and
- how the use of mobile device for English language learning Apps gives more exposure in learning English

In order to draw the inferences the Chi-square analysis has been carried by considering the responses and agreements of respondents for using various features of mobile device for the purpose of learning language and developed LSRW skills.

5.9 The use of mobile device enhances (improves) the English learning process:

It has been studied in previous I and II sections that there is significant role of mobile device in improving LSRW skills of the respondents through finding out the relationship between the number of mobile device users' and due to it the improvement or development in their learning of LSWR skills. The extension of both the previous sections has been studied in section-III as under.

Hypothesis

Ho: There is no significant effectiveness of Mobile device in improving the English learning process.

H1: There is significant effectiveness of Mobile device in improving the English learning process.

Table 5.12 Usages of mobile device and improving the English Learning process

	No of Respondents	In %
Agree	203	39.65
Disagree	11	2.15
Strongly agree	232	45.31
Strongly disagree	37	7.23
Undecided	29	5.66
Grand Total	512	100

Source: Computed Data

Table 5.14 reveals that out of total 512 respondents, 232 respondents have given their strong agreement that the use of mobile device enhances (improves) the English learning process. Whereas, 203 respondents have agreed that the use of mobile device enhances (improves) the English learning process. Such analysis portrays that 45.31% and 39.65% of the total respondents have shown that there is effect of mobile usage on English learning process.

Table 5.13 the relationship between the usage of mobile device and improvement in the process of learning English

Details	Fo	Fe	(Fo-Fe)	(Fo-Fe) ²	(Fo-Fe) ² / Fe
Agree	203	102.4	100.6	10120.36	98.83164063
Disagree	11	102.4	-91.4	8353.96	81.58164063
Strongly agree	232	102.4	129.6	16796.16	164.025
Strongly disagree	37	102.4	-65.4	4277.16	41.76914063
Undecided	29	102.4	-73.4	5387.56	52.61289063
Chi-square					438.8203125

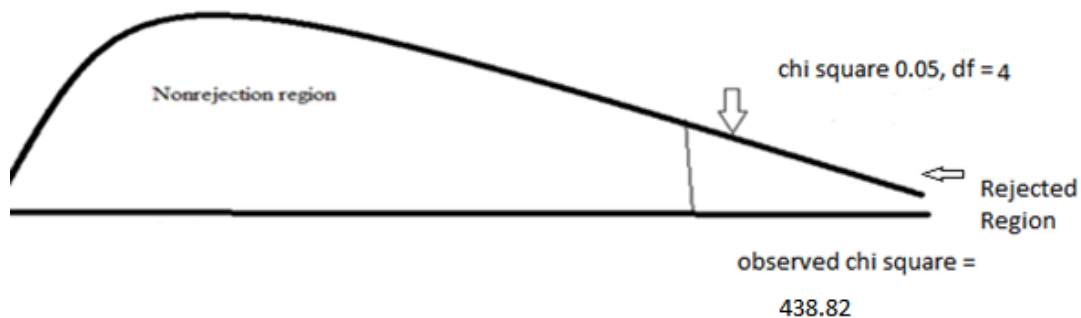
Source: Computed Data

df (degree of freedom) = (r-1)(c-1) = (5-1)(2-1) = 4, r= row c= Colum

Alpha .05 level of significance , Critical value as per .05 and 4 df 9.488

It has been revealed from table 5.15 that at 5% of significance level and with 1 degree of freedom the table value is 9.488 which is less than the calculated value. i.e. 438.8203125. Hence, the hypothesis i.e. there is no significant effectiveness of Mobile device in improving the English learning process is rejected and the hypothesis i.e. There is significant effectiveness of Mobile device in improving the English learning process is accepted.

Graph 5.6 The relationship between the usages of mobile device and improving the English Learning process



Source: Computed Data

5.10 Ease of using Mobile device compare to English learning process through Desktop

It has been seen that mobile device is portable and can be used anywhere anytime. Desktop is not portable and can't use anywhere anyplace. It requires a fix place. Finding of English learning process by comparison of mobile device with desktop portrays favorable results to state the effectiveness of learning process through mobile device.

Hypothesis

Ho: There is no significant effectiveness of English learning process through mobile device compare to desktop

H1: There is significant effectiveness of English learning process through mobile device compare to desktop

Table 5.14 Comparison of English learning process through mobile device with Desktop

Details	No of Respondents	In %
Agree	172	33.59
Disagree	25	4.88
Strongly agree	235	45.90
Strongly disagree	42	8.20
Undecided	38	7.42
Grand Total	512	100

Source: Computed Data

Table 5.16 reveals that 33.59% of the total respondents agreed that mobile device is easier in operating compare to desktop or any other electronic communicative device. 4.88% of the total respondents found that use of mobile device is not easier than desktop. Whereas, 45.90% of the total respondents were strongly agreed that the use of mobile device is easier in compare to use of desktop in learning process. The overall analysis depicts that 80% (i.e. 407 respondents) of the total respondents were found using mobile device is easier in compare to desktop for the learning process of the English. Such analysis logically explains that use of mobile device notably brings the effectiveness in learning process.

Table 5.14.1 Comparison of English learning process through mobile device with Desktop

	Fo	Fe	(Fo-Fe)	(Fo-Fe) ²	(Fo-Fe) ² / Fe
Agree	172	102.4	69.6	4844.16	47.30625
Disagree	25	102.4	-77.4	5990.76	58.50351563
Strongly agree	235	102.4	132.6	17582.76	171.7066406
Strongly disagree	42	102.4	-60.4	3648.16	35.6265625
Undecided	38	102.4	-64.4	4147.36	40.5015625
Grand Total					353.6445313

Source: Computed Data

Table 5.17 finds out the easier trait of mobile device in compare to the use of desktop in learning the English language with the help of Chi-square. The analysis at 5% of the

significance level and with 1 degree of freedom, the table value is 9.488 which is less than the calculated value. i.e. 353.6445313 hence, the hypothesis i.e. there is no significant effectiveness of English learning process through mobile device compare to desktop is rejected and the hypothesis i.e. there is no significant effectiveness of English learning process through mobile device compare to desktop is accepted.

5.11 Various features of Mobile device play an important role for providing an exposure for learning English.

With the advent of constant technological innovation, day-by day mobile devices are introduced with various new features such as Internet browsing, use of applications, listening music, communicating through text messages, testing grammatical errors, developing logical thinking through playing games, using camera for scanning documents and reading materials etc also provide more coverage of mobile device utility and enable the users to add in their learning process of English.

Hypothesis

Ho: there is no significant effectiveness of the features of Mobile device such as Internet browsing, use of applications, listening music, communicating through text messages, testing grammatical errors, developing logical thinking through playing games, using camera for scanning documents and reading materials in learning English.

H1: there is significant effectiveness of the features of Mobile device such as Internet browsing, use of applications, listening music, communicating through text messages, testing grammatical errors, developing logical thinking through playing games, using camera for scanning documents and reading materials on learning English.

Table 5.15 Role of mobile device’s features in learning process of English

Details	No of Respondents	In %
Agree	215	41.99
Disagree	11	2.15
Strongly agree	220	42.97
Strongly disagree	37	7.23
Undecided	29	5.66
Grand Total	512	100.00

Source: Computed Data

Table 5.18 finds out that 41.99% of the total respondents have agreed that various features of mobile device significantly play an important role in learning process of English and 42.97% of the total respondents have opined that they are strongly agree with the same. Whereas, 9.38% of the total respondents, did not agree that the use of additional features of mobiles adds in the learning process. Such analysis reveals that the total 435respondents uses additional features of mobile device in their learning process of English which is a good sign.

Table 5.15.1 Role of mobile device’s features in learning process of English

	Fo	Fe	(Fo-Fe)	(Fo-Fe)²	(Fo-Fe)²/ Fe
Agree	215	102.4	112.6	12678.76	123.8160156
Disagree	11	102.4	-91.4	8353.96	81.58164063
Strongly agree	220	102.4	117.6	13829.76	135.05625
Strongly disagree	37	102.4	-65.4	4277.16	41.76914063
Undecided	29	102.4	-73.4	5387.56	52.61289063
Grand Total					434.8359375

Source: Computed Data

Table 5.19 finds out the effectiveness in learning process of English due to the use of various features of mobile device with the help of Chi-square. The analysis at 5% of the significance level and with 1 degree of freedom, the critical value is 9.488 which is less than the calculated value. i.e. 434.8359375 hence, the hypothesis i.e. there is no significant effectiveness of the features of Mobile device such as Internet browsing, use of applications, listening music, communicating through text messages, testing grammatical errors, developing logical thinking through playing games, using camera for scanning documents and reading materials on learning English is rejected and hypothesis i.e. there is significant effectiveness of the features of Mobile device such as Internet browsing, use of applications, listening music, communicating through text messages, testing grammatical errors, developing logical thinking through playing games, using camera for scanning documents and reading materials on learning English is accepted.

5.12 Surfing websites and social network applications such as WhatsApp, Face book etc. through mobile device is easier than surfing the same through the desktop and laptop.

While comparing the MALL to CALL, it is quite interesting to find out the role of surfing websites and social network applications in adding the English learning process. The following analysis reveals the easy operating of mobile device compare to desktop or laptop in learning the English.

Ho: There is no considerable relationship between the surfing of websites and applications through Mall or Call

H1: There is a considerable relationship between the surfing of websites and applications through Mall or Call

There is no considerable relationship between the surfing of websites and applications through Mall or Call

Table 5.16 Comparison of surfing websites and applications between Mobile device and Desktop

Details	No of Respondents	In %
Agree	201	39.26
Disagree	11	2.15
Strongly agree	217	42.38
Strongly disagree	36	7.03
Undecided	47	9.18
Grand Total	512	100.00

Source: Computed Data

Table 5.20 reveals that 418 (81.64%) out of total 512 respondents have been agreed that surfing of websites and social network applications such as WhatsApp, Face book etc. through mobile device is easier than surfing the same through the desktop and laptop. whereas, remaining 18.36% of the total respondents denied the same. Such analysis shows the considerable positive relationship between the surfing of websites and applications through Mall or Call

Table 5.16.1 Comparison of surfing websites and applications between Mobile device and Desktop

	Fo	Fe	(Fo-Fe)	(Fo-Fe)²	(Fo-Fe)²/ Fe
Agree	201	102.4	98.6	9721.96	94.94101563
Disagree	11	102.4	-91.4	8353.96	81.58164063
Strongly agree	217	102.4	114.6	13133.16	128.2535156
Strongly disagree	36	102.4	-66.4	4408.96	43.05625
Undecided	47	102.4	-55.4	3069.16	29.97226563
Grand Total					377.8046875

Source: Computed Data

Table 5.21 finds out the comparison of surfing websites and applications mobile device and desktop with the help of chi-square. The analysis at 5% of the significance level and with 1 degree of freedom, the critical value is 9.488 which is less than the calculated value. i.e. 377.8046875 hence, the hypothesis i.e. there is no considerable relationship between the surfing of websites and applications through Mall or Call is rejected and the hypothesis i.e. there is considerable relationship between the surfing of websites and applications through Mall or Call is accepted.

5.13 The regular use of Mobile device in reading messages and listening to informative video improves English language listening as well as reading skills.

There is a substantial role of mobile device in developing LSRW skills of mobile device users. The following analysis presents the regular use of Mobile device in reading messages and listening to informative video improves English language listening as well as reading skills.

Hypothesis

Ho: there is no significant effectiveness of regular use of Mobile device in reading messages and listening to informative video on improving listening as well as reading skills of English language.

H1: there is significant effectiveness of regular use of Mobile device in reading messages and listening to informative video on improving listening as well as reading skills of English language.

Table 5.17 The regular use of Mobile device in improving listening and reading skills.

Details	No of Respondents	In %
Agree	210	41.02
Disagree	9	1.76
Strongly agree	239	46.68
Strongly disagree	37	7.23
Undecided	17	3.32
Grand Total	512	100.00

Source: Computed Data

Table 5.22 finds out the regular use of mobile device in improving listening and reading skills of 512 respondents. It has been found from the analysis that 87.70% (449) of the total respondents have been agreed and strongly agreed that their listening and reading skills have been enhanced due to the regular use of mobile device. Such analysis presents that except 12.30% of the total respondents, the use of mobile devices adds in improving skills.

Table 5.17.1 the regular use of Mobile device in improving listening and reading skills.

	Fo	Fe	(Fo-Fe)	(Fo-Fe) ²	(Fo-Fe) ² / Fe
Agree	210	102.4	107.6	11577.76	113.0640625
Disagree	9	102.4	-93.4	8723.56	85.19101563
Strongly agree	239	102.4	136.6	18659.56	182.2222656
Strongly disagree	37	102.4	-65.4	4277.16	41.76914063
Undecided	17	102.4	-85.4	7293.16	71.22226563
Grand Total					493.46875

Source: Computed Data

Table 5.23 presents the findings of the regular use of Mobile device in improving listening and reading skills with the help of Chi-square. The analysis at 5% of the significance level and with 1 degree of freedom, the critical value is 9.488 which is less than the calculated value. i.e. 493.46875 hence, the hypothesis i.e. there is no significant effectiveness of regular use of Mobile device in reading messages and listening to informative video in improving listening as well as reading skills of English language is rejected and the

hypothesis i.e. there is a significant effectiveness of regular use of Mobile device in reading messages and listening to informative video in improving listening as well as reading skills of English language is accepted.

5.14 The regular use of Mobile device in taxing messages via SMS service or Social media services such as WhatsApp, Instagram, face book etc. improve written skills of English language.

Sound Written skill is the outcome of frequently writing various contents from different context through any medium. The following analysis finds out the improving written skills due to the regular use of Mobile device in taxing messages, sending written message through social media such as WhatsApp, Instagram, face book etc.

Hypothesis

Ho: there is no significant effectiveness of regular use of Mobile device taxing messages, sending written message through social media such as WhatsApp, Instagram, Face book on improving written skills

H1: there is a significant effectiveness of regular use of Mobile device taxing messages, sending written message through social media such as WhatsApp, Instagram, Face book on improving written skills

Table 5.18 the regular use of Mobile device in improving written skills.

Details	No of Respondents	In %
Agree	190	37.11
Disagree	38	7.42
Strongly agree	216	42.19
Strongly disagree	39	7.62
Undecided	29	5.66
Grand Total	0	0.00

Source: Computed Data

It has been found from the analysis presented in table 5.24 that out of total 512 respondents, 406 respondents (i.e. 79.30%) have been agreed and strongly agreed that their written skills have been enhanced due to the regular use of mobile device in texing the routine messages, communicating through WhatsApp , Face book and Instagram in written

form. The remaining 20.705% respondents' denied the same. Such analysis indicates that the usage of mobile device enhance the written skills.

Table 5.19 the regular use of Mobile device in improving written skills.

	Fo	Fe	(Fo-Fe)	(Fo-Fe)²	(Fo-Fe)²/ Fe
Agree	190	102.4	87.6	7673.76	74.9390625
Disagree	38	102.4	-64.4	4147.36	40.5015625
Strongly agree	216	102.4	113.6	12904.96	126.0250000
Strongly disagree	39	102.4	-63.4	4019.56	39.2535156
Undecided	29	102.4	-73.4	5387.56	52.6128906
Grand Total					333.3320313

Source: Computed Data

Table 5.25 presents the analysis of the regular use of mobile device in improving written skills of 512 respondents with the help of Chi-square. The analysis at 5% of the significance level and with 1 degree of freedom, the critical value is 9.488 which is less than the calculated value. i.e. 333.3320313hence, the hypothesis i.e. there is no significant effectiveness of regular use of Mobile device taxing messages, sending written message through social media such as WhatsApp, Instagram, Face book on improving written skills is rejected and the hypothesis i.e. there is a significant effectiveness of regular use of Mobile device taxing messages, sending written message through social media such as WhatsApp, Instagram, Face book on improving written skills is accepted.

5.15 The use of mobile device in English language learning Apps provides more exposure in learning English.

Every day innovation in computer programming has made possible to develop various applications. There are various applications available for various purposes. The specific English language learning applications are also hugely available on internet. The following analysis presents the wide exposure in learning English language by specific English language leaning applications through the use of mobile device.

Hypothesis:

H0: There is no significant relationship between English learning and English language learning application through the use of mobile phone

H0: There is a significant relationship between English learning and English language learning application through the use of mobile phone

Table 5.20 The use of Mobile device in learning English language through specific English language learning Apps

Details	No of Respondents	In %
Agree	208	40.63
Disagree	6	1.17
Strongly agree	220	42.97
Strongly disagree	36	7.03
Undecided	42	8.20
Grand Total	512	100.00

Source: Computed Data

Table 5.24 reveals that out of total 512 respondents 406 (83.60%) respondents have been agreed and strongly agreed to opine that there is relationship between English learning and English language learning application through the use of mobile device. Such analysis indicates the positive and significant relationship leading towards developing learning process.

Table 5.20.1 the use of Mobile device in learning English language through specific English language learning Apps

	Fo	Fe	(Fo-Fe)	(Fo-Fe) ²	(Fo-Fe) ² / Fe
Agree	208	102.4	105.6	11151.36	108.9
Disagree	6	102.4	-96.4	9292.96	90.7515625
Strongly agree	220	102.4	117.6	13829.76	135.05625
Strongly disagree	36	102.4	-66.4	4408.96	43.05625
Undecided	42	102.4	-60.4	3648.16	35.6265625
Chi-Square					413.390625

Source: Computed Data

Table 5.27 provides the relationship between the use of Mobile device in learning English language and English language learning applications. The analysis at 5% of the significance level and with 1 degree of freedom, the critical value is 9.488 which is less than the calculated value. i.e. 413.390625 hence, the hypothesis i.e. There is no significant relationship between English learning and English language learning application through the use of mobile device is rejected and the hypothesis i.e. there is a significant relationship

between English learning and English language learning application through the use of mobile device is accepted.

Section –IV 5.16 Rating of MALL Contribution in improvising learners’ learning skills

Section-IV is investigating the rating of MALL Contribution in improvising learners’ learning skills such as listening, speaking, reading, writing, improving vocabulary, improving pronunciation, improving presentation, developing entrepreneurial spirit, reasoning, developing learning habits, improving logical thinking, improving general knowledge, improving competitive aptitude. The main objective of rating MALL contribution is to find out as to how the respondents could improve their various opinions about mobile device. In order to find out achieve such objective, the analysis of data has been carried out with the help of factor analysis.

Factor analysis is a technique that is used to reduce a large number of variables into fewer numbers of factors. This technique extracts maximum common variance from all variables selected for finding out the effectiveness of mobile device on developing skills and puts them into a common score. Factor analysis applied in this research to describe variability among the similar patterns of responses derived for selected variables such as developing listening skills, speaking skills, reading skills, writing skills, improving vocabulary, Improving pronunciation, Improving presentation skills, improving entrepreneurial skills, improving reasoning skills, Learning habits, Improving logical skills, Improving general knowledge and Improving competitive skills and addresses whether these responses “hang together” creates a construct? The correlated variables in terms of a potentially lower number of unobserved variables comes out as a factors which can be understood as high influencing variables for developing the effectiveness of mobile device in learning skills.

Table 5.21 Rating of MALL Contribution in Improving Various Learning skills

	Total	Good	Better	Average	Best	Excellent	Total
Listening	512	16%	14%	12%	10%	48%	100%
Speaking	512	14%	16%	10%	10%	50%	100%
Reading	512	15%	14%	16%	8%	47%	100%
Writing	512	15%	13%	16%	10%	46%	100%
Improving Vocabulary	512	14%	14%	15%	11%	46%	100%
Improving pronunciation	512	14%	14%	16%	15%	41%	100%
Improving presentation skills	512	15%	12%	16%	16%	41%	100%
Entrepreneurial Skills	512	16%	13%	18%	15%	38%	100%
Reasoning Skills	512	14%	14%	86%	13%	39%	100%
Learning habits	512	12%	17%	12%	17%	42%	100%
Improving logical skills	512	14%	12%	13%	16%	44%	100%
Improving general knowledge	512	12%	13%	10%	17%	48%	100%
Improving competitive skills	512	13%	14%	11%	15%	46%	100%

Source: Author's own calculation

Table 5.28 demonstrates the rating of MALL contribution in improving various skills by 512 respondents selected for this study. 5 different rating parameters such as Good, Better, Average, Best and Excellent have been taken into consideration. It has been found that the highest rating between 41% to 50% has been given by respondents to the parameter called excellent.

Analysis with the help of Factor analysis

In order make data cleaning, before applying the factor analysis, the following steps were implemented:

Step 1: Analysed frequency, to check missing value.

The missing value has been checked with the help of frequency distribution provided in table 5.28.

Step 2: Found out **KMO**

Table 5.22 Result of KMO

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.967
Bartlett's Test of Sphericity	Approx. Chi-Square	9142.348
	df	78
	Sig.	.000

Source: Author's own calculation

It has been found from table 5.29 that the result of Kaiser-Meyer-Olkin Measure of Sampling Adequacy is varies between 0 and 1, and values closer to 1 are better. A value of .6 is a suggested minimum. If value of KMO is more than 0.6, it means so sufficiently good. Here the value is 0.967 which is more than 0.6.

Step 3: Calculated Communalities:

Communalities test the null hypothesis that the correlation matrix is an identity matrix. Communalities indicate the amount of variance in each variable that is accounted for. Higher communality indicated that larger amount of the variance in the variable has been extracted by the factor solution.

Table 5.23 Calculation of Communalities

	Initial	Extraction
Listening	1.000	.754
Speaking	1.000	.784
Reading	1.000	.784
Writing	1.000	.816
Improving Vocabulary	1.000	.821
Improving pronunciation	1.000	.834
Improving presentation skills	1.000	.833
Entrepreneurial Skills	1.000	.817
Reasoning Skills	1.000	.832
Learning habits	1.000	.830
Improving logical skills	1.000	.828
Improving general knowledge	1.000	.772
Improving competitive skills	1.000	.814

Source: Author's own calculation

Table 5.30 shows two values of communalities. One is Initial communalities and 2nd is Extraction. Initial communalities are estimates of the variance in each variable accounted for by all components or factors. For principal components extraction, this is always equal to 1.0 for correlation analyses. Extraction communalities are estimates of the variance in each variable accounted for by the components. For better measurement of factor analysis communalities should be 0.4 or greater. The communalities in this table are all high, which indicates that the extracted components represent the variables well.

Step 4: Checked anti image correlation.

Table 5.24 Checking of anti image correlation

Anti-image Matrices													
	1	2	3	4	5	6	7	8	9	10	11	12	13
1	.980 _a	-.29	-.10	-	-.08	-.08	-.03	-.04	-.07	-.03	.11	-	-
2	-.29	.952 _a	-.38	-	.15	-.14	-.01	.08	.05	-.13	-.12	-	.05
3	-.10	-.38	.966 _a	-	-.19	.08	.03	-.06	-.15	-.10	.00	-	.07
4	-.05	-.20	-.12	.980 _a	-.15	-.01	-.11	-.16	-.02	-.03	-.02	.11	-
5	-.08	.15	-.19	-	.969 _a	-.37	-.04	-.05	-.05	-.02	-.07	-	-.01
6	-.08	-.14	.08	-	-.37	.967 _a	-.19	-.15	-.07	.09	-.08	.02	-
7	-.03	-.01	.03	-	-.04	-.19	.982 _a	-.23	-.15	-.03	-.09	-	-.06
8	-.04	.08	-.06	-	-.05	-.15	-.23	.961 _a	-.41	-.10	.02	-	.12
9	-.07	.05	-.15	-	-.05	-.07	-.15	-.41	.964 _a	-.09	-.12	.16	-
10	-.03	-.13	-.10	-	-.02	.09	-.03	-.10	-.09	.976 _a	-.24	-	-.28
11	.11	-.12	.00	-	-.07	-.08	-.09	.02	-.12	-.24	.966 _a	-	-.02
12	-.08	-.10	-.03	.11	-.09	.02	-.06	-.03	.16	-.04	-.39	.948 _a	-.42
13	-.06	.05	.07	-	-.01	-.13	-.06	.12	-.14	-.28	-.02	-	.957 _a

Source: Author's own calculation

Table 5.31 found the anti image correlation where all possible values range from -1 to +1. All diagonal elements which are highlighted in green colours are near to 1. Therefore such analysis led to explain the total variances.

Table 5.25 Calculation of total variances

Total Variance Explained						
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	10.520	80.923	80.923	10.520	80.923	80.923
2	1.456	3.507	84.430	1.456	3.507	
3	1.410	3.151	87.581	1.410	3.151	
4	.257	1.980	89.562			
5	.224	1.725	91.287			
6	.198	1.521	92.808			
7	.183	1.410	94.218			
8	.155	1.194	95.412			
9	.146	1.120	96.532			
10	.138	1.059	97.591			
11	.122	.937	98.527			
12	.105	.806	99.333			
13	.087	.667	100.000			

Source: Author's own calculation

Table 5.32 found out that component no 1 explaining 80% of variances and therefore, becomes the most important factor. The most important factors can be found out whose Eigen value is more than 1. The results found that 3 most important factors such as Listening, Speaking and reading have more Eigen values are 10.520, 1.456 and 1.410 respectively. Hence, the analysis revealed that rating of MALL contribution has improvised Listening, speaking and reading skills more compare to the rest of the skills selected as a variable for factor analysis.

5.17 Cross verification of rating of Mall Contribution in improvising learners' learning skills with the help of cross tabulation and Chi-square

Hypothesis:

Ho: There is no significant effect of MALL on improving speaking skills.

H1: There is a significant effect of MALL on improving speaking skills.

Table 5.26 Rating of Mall Contribution in improvising learners' learning skills

Skills	Average	Best	Better	Excellent	Good	Total
Listening	63	52	72	244	81	512
in %	12	10	14	48	16	100
Speaking	50	52	81	255	74	512
in %	10	10	16	50	14	100
Reading	81	39	72	242	78	512
in %	16	8	14	47	15	100
Writing	82	53	66	236	75	512
in %	16	10	13	46	15	100
Improving Vocabulary	76	55	72	236	73	512
in %	15	11	14	46	14	100
Improving Pronunciation	83	77	72	208	72	512
in %	16	15	14	41	14	100
presentation skills	83	82	60	209	78	512
in %	16	16	12	41	15	100
Entrepreneurial Skills	92	75	66	196	83	512
in %	18	15	13	38	16	100
Reasoning Skills	95	69	74	202	72	512
in %	19	13	14	39	14	100
Learning habits	60	87	88	216	61	512
in %	12	17	17	42	12	100
Improving logical skills	66	81	63	228	74	512
in %	13	16	12	45	14	100
General knowledge	50	87	67	247	61	512
in %	10	17	13	48	12	100
Competitive Skills	54	77	74	239	68	512
in %	11	15	14	47	13	100

Source: Computed Data

Table 5.33 finds out that out of 512 respondents more than 200 respondents have rated excellent which indicates that there is a significant effect of use of mobile device in improving the skills. Between 46% to 50% respondents have given rating to Listening, Speaking, Writing, reading, developing general knowledge and developing competitive skills. Inferences derived through cross tabulation also substantially equates with the findings derived through the factor analysis. Hence, it can be said that there is a significant effect of MALL contribution in improving various skills specifically LSWR skills.

Table 5.27 Rating of Mall Contribution in improvising learners' learning skills

	Fo	Fe	(Fo-Fe)²	(Fo-Fe)²/Fe
Average	63	102.4	1552.36	15.16
Best	52	102.4	2540.16	24.81
Better	72	102.4	924.16	9.03
Excellent	244	102.4	20050.56	195.81
Good	81	102.4	457.96	4.47
Grand Total	512			
X²				249.27

Source: Computed Data

Table 5.34 provides the relationship between the MALL contribution and improving various skills. The analysis at 5% of the significance level and with 1 degree of freedom, the critical value is 9.488 which is less than the calculated value. i.e. 249.27 hence, the hypothesis i.e. there is no significant effect of MALL on improving speaking skills is rejected and the hypothesis i.e. there is a significant effect of MALL on improving speaking skills is accepted.

Hypothesis

Ho: There is no significant effect class room contribution or traditional learning method for improving various skills.

H1: There is a significant effect class room contribution or traditional learning method for improving various skills.

Table 5.28 Rating the class room contribution or traditional learning method for improving various skills.

	Average	Best	Better	Excellent	Good	Grand Total
Listening	63.0	37.0	211.0	44.0	157.0	512.0
in %	12.3	7.2	41.2	8.6	30.7	100.0
Speaking	58.0	45.0	241.0	54.0	114.0	512.0
in %	11.3	8.8	47.1	10.5	22.3	100.0
Reading	72.0	51.0	183.0	55.0	151.0	512.0
in %	14.1	10.0	35.7	10.7	29.5	100.0
Writing	69.0	57.0	195.0	38.0	153.0	512.0
in %	13.5	11.1	38.1	7.4	29.9	100.0
Improving Vocabulary	78.0	47.0	183.0	32.0	172.0	512.0
in %	15.2	9.2	35.7	6.3	33.6	100.0
Improving pronunciation	74.0	53.0	202.0	29.0	154.0	512.0
in %	14.5	10.4	39.5	5.7	30.1	100.0
Improving presentation skills	81.0	47.0	193.0	36.0	155.0	512.0
in %	15.8	9.2	37.7	7.0	30.3	100.0
Entrepreneurial Skills	77.0	47.0	190.0	22.0	176.0	512.0
in %	15.0	9.2	37.1	4.3	34.4	100.0
Reasoning Skills	88.0	39.0	175.0	38.0	172.0	512.0
in %	17.2	7.6	34.2	7.4	33.6	100.0
Learning habits	66.0	60.0	182.0	40.0	164.0	512.0
in %	12.9	11.7	35.5	7.8	32.0	100.0
Improving logical skills	83.0	46.0	182.0	49.0	152.0	512.0
in %	16.2	9.0	35.5	9.6	29.7	100.0
Improving general knowledge	68.0	47.0	209.0	43.0	145.0	512.0
in %	13.3	9.2	40.8	8.4	28.3	100.0
Improving competitive skills	74.0	42.0	182.0	46.0	168.0	512.0
in %	14.5	8.2	35.5	9.0	32.8	100.0

Source: Computed Data

Table 5.35 reveals the rating of class room contribution/traditional method for the improving various Skills. It has been found that out of 512 respondents; more that 180 respondents (between 35% to 40%) have rated the class room contribution or traditional methods develops a better learning and improves the skills. Whereas, between 5% to 10% of the total respondents have rated excellent which indicates the poor rating for improving the skills through class room or traditional learning methods compare with the improving of skills through the application of MALL in learning.

Table 5.29 Rating of Class Room Contribution/Traditional Method in terms of Easiness of Learning

	Easy of Learning	Content	Writing Skill	Engagement Level	Convenience	Overall Satisfaction
Average	86	84	87	95	88	88
Best	53	50	55	53	58	58
Better	194	228	189	194	165	158
Excellent	31	30	46	30	28	39
Good	148	120	135	140	173	169
Grand Total	512	512	512	512	512	512

Source: Computed Data

Table 5.36 reveals that rating of class room contribution/traditional method in terms of easiness of learning, content understanding, writing skills, engagement level, and convenience level and overall satisfaction of respondents is very much low. Only 39 respondents gave excellent rating

5.18 Rating preference analysis of Class Room Contribution/Traditional Method through Chi-square

Developing Ease of learning

Hypothesis

H0: There is no significant effect of Class Room Contribution/Traditional Method in developing ease of learning

H1: There is a significant effect of Class Room Contribution/Traditional Method in developing ease of learning

Table 5.30 Developing Ease of learning

Fo	Fe	(Fo-Fe)	(Fo-Fe)²	(Fo-Fe)²/Fe
86	102.4	-16.4	268.96	2.626563
53	102.4	-49.4	2440.36	23.83164
194	102.4	91.6	8390.56	81.93906
31	102.4	-71.4	5097.96	49.78477
148	102.4	45.6	2079.36	20.30625
512	512			
X ²				178.4883

Source: Computed data

Table 5.37 reveals that at 5% of significance level and with 1 degree of freedom the table value is 3.841 which is less than the calculated value.i.e. 178.4883. Hence, the hypothesis i.e. there is no significant effect of Class Room Contribution/Traditional Method in developing ease of learning is rejected and the hypothesis i.e. there is a significant effect of Class Room Contribution/Traditional Method in developing ease of learning is accepted.

Improving the content of Language

Hypothesis

H0: There is no significant effect of Class Room Contribution/Traditional Method in improving the content of language

H1: There is a significant effect of Class Room Contribution/Traditional Method in improving the content of language

Table 5.31 improving the content of Language

Fo	Fe	(Fo-Fe)	(Fo-Fe)²	(Fo-Fe)²/Fe
84	102.4	-18.4	338.56	3.30625
50	102.4	-52.4	2745.76	26.81406
228	102.4	125.6	15775.36	154.0563
30	102.4	-72.4	5241.76	51.18906
120	102.4	17.6	309.76	3.025
512	512			
				238.3906

Source: Computed data

It has been revealed from table 5.38 that at 5% of significance level and with 1 degree of freedom the table value is 3.841 which is less than the calculated value i.e. 238.3906. Hence, the hypothesis i.e. there is no significant effect of Class Room Contribution/Traditional Method in improving the content of language is rejected and the hypothesis i.e. there is a significant effect of Class Room Contribution/Traditional Method in improving the content of language is accepted.

Improving the Writing Skills

H0: There is no significant effect of Class Room Contribution/Traditional Method in Improving the Writing Skills

H1: There is a significant effect of Class Room Contribution/Traditional Method in Improving the Writing Skills

Table 5.32 Improving the Content of Language

Fo	Fe	(Fo-Fe)	(Fo-Fe) ²	(Fo-Fe) ² /Fe
87	102.4	-15.4	237.16	2.316016
55	102.4	-47.4	2246.76	21.94102
189	102.4	86.6	7499.56	73.23789
46	102.4	-56.4	3180.96	31.06406
135	102.4	32.6	1062.76	10.37852
512	512	0		
				138.9375

Source: Computed data

It has been found from table 5.39 that at 5% of significance level and with 1 degree of freedom the table value is 3.841 which is less than the calculated value i.e. 138.9375. Hence, the hypothesis i.e. there is no significant effect of Class Room Contribution/Traditional Method in Improving the Writing Skills is rejected and the hypothesis i.e. there is significant effect of Class Room Contribution/Traditional Method in Improving the Writing Skills is accepted.

Developing Engagement level

H0: There is no significant effect of Class Room Contribution/Traditional Method in developing engagement level

H1: There is a significant effect of Class Room Contribution/Traditional Method in developing engagement level

Table 5.33 Developing the Engagement Level

Fo	Fe	(Fo-Fe)	(Fo-Fe) ²	(Fo-Fe) ² /Fe
95	102.4	-7.4	54.76	0.534766
53	102.4	-49.4	2440.36	23.83164
194	102.4	91.6	8390.56	81.93906
30	102.4	-72.4	5241.76	51.18906
140	102.4	37.6	1413.76	13.80625
512	512			
				171.3008

Source: Computed data

Table 5.40 shows that at 5% of significance level and with 1 degree of freedom the table value is 3.841 which is less than the calculated value i.e. 171.3008. Hence, the hypothesis i.e. there is no significant effect of Class Room Contribution/Traditional Method in developing engagement level is rejected and the hypothesis i.e. there is a significant effect of Class Room Contribution/Traditional Method in developing engagement level is accepted.

Developing Convenience in learning

H0: There is no significant effect of Class Room Contribution/Traditional Method in Developing Convenience in learning

H1: There is a significant effect of Class Room Contribution/Traditional Method in Developing Convenience in learning

Table 5.34 Developing Convenience

Fo	Fe	(Fo-Fe)	(Fo-Fe) ²	(Fo-Fe) ² /Fe
88	102.4	-14.4	207.36	2.025
58	102.4	-44.4	1971.36	19.25156
165	102.4	62.6	3918.76	38.26914
28	102.4	-74.4	5535.36	54.05625
173	102.4	70.6	4984.36	48.67539
512	512			
				162.2773

Source: Computed data

It has been found from table 5.41 that at 5% of significance level and with 1 degree of freedom the table value is 3.841 which is less than the calculated value.i.e. 162.2773. Hence, the hypothesis i.e. there is no significant effect of Class Room Contribution/Traditional Method in Developing Convenience in learning is rejected and the hypothesis i.e. there is a significant effect of Class Room Contribution/Traditional Method in Developing Convenience in learning is accepted.

Developing Overall Satisfaction among the respondents

H0: There is no significant effect of Class Room Contribution/Traditional Method in Developing Overall Satisfaction among the respondents

H1: There is a significant effect of Class Room Contribution/Traditional Method in Developing Overall Satisfaction among the respondents

Table 5.35 Developing Overall Satisfaction among the respondents

Fo	Fe	(Fo-Fe)	(Fo-Fe) ²	(Fo-Fe) ² /Fe
88	102.4	-14.4	207.36	2.025
58	102.4	-44.4	1971.36	19.25156
158	102.4	55.6	3091.36	30.18906
39	102.4	-63.4	4019.56	39.25352
169	102.4	66.6	4435.56	43.31602
512	512			
				134.0352

Source: Computed data

Table 5.42 has found that at 5% of significance level and with 1 degree of freedom the table value is 3.841 which is less than the calculated value i.e. 134.0352. Hence, the hypothesis i.e. there is no significant effect of Class Room Contribution/Traditional Method in Developing Overall Satisfaction among the respondents is rejected and the hypothesis i.e. there is a significant effect of Class Room Contribution/Traditional Method in Developing Overall Satisfaction among the respondents is accepted.

5.19 Rating of more preferable parameter by the respondent

Rating of Mobile assisted language learning Method in improving and developing skills, the following Table 5.43 explores more preferable parameter by the respondents.

Table 5.36 Rating of more preferable parameter by the respondent

	Easy of Learning		Content		Writing Skill		Engagement Level		Convenience		Overall Satisfaction	
	in %		in %		in %		in %		in %		in %	
Average	50	10	48	9	77	15	81	16	76	15	69	13
Best	34	7	45	9	41	8	44	9	46	9	42	8
Better	49	10	81	16	62	12	57	11	57	11	47	9
Excellent	272	53	267	52	257	50	254	50	263	51	316	62
Good	107	21	71	14	75	15	76	15	70	14	38	7
Grand Total	512	100	512	100	512	100	512	100	512	100	512	100

Source: Computed Data

It has been found from table 5.43 that 53% respondents have rated excellent that mobile assisted language learning contributes significantly in learning and 7% of the respondents rated it is best method. Analysing the development of content among the respondents, it has been found that 52 % of the respondents have rated excellent while 9% respondents have rated best and average contribution. Rating of engagement level shows that 50% of the respondents have rated excellent and developing convenience as well as overall Satisfaction among the respondents, 51% and 62% of the respondents have rated excellent.

5.20 Conclusion

In the recent time of technology has widened its exploration in education institute. The tutor of language teacher should be turn out to be techno savvy and should accept waves of technical knowledge in day to day teaching –learning processes. The survey of present chapter would become useful for future researchers as well as language teacher for deciding and framing mobile leaning activities in their regular classroom procedure. This chapter is written in the continuation of chapter 4. In chapter 4 , the findings on respondents' usage habits in terms of per day total time spend by the respondents in using mobile device, usage pattern of mobile device, general purpose of using, educational purpose of using mobile device and specific purpose of learning language and developing LSWR skills are elaborated. In chapter 5 ,the detail information about number of mobile application downloaded by users, number of language learning applications downloaded by users, Languages Preferred for exchanging text by the respondents, General purpose of using mobile device, specific purposes like education purpose, language learning purpose and LSRW skills development purpose, learning of LSRW skills through downloading various application, duration of learning through applications and the language preferred by the respondents while using the mobile device for the purpose of learning, how mobile device is useful in improving English language, and very interesting and detail comparison between tradition classroom situation and mobile learning situation have been explained. In order to achieve the objectives of the study, researcher has applied descriptive statistic i.e. mean, mode, median and frequency distribution and an inferential statistics tools such as frequency distribution, cross tabulation, Chi-square and factor analysis.

In short, result analysis of chapter 5 became the base for researcher for preparing LSRW activity module and also helpful to decide a type of activity and contents of LSRW activity module

CHAPTER-6

Evaluation of the effectiveness of mobile device in developing LSRW Skills of the students of selected Engineering colleges of Gujarat with the help of Edmodo.

6.1 Introduction

English Language teaching –learning process has been remained the most demandable and perusal research topic for each and every generation. The apparent reason is the taste and changing demand of each age group. For developing English language as per the age group, the chronology of LSRW skills has to be maintained. Listening, Reading and Writing are exposed to learners directly or indirectly either in the form of language exercises, drills or language activities. When there is a question to develop speaking skills, it has not been introduced compulsory as a part of syllabus as well as it has not been practiced by learner too. Most of the learners speak in their mother tongue. During the lecture of English subject the medium of instruction is mother tongue. In such scenario, learners as well as language teacher require such tool which has ability to create climate and inspiration to learner to learn English in better situation. The innovation and invention of technology prompt language teachers and learners to use mobile devices in their teaching-learning process. The use of technology has ultimately made teachers and learners as an effective communicator. Based on this, they started to use mobile devices in their classroom to enable students to converse in the target language.

Learners generally have a mindset that listening is very difficult because it is a receptive Skill and learners find intricacy while they are listening language in different pronunciation. The recipient needs to be highly concentrated in listening part. This can be

improved by creating trouble-free sounds of that particular language. This will develop the appropriate pronunciation of words and listener will find it easy to understand.

Speaking skills existed in the unusual place in history of language teaching and therefore it has been appeared as a branch of teaching, learning and testing since decades. There can be various reasons for this argument such as the immense persuade of conventional grammar translation methods in language teaching and use of tape-recorder has been practicing in classroom teaching since the mid 1970s. When a teacher or learner develops the speech production, it follows some procedure such as conceptualization, formulation, articulation, and self-monitoring. These progressions occur exceptionally hasty and the previous three are more or less mechanical. With the help of such procedures the speaking skill is remained unlearn and is unnoticed too. Speaking is give-and-take activity, people can react to each other and this activity becomes a responsible factor for developing speaking skill.

Reading skill is to learn. Reading skills grow the sound knowledge of grammar, vocabulary; correct spelling of the English words and language used for compact writing. Once the learner reads with concentration the brain imitates produces similar sentences to express the desired meaning. Reading skills facilitate the learner to seize the content and draw conclusions.

Writing skills helps the learners to integrate their grasp of vocabulary and facilitates to develop the writing in a structured manner. It assists the learner to understand the text and write compositions. Learner needs to focus on coherence and cohesiveness when it comes to writing a language.

Keeping in mind such dynamics of developing LSRW skills, the present chapter is devoted to analyze the result of pre-test, post-test and try-out LSRW activity module which was run on Edmodo platform. The result of each test claimed the effectiveness of mobile device in developing LSRW skills among respondents. In order to examine the effectiveness of learning language with the help of Edmodo, the chapter has been divided in to 2 (Two) sections.

The first section determines the effectiveness of learning language by applying paired 'T' test on the scores of the pre-test conducted before implementation of Edmodo and post test after completion of learning through Edmodo plate form. Paired 'T' test is aimed to find out the difference between the scores obtained in pre-test and post test.

The second section determines the effectiveness of learning language through the scores obtained from the tests conducted on uploaded modules of LSRW activities on Edmodo platform. This test was conducted between pre-test and post test.

With the help of Edmodo application, the researcher has done an experiment on 80 respondents selected from two engineering colleges' i.e. Shankersinh Vaghela Bapu Institute of Technology, Vasan, Gandhinagar, Gujarat Power Engineering & Research Institute, Mevad, Mehsana. Researcher has conducted pre-test before the implementation of this application and after the gap of 3 months once again the post test had been conducted. Data collected from pre-test and post test were analyzed by applying paired 'T' test to find out the effectiveness mobile device in learning of LSRW skills.

6.2 Conceptualization

6.2.1 Pre –test and Post-test

A pre-test and post-test is generally a quasi-experimental where target group is studied before and after the experimental treatment. This means, the researcher tests them before doing the experiment, then the researcher runs his or her experimental treatment, and then again the researcher tests them to see if there are any changes. The main intention of researcher is to observe the effectiveness of the experimental treatment. The subject matter and parameters of both the tests are same. It has been kept deliberately in order to check the progress of the target group in the particular area where they were lacking at the time of Pre-test.

6.2.2 Edmodo

Edmodo is a powerful, inexpensive and secure platform for creating educational learning network. It offers a simple way to teachers to create and manage an online classroom community. It also allows students to connect with their teacher and work with their classmates from anywhere and anytime. Edmodo is a free of charge application that can be easily downloaded from Google play store and other search engine. It had been designed by Jeff O'Hara and Nick Borg in 2008. It is very much secure learning platform for teachers, students, parents, schools, and district. It is mobile device friendly as well as one can download it on PC too. It is easily available at www.edmodo.com (Chada Kongcham,

2013). This application is identical with Face Book and Google Classroom but it is more safe and secure than Face Book and Google Classroom. Teacher can create classroom and can invite the students through class code which are generated on creating classroom. The invited students can join the Edmodo classroom by entering the class code. After joining the class, students can view and can submit the task given by teacher. The teacher can manage and control this virtual classroom. Teacher can assign task either as a link or can select task from the library option. This library option is free unlimited space provided to teacher who has created class room on Edmodo. Other options for sending assignments are mobile device gallery and mobile device storage. Through these options teacher can send Video, photographs and audio files. live camera option is also given through which one can be directly take photo and do video recording and the same can be uploaded too. The last option is drawing Sketch. Teacher can draw something and the same can be sent to students. In short, just like computer, one can perform all the activities on mobile device with help of this powerful and effective Edmodo application.

To keep the above effective functions of Edmodo application in mind and after evaluating many mobile leaning platforms, researcher has decided to keep Edmodo as a research tool for the present study. Another reason is three fundamental macro components of Edmodo Application. These are; a Learning Management System (LMS), a Learning Content Management System (LCMS) and a Set of Tools for allocating LSRW activities to students.

6.3 Edmodo classroom and Moodle Classroom

Edmodo is an online classroom platform but it is different from Google-classroom and Moodle. Edmodo as mobile friendly software and it was suggested by many researcher after making successful experiments on various features such as its usability, technology usage, connectivity, and accessibility on mobile devices. Uploaded Data of Edmodo are stored on cloud so the institute doesn't require extra expenditure and resources of maintaining the solution.

Moreover, Edmodo offers a library where teacher can store unlimited materials for uploading purpose. The most striking difference between Edmodo and Moodle classroom is its storage capacity. Maximum 2 to 5 GB contents can be stored on Moodle classroom while Edmodo offers unlimited storage capacity because it has cloud-hosted solution.

6.3.1 Edmodo and Google -Classroom.

Both Google Classroom and Edmodo are intended to help teacher's add-on tools to their classroom lessons. With the help of both platforms, teachers can create classroom, can instruct the students, and can make their class content systematic and can take updates of their students. Edmodo is Social learning platform for teachers, students and parents too. While Google classroom is leaning management solution which can be created with institute domain platform only.

Secondly Edmodo is more mobile friendly than Google Classroom. Some the features such as involvement of parents, storage library and similarity just like face book are not seen in Google classroom. Low internet bandwidth can operate Edmodo while this is not the case with the Google classroom.

6.4 Statistical tools applied for data analysis

For finding the difference between pre-test and post test, paired 't' test has been conducted for all LSRW activities. During the learning through Edmodo data analysis has been carried out with the help of cross tabulation and applied two way ANOVA

6.5 Objective

To justify the effectiveness of mobile assisted language learning in developing LSRW skills among the selected students of engineering colleges of Gujarat.

6.6 Methodology

To justify the stated objective, researcher has adopted an experiment method on randomly selected 80 (eighty) students from first year engineering. For the purpose of obtaining more accurate result, researcher has taken these 80 students from Shankersinh Vaghela Bapu Institute of Technology, Vasan (Gandhinagar) (40 Students) and Gujarat Power Engineering and research institute, Mevad (Mahesana) (40 Students) respectively. The LSRW activity module had been designed for developing Listening, Speaking, Reading, and writing skills among the selected respondents. The activities of LSRW activity module were prepared keeping in mind the first year engineering students at the centre and the type of English language and vocabularies they have been using in Engineering field. To check

the validity and reliability of the said module, the pilot study was conducted at the mother Institute “Shankersinh Vaghela Babu Institute of Technology in the month of January, 2019. The module has been reviewed by Supervisor and subject experts. After making revision and modification, the said module was uploaded on Edmodo platform. Before executing try-out of LSRW activity module on Edmodo Application, the pre-test was taken on 15th February, 2019 at Shankersinh Vaghela Babu Institute of Technology and at Gujarat Power Engineering and Research Institute on 18th February, 2019. From 26th February, 2019 to 26th May 2019, the LSRW activity module was uploaded on Edmodo application. Before that at the time of pre-test, students were taught how to download Edmodo application through general guideline. This guideline guided target audience regarding procedure of downloading Edmodo application and how it functions. The pre-test and the post-test were taken offline. The duration of LSRW activity module was 60 hours. At the regular interval of time, students were sent LSRW activities via Google-form link on Edmodo application. After the completion of LSWR activity module, on 27th and 28th May, 2019 the post-test was taken on the same subject matter at Shankersinh Vaghela Babu Institute of Technology and Gujarat Power Engineering and Research institute respectively.

In short this study was conducted in three phases:

Phase 1 Pre-test

Phase 2 Try-out of LSRW activity module via Edmodo Application

Phase 3 Post-test

Section-I

6.7 Assessment Analysis of Pre-test and Post test conducted for determining the effectiveness of learning LSRW skills.

Section-I has provided the detailed analysis of the pre-test and post test conducted for randomly selected 80 respondents from SVBIT and GPERI colleges. The analysis has been done by applying paired‘t’ test and has found out the difference of score in the performances recorded at the time of pre-test and post-test.

6.7.1 Developing Listening Skills:

In order to analyze Pre and Post test, a rubric was made for evaluating performance of students. The different criteria for deciding Average, Good, Bette, Best and Competent were made. The source of these criteria is taken from the evaluation pattern of ILTS and SCOPE exam. The score from 1 to 5 marks was kept on the basis of these criteria. The subject matter of Pre and Post tests was same. With a view to check the basic knowledge of English language, 2 to 4 LSRW activities were prepared. For Listening activity two paragraphs were kept followed by multiple question-answers. The paragraphs were dictated and students were asked to write answers of multiple choice questions on the basis of their listening skills. For speaking activity, two dialogues were written and asked students to perform role play activities. They have been also asked to make audio recording on their mobile phone so that they could be able to check their accuracy and fluency in speaking skills. The recorded audio would also give them chance to improve their mistakes. In Reading skills two comprehensive reading paragraphs were given. The reading comprehension paragraphs of pre-test, multiple choice questions were asked but in reading comprehension paragraphs of post-test descriptive questions were asked. This minor change was kept deliberately. Because the post-test was taken after try-out of LSRW activity module through Edmodo application and the researcher intended to check improvement in sentence structure and logical skill of students. The writing skills were included three grammar fill-in gaps exercises and one easy type topic in which students were asked to write their view on given topic. The statistical result analysis of each skill of both pre and post tests are as under

Table 6.1 Mean Assessment Score of paired Samples Statistics of Pre and Post Test for developing Listening Skills

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Post Test Listening Skills	10.7375	80	1.89432	.21179
	Pre Test Listening Skills	7.7750	80	2.06830	.23124
	Change in Mean Score	2.9625			

Source: Computed Data

Table 6.1 explains the mean value of paired samples in case of pre and post test for finding out the effectiveness of Listening skills due to the use of mobile device. It has been found

from the paired sample statistics that the pre-test samples of Listening skills indicates the mean value 7.7750 and post test mean value 10.7375. The measurement for pre and post test had been taken at two different times between the gaps of 3 months. The finding from table 6.1 shows the positive difference in mean value between pre and post test conducted for Listening skills which indicates that using mobile device for developing listening skills have remained effective.

There was a significant average difference between Post and Pre scores ($t_{80} = 18.341$, $p < 0.001$). On average, Post scores were 2.962 points higher than Pre scores (95% CI [2.61, 3.28]). P Value is less than alpha ($\text{Alpha} = 0.05$). Hence, the hypothesis H_{03} that there is no significant impact of effectiveness of mobile device on developing Listening Skills of selected Engineering colleges of Gujarat is rejected and the hypothesis H_{13} that there is significant impact of effectiveness of mobile device on developing Listening Skills of selected Engineering colleges of Gujarat is accepted.

Table 6.2 Paired Samples Correlations of Pre and Post Test for developing Listening Skills

		N	Correlation	Sig.
Pair 1	Post & Pre Test Listening Skills	80	.738	_.000

Source: Computed Data

Table 6.2 evaluates that the Paired Samples Correlation table adds the information that pre and post scores are significantly positively correlated ($r = .738$). Post and Pre scores were strongly and positively correlated ($r = 0.738$, $p < 0.001$). The purpose to run a Paired t Test is to evaluate if the means of the two variables are significantly different, it's also important to consider how strongly the two variables are associated with one another, especially when the variables being compared are pre-test/post-test measures. Paired Samples Correlations in the said study shows the vicariate Pearson correlation coefficient (with a two-tailed test of significance) for each pair of variables entered.

Table 6.3 Paired Samples Tests of Pre and Post Test for developing Listening Skills

		Paired Differences								
		Mean	Std.Deviation	Std.Error Mean	95% Confidence Interval of Difference		t	df	sig. (2-tailed)	
					Lower	Upper				
Pair 1	Pre/Post Listening Skills	2.96250	1.44471	-16152	2.64100	3.28400	18.341		79	-.000

Source: Computed Data

Table 6.3 examines the pre and post listening skills paired sample test. The Mean in the table 6.3 shows the average difference between the two variables. The pre and post listening skills samples paired differences mean value increases to 2.96250 in post test which indicates a strong relation between pre and post test. Standard deviation shows the standard deviation of the difference scores. The sample standard deviation is the square root of the sample variance. It is a measure of spread. The Standard error mean shows the standard error (standard deviation divided by the square root of the sample size). Used in computing both the test statistic and the upper and lower bounds of the confidence interval that is 0. 16152.

Confidence Interval Lower Limit i.e. 2.64100 is the lower limit of an interval estimate of the mean based on a Student's t distribution with n -1 degrees of freedom. This interval estimate assumes that the population standard deviation is not known and that the data are normally distributed. Confidence Interval Upper Limit i.e. 3.28400 is the upper limit of the interval estimate for the mean based on a t distribution with n -1 degrees of freedom. Sig. (2-tailed) is the p-value corresponding to the given test statistic t with degrees of freedom.

The analysis of data through paired t test examines effectiveness of listening skills in surveyed samples. The increased mean value of 2.96250 in the post test points out the positive and strong correlation in developing Listening skills through mobile device. Hence, the hypothesis H_{03} that there is no significant impact of effectiveness of mobile device on developing Listening Skills of selected Engineering colleges of Gujarat is rejected and the hypothesis H_{13} that there is significant impact of effectiveness of mobile

device on developing Listening Skills of selected Engineering colleges of Gujarat is accepted.

6.7.2 Developing Speaking Skills:

Speaking is a tool for communication. Learners communicate with others, to express their ideas as well as others' ideas too. Generally in schools and colleges elocution and recitation are organized with a view to judge confidence, sounds, rhythms, and intonation of the English language through simple reproduction. Speaking skills can be developed by understanding para-linguistic attributes such as voice quality, volume and tone, voice modulation, articulation, pronunciation etc. This could also be further enhanced with the help of debates and discussions. The present study has covered the use of mobile device in assessing the mobile device's effectiveness on developing speaking skills in the following manner.

Table 6.4 Mean Assessment Score of paired Samples Statistics of Pre and Post Test for Developing Speaking Skills

		Mean	N	Std.Deviation	Std.Error Mean
Pair 1	Post Test Speaking Skills	10.4375	80	1.55770	.17416
	Pre Test Speaking Skills	7.8375	80	1.76064	.19685
	Change in Mean Score	2.6000	80		

Source: Computed Data

Table 6.4 depicts the mean assessment score of paired samples in case of pre and post test for examining the effectiveness of speaking skills due to the use of mobile device. It has been found from the paired sample statistics that the pre-test samples of speaking skills indicates the mean value 7.8375 and post test mean value 10.4375. Paired Samples Statistics here gives the univariate descriptive statistics (mean, sample size, standard deviation, and standard error) for each variable entered. The measurement for pre and post test had been taken at two different times between the gaps of 3 months. This Paired Samples t Test is a parametric test and the purpose of applying the test was to determine whether there is statistical evidence that the mean difference between paired observations on a particular outcome is significantly different from zero. The assessment from table 6.4 shows the positive difference in mean value between pre and post test conducted for

speaking skills which describes that using mobile device for developing speaking skills have remained effective.

There was a significant average difference between Post and Pre-scores ($t_{80} = 20.547$, $p < 0.001$). On average, Post scores were 2.600 points higher than Pre-scores (95% CI [2.34, 2.85]). P Value is less than alpha ($\text{Alpha} = 0.05$). Hence, the hypothesis H_{04} that there is no significant impact of effectiveness of mobile device on developing speaking Skills of selected Engineering colleges of Gujarat is rejected and the hypothesis H_{14} that there is significant impact of effectiveness of mobile device on developing speaking Skills of selected Engineering colleges of Gujarat is accepted.

Table 6.5 Paired Samples Correlations of Pre and Post Test for developing Speaking Skills

		N	Correlation	Sig.
Pair 1	Post & Pre Test -Speaking Skills	80	.774	.000

Source: Computed Data

Table 6.5 finds out that the Paired Samples Correlation table adds the information that pre and post scores are significantly positively correlated ($r = .774$). Post and Pre scores were strongly and positively correlated ($r = 0.774$, $p < 0.001$). The purpose to run a Paired t Test is to evaluate if the means of the two variables are significantly different, it's also important to consider how strongly the two variables are associated with one another, especially when the variables being compared are pre-test/post-test measures. Paired Samples Correlations in the said study shows the vicariate Pearson correlation coefficient (with a two-tailed test of significance) for each pair of variables entered.

Table 6.6 Paired Samples Tests of Pre and Post Test for developing Speaking Skills

		Paired Differences							
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of Difference		t	df	sig. (2-tailed)
					Lower	Upper			
Pair 1	Pre/Post Speaking Skills	2.6000	1.13182	.12654	2.34813	2.85187	2.85187	79	.000

Source: Computed Data

Table 6.6 examines the pre and post speaking skills status of respondents through paired sample test. The Mean in the table 6.6 shows the average difference between the two variables. The pre and post speaking skills samples paired differences mean value increases to 2.6 in post test which indicates a strong relation between pre and post test. Standard deviation shows the standard deviation of the difference scores. The sample standard deviation is the square root of the sample variance. It is a measure of spread. The Standard error mean shows the standard error (standard deviation divided by the square root of the sample size). Used in computing both the test statistic and the upper and lower bounds of the confidence interval that is 0.12654. Confidence Interval Lower Limit i.e. 2.34813 is the lower limit of an interval estimate of the mean based on a Student's t distribution with n -1 degrees of freedom.

This interval estimate assumes that the population standard deviation is not known and that the data are normally distributed. Confidence Interval Upper Limit i.e. 2.85187 is the upper limit of the interval estimate for the mean based on a t distribution with n -1 degrees of freedom. Sig. (2-tailed) is the p-value corresponding to the given test statistic t with degrees of freedom. The increased mean value of 2.6 in the post test indicates the positive and strong correlation in developing speaking skills through mobile device. Hence, the hypothesis H_{04} that there is no significant impact of effectiveness of mobile device on developing Speaking Skills of selected Engineering colleges of Gujarat is rejected and the hypothesis H_{14} that there is significant impact of effectiveness of mobile device on developing Speaking Skills of selected Engineering colleges of Gujarat is accepted

6.7.3 Developing Reading Skills:

Reading skills lead a person to interact and gain meaning from written language. There are several components one must master which lead to independently comprehending the intended message being relayed in the written content. Reading skills plays a key role in developing and exploring innovative mind of learners. In the present study, with the help of Edmodo application, the collected data were analysed by running paired t test and the findings were developed as under

Table 6.7 Mean Assessment Score of paired Samples Statistics of Pre and Post Test for Developing Reading Skills.

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Post Test Reading Skills	10.6250	80	1.68669	.18858
	Pre Test Reading Skills	7.7250	80	1.68369	.18824
	Change in Mean Score	2.9000	80	-	-

Source: Computed Data

Table 6.7 describes the mean value of paired samples in case of pre and post test for finding out the effectiveness of reading skills due to the use of mobile device. It has been found from the paired sample statistics that the pre-test samples of reading skills indicates the mean value 7.7250 and post test mean value 10.6250. Paired Samples Statistics here gives the univariate descriptive statistics (mean, sample size, standard deviation, and standard error) for each variable entered. The measurement for pre and post test had been taken at two different times between the gaps of 3 months. This Paired Samples t Test is a parametric test and the purpose of applying the test was to determine whether there is statistical evidence that the mean difference between paired observations on a particular outcome is significantly different from zero.

The finding from table 6.7 shows the positive difference in mean value between pre and post test conducted for reading skills which explains that using mobile device for developing reading skills have remained effective. There was a significant average difference between Post and Pre scores ($t_{80} = 27.714$, $p < 0.001$). On average, Post scores were 2.900 points higher than Pre scores (95% CI [2.69, 3.10]). P Value is less than alpha (Alpha=0.05). Hence, the hypothesis H_{02} that there is no significant impact of effectiveness of mobile device on developing Reading Skills of selected Engineering colleges of Gujarat is rejected and the hypothesis H_{12} that there is significant impact of effectiveness of mobile device on developing Reading Skills of selected Engineering colleges of Gujarat is accepted.

Table 6.8 Paired Samples Correlations of Pre and Post Test for developing Reading Skills

		N	Correlation	Sig.
Pair 1	Post & Pre Test Reading Skills	80	.846	.000

Source: Computed Data

Table 6.8 reveals that the Paired Samples Correlation table adds the information that pre and post scores are significantly positively correlated ($r = .846$). Post and Pre scores were strongly and positively correlated ($r = 0.846$, $p < 0.001$). The purpose to run a Paired t Test is to evaluate if the means of the two variables are significantly different, it's also important to consider how strongly the two variables are associated with one another, especially when the variables being compared are pre-test/post-test measures. Paired Samples Correlations in the said study shows the vicariate Pearson correlation coefficient (with a two-tailed test of significance) for each pair of variables entered

Table 6.9 Paired Samples Tests of Pre and Post Test for developing Reading Skills

		Paired Differences								
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)	
					Lower	Upper				
Pair 1	Pre/ Post Reading Skills	2.90000	.93592	.10464	2.69172	3.10828	27.714	79	.000	

Source: Computed Data

Table 6.9 indicates the examination of pre and post reading skills paired sample test. The Mean in the table 6.9 shows the average difference between the two variables. The pre and post reading skills samples paired differences mean value increases to 2.9 in post test which indicates a strong relation between pre and post test. Standard deviation shows the standard deviation of the difference scores. The sample standard deviation is the square root of the sample variance. It is a measure of spread. The Standard error mean shows the

standard error (standard deviation divided by the square root of the sample size). Used in computing both the test statistic and the upper and lower bounds of the confidence interval that is 0.10464.

Confidence Interval Lower Limit i.e. 2.69172 is the lower limit of an interval estimate of the mean based on a Student's t distribution with $n - 1$ degrees of freedom. This interval estimate assumes that the population standard deviation is not known and that the data are normally distributed. Confidence Interval Upper Limit i.e. 3.10828 is the upper limit of the interval estimate for the mean based on a t distribution with $n - 1$ degrees of freedom. Sig. (2-tailed) is the p -value corresponding to the given test statistic t with degrees of freedom.

The analysis of data through paired t test examines effectiveness of reading skills in surveyed samples. The increased mean value of 2.9 in the post test points out the positive and strong correlation in developing reading skills through mobile device. Hence, the hypothesis H_{02} that there is no significant impact of effectiveness of mobile device on developing Reading Skills of selected Engineering colleges of Gujarat is rejected and the hypothesis H_{12} that there is significant impact of effectiveness of mobile device on developing Reading Skills of selected Engineering colleges of Gujarat is accepted.

6.7.4 Developing Writing Skills:

Writing skills are key to develop the abilities of learners to integrate their ideas, thoughts and the acquired information in a compact presentable manner so that the reader can be acquainted with the actual matter that writer wishes to convey. In the era of technological advancement, it is now the prime goal of educational institutes to integrate the latest technology in their day to day teaching processes. It is strongly believed that mobile technologies can definitely help the teaching and learning process in the educational institutes. These devices have many features that motivate learners and educators to use applications, especially due to its mobility, accessibility and privacy. Due to these entire features it provides the opportunity to learner for learning at his own.

Apart from this fact, mobile device also creates an interactive classroom by connecting through internet. Because of all such factors and many others, mobile learning is gaining popularity everywhere, even in developing countries. When used to teach writing, MALL has many features that are useful in the classroom and provides convenience to learners to write anytime—either inside or outside of the classroom. MALL also widens the

opportunity for learners to interact with peers and educator via written text messages on different social applications.

Table 6.10 Mean Assessment Score of paired Samples Statistics of Pre and Post Test for Developing Writing Skills

		Mean	N	Std.Deviation	Std.Error Mean
Pair 1	Post Test Writing Skills	11.4375	80	1.38567	.15492
	Pre Test Writing Skills	7.7750	80	2.06830	.23124
	Change in Mean Score	3.6625	80	-	-

Source: Computed Data

Table 6.10 finds out the mean assessment score of paired samples in case of pre and post test for examining the effectiveness of writing skills due to the use of mobile device. It has been found from the paired sample statistics that the pre-test samples of writing skills indicates the mean value 7.7750 and post test mean value 11.4375. Paired Samples Statistics here gives the univariate descriptive statistics (mean, sample size, standard deviation, and standard error) for each variable entered. The measurement for pre and post test had been taken at two different times between the gaps of 3 months. This Paired Samples t Test is a parametric test and the purpose of applying the test was to determine whether there is statistical evidence that the mean difference between paired observations on a particular outcome is significantly different from zero.

The assessment from table 6.10 shows the positive difference in mean value between pre and post test conducted for writing skills which describes that using mobile device for developing writing skills have remained effective. There was a significant average difference between Post and Pre scores ($t_{80} = 13.607, p < 0.001$). On average, Post scores were 3.662 points higher than Pre scores (95% CI [3.12, 4.19]). P Value is less than alpha (Alpha=0.05). Hence, the hypothesis H_{05} that there is no significant impact of effectiveness of mobile device on developing writing Skills of selected Engineering colleges of Gujarat is rejected and the hypothesis H_{15} that there is significant impact of effectiveness of mobile device on developing writing Skills of selected Engineering colleges of Gujarat is accepted.

Table 6.11 Paired Samples Correlations of Pre and Post Test for developing Writing Skills

		N	Correlation	Sig.
Pair 1	Post & Pre-test-Writing Skills	80	.070	.537

Source: Computed Data

Table 6.11 finds out that the Paired Samples Correlation table adds the information that pre and post scores are significantly positively correlated ($r = .070$). Post and Pre scores were weakly and positively correlated ($r = 0.070$, $p < 0.537$). The purpose to run a Paired t Test is to evaluate if the means of the two variables are significantly different, it's also important to consider how strongly the two variables are associated with one another, especially when the variables being compared are pre-test/post-test measures. Paired Samples Correlations in the said study shows the vicariate Pearson correlation coefficient (with a two-tailed test of significance) for each pair of variables entered.

Table 6.12 Paired Samples Tests of Pre and Post Test for developing Writing Skills

		Paired Differences								
		Mean	Std.Deviation	Std.Error Mean	95% Confidence Interval of Difference		t	df	sig. (2-tailed)	
					Lower	Upper				
P a i r 1	Pre - Post Writin g Skills	3.66250	2.40750	_.26917	3.12674	4.19826	13.607		79	.000

Source: Computed Data

Table 6.12 evaluates the pre and post writing skills status of respondents through paired sample test. The Mean in the table 6.12 indicates the average difference between the two variables. The pre and post writing skills samples paired differences mean value increases to 3.6625 in post test which shows a strong relation between pre and post test. Standard

deviation shows the standard deviation of the difference scores. The sample standard deviation is the square root of the sample variance. It is a measure of spread. The Standard error mean shows the standard error (standard deviation divided by the square root of the sample size). Used in computing both the test statistic and the upper and lower bounds of the confidence interval that is 4.19826 Confidence Interval Lower Limit i.e. 3.12674 is the lower limit of an interval estimate of the mean based on a Student's t distribution with n -1 degrees of freedom.

This interval estimate assumes that the population standard deviation is not known and that the data are normally distributed. Confidence Interval Upper Limit i.e. 4.19826 is the upper limit of the interval estimate for the mean based on a t distribution with n -1 degrees of freedom. Sig. (2-tailed) is the p-value corresponding to the given test statistic t with degrees of freedom. The increased mean value of 3.6625 in the post test indicates the positive and strong correlation in developing writing skills through mobile device. Hence, the hypothesis H_{045} that there is no significant impact of effectiveness of mobile device on developing writing skills of selected Engineering colleges of Gujarat is rejected and the hypothesis H_{145} that there is significant impact of effectiveness of mobile device on developing writing skills of selected Engineering colleges of Gujarat is accepted

Section-II

6.8 Assessment Analysis of LSRW activities uploaded on Edmodo.

Section-I has measured the effectiveness and improvement in learning through the analysis of assessment score before and after the activities uploaded on Edmodo in form of pre-test and post-test.

Section-II has provided the assessment analysis of the LSRW activities uploaded on the Edmodo. Various activities modules were uploaded on the Edmodo after the assessment of pre-test. Randomly selected 80 respondents from SVBIT and GPERI colleges were asked to practice the same and during their practice activities assessments were conducted so that the effectiveness of implemented activities can be examined and inferences can be drawn. Hence, the section-II of the assessment analyses has made the analyses of activities assessment.

Process

Soon after the pre-test, 80 randomly selected students from Shankersinh Vaghela Bapu Institute of Technology and Gujarat Power Engineering and Research Institute were asked to download the Edmodo Application. Before that they have been taught each and every function of Edmodo Application. These functions were taught by circulating Guidelines (see Annexure.) as well as class presentation. For the preparation of LSRW activities LSRW module of IELTS exam, SCOPE and other Competitive exams were rigorously referred. Keeping in mind the basic knowledge of first year engineering students and Screen of mobile device, researcher had decided to keep multiple choice question-answers. Each activity consists of three to ten multiple choice question-answers. For the purpose of accumulating result at one platform and getting accuracy in result, the researcher has prepared all the activities with the help of Google Form. The link of the same has been uploaded at the regular interval of time to respondents. Each respondent's assessment had been done and score sheet was prepared. The data has been analyzed with the help of frequency distribution, cross tabulation analysis and ANOVA statistic. The section-II has been divided in three parts:

1. **Assessment Analysis of LSRW Activities through Cross tabulations**
2. **Assessment Analysis of LSRW Activities through ANOVA**

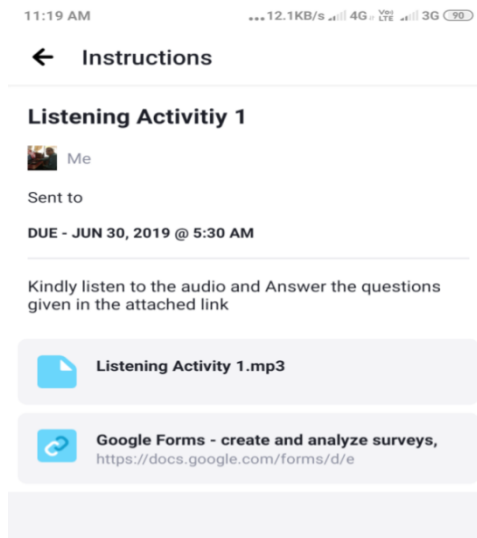
Part 1 Assessment Analysis of LSRW Activities through Cross tabulations supported with Screen shots of response

6.8.1 Listening Activities

In order to investigate the effectiveness of learning LSWR activities run through Edmodo, for listening activities, five situational dialogues were written and got it recorded. The audio file in MP 3 format was uploaded along with the multiple-choice questions and answers. Each activity was given number such as Listening activity 1, Listening activity 2, Listening activity 3, Listening activity 4 and Listening activity 5. The respondents have listened to each audio file and responded answers in the link of Goggle form. All respondents had responded three multiple question-answer in the Google form for which the link sent in the form of exercise. The positive responses of all respondents have indicated that they were interested in learning English in such different platform.

Chart 1. The screen shot of Listening activities.

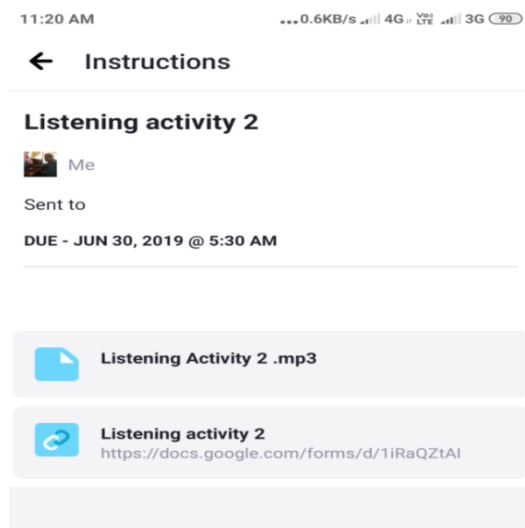
Image 6.1 Listening Activity 1



Source: Screen Shot from Mobile Device

Image 1 of the screen shot, Listening activity 1 shows the uploaded Listening activity 1 recorded with MP3 in Google form and uploaded on Edmodo. Responses given by the respondents have been analyzed in table 6.13 and inferences were derived.

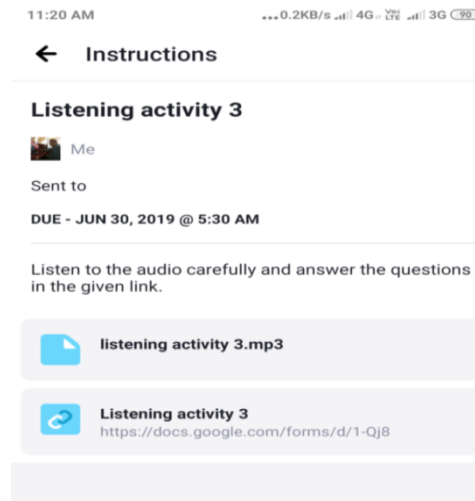
Image 6.2. Listening Activity 2



Source: Screen Shot from Mobile Device

Image 2 of the screen shot , Listening activity 2 shows the uploaded Listening activity 2 recorded with MP3 in Google form and uploaded on Edmodo. Responses given by the respondents have been analyzed in table 6.13 and inference was derived.

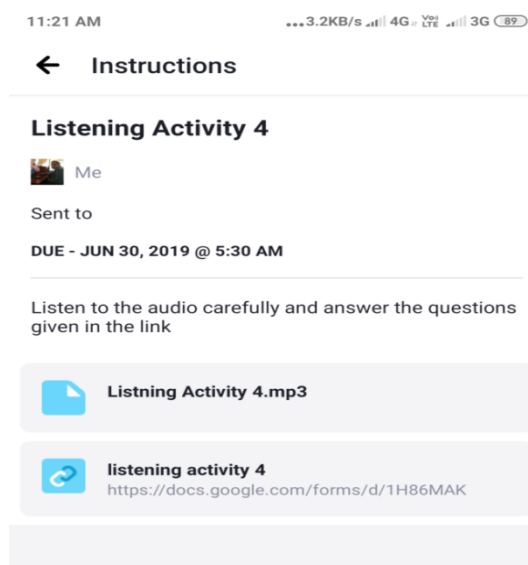
Image 6.3 Listening Activity 3



Source: Screen Shot from Mobile Device

Image 3of the screen shot, Listening activity 3 shows the uploaded Listening activity 3 recorded with MP3 in Google form and uploaded on Edmodo. Responses given by the respondents have been analyzed in table 6.13 and inference was derived.

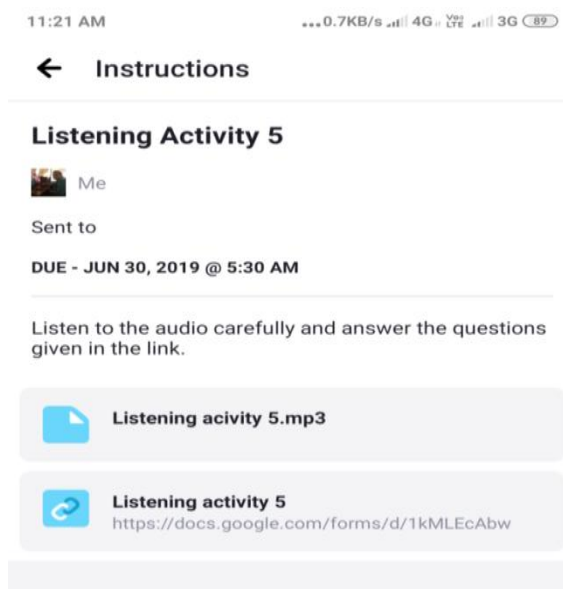
Image 6.4 Listening Activity 4



Source: Screen Shot from Mobile Device

Image 4 of the screen shot ,Listening activity 4 shows the uploaded Listening activity 4 recorded with MP3 in Google form and uploaded on Edmodo. Responses given by the respondents have been analyzed in table 6.13 and inferences were derived.

Image 6.5 Listening Activity 5



Source: Screen Shot from Mobile Device

Image 5 The screen shot of Listening activity 5 shows the uploaded Listening activity 5 recorded with MP3 in Google form and uploaded on Edmodo. Responses given by the respondents have been analyzed in table 6.13 and inference was derived.

Table 6.13 Listening Assessment Score of Male and Female Respondents

Marks Obtained (Out of 16)	Female		Male		Total	
	No of Respondents	In %	No of Respondents	In %	No of Respondents	In %
10	0	0.00%	2	3.30%	2	2.50%
11	1	5.00%	9	15.00%	10	12.50%
12	5	25.00%	11	18.30%	16	20.00%
13	6	30.00%	15	25.00%	21	26.30%
14	2	10.00%	14	23.30%	16	20.00%
15	6	30.00%	8	13.30%	14	17.50%
16	0	00.00%	1	1.70%	1	1.30%
Total	20	100.00%	60	100.00%	80	100.00%

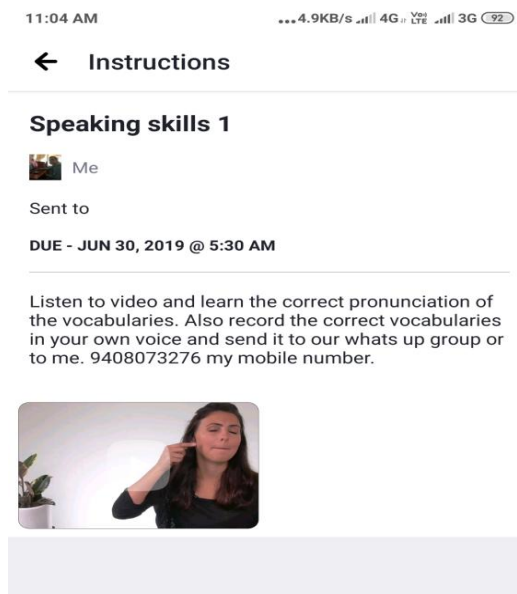
Source: Computed data

The above table 6.13 describes the Listening activity assessment score of 80 respondents from five different activities carried out on Edmodo platform of mobile device. These activities had been carried out by 60 male respondents and 20 female respondents. The analysis of cross tabulation of 60 male respondents and 20 female respondents have signified from table 6.13 that the assessment score that all out of total 60 male respondents, 50 respondents i.e. 80% have scored between 12 to 15 while 1 respondent also secured 16 marks out of 16. Such analysis indicates the effectiveness of mobile device in developing Listening skills. The similar scene has been also found in case of female respondents that 85% of the respondents have scored between 12 to 15 marks means they have obtained 30% to 35% score which has indicated that there is a high effectiveness of learning through Edmodo application.

6.8.2 Speaking Activities

The assessment for determining effectiveness of speaking skills, the language fluency level has been considered as one of the parameters at the time of pre-test. Two different videos downloaded from You-tube were up downloaded and later on uploaded on Edmodo which were practiced by the respondents. The first video was regarding imitation practice where respondents were to follow the instructions given by the speaker. The second video was on developing vocabulary where respondents suppose to learn 10 correct pronunciations which are frequently used in routine. In order to collect response at one platform and to make the activity more easy and interesting, researcher has adopted the blinded leaning techniques by uploading both the videos in regular interval of time and respondents were asked to record audio file in their voice and the same was instructed to send on the WhatsApp group which was created for instruction purpose. The screen shot of activities and WhatsApp group are as under:

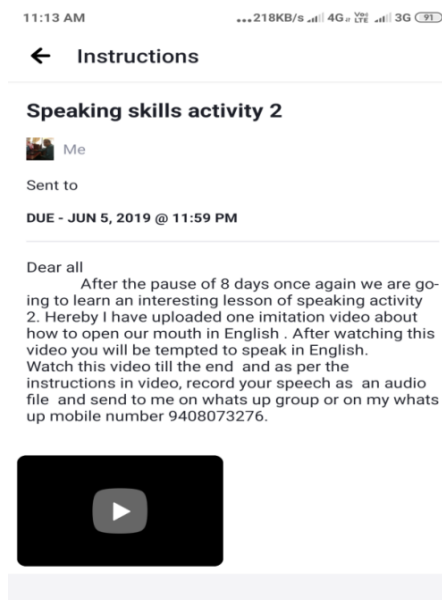
Image 6.6 SpeakingActivity 1



Source: Screen Shot from Mobile Device

Image 6 of the Screenshot, speaking activity 1 indicates the uploaded speaking activity 1 uploaded on Edmodo

Image 6.7 SpeakingActivity 2



Source: Screen Shot from Mobile Devise

Image 7 of the screenshot, speaking activity 2 indicates the uploaded speaking activity 1 uploaded on Edmodo.

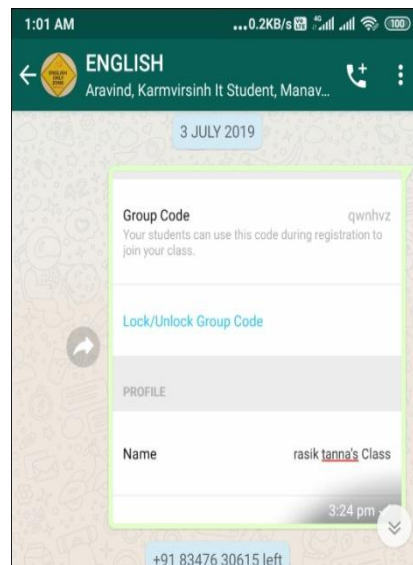
Images of received audio from respondents on WhatsApp



Source: Screen Shot from Mobile Device

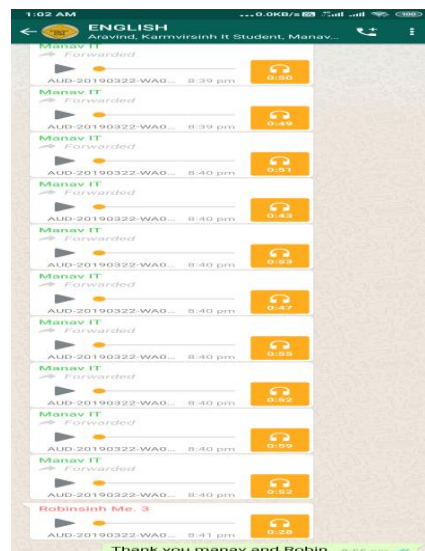
Image 7 indicates the responses received for speaking activities through WhatsApp.

Image 6.8.1 Images of received audio from respondents on WhatsApp



Source: Screen Shot from Mobile Device

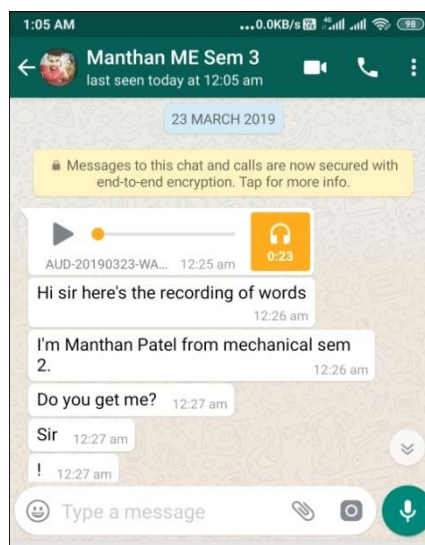
Image 6.8.2 Images of received audio from respondents on WhatsApp



Source: Screen Shot from Mobile Device

Image 8.2 indicates the responses received for speaking activities through WhatsApp.

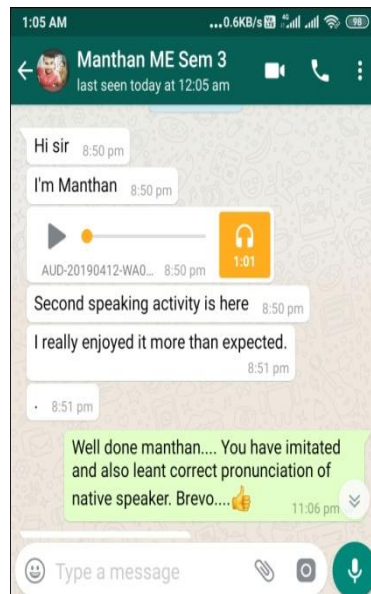
Image 6.8.3 Images of received audio from respondents on WhatsApp



Source: Screen Shot from Mobile Device

Image 8.3 indicates the responses received for speaking activities through WhatsApp.

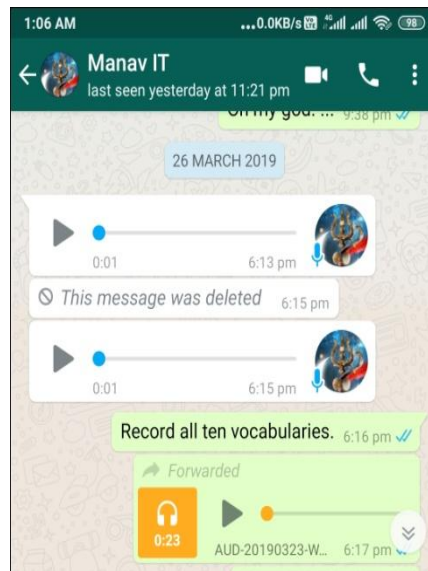
Image 6.8.4 Images of received audio from respondents on WhatsApp



Source: Screen Shot from Mobile Device

Image 8.4 indicates the responses received for speaking activities through WhatsApp

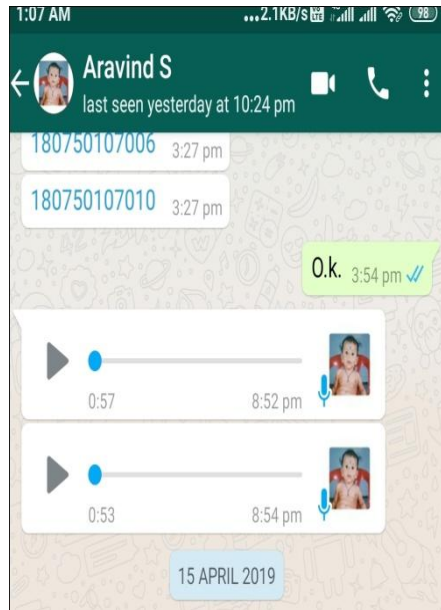
Image 6.8.5 Images of received audio from respondents on WhatsApp



Source: Screen Shot from Mobile Device

Image 8.5 indicates the responses received for speaking activities through WhatsApp

Image 6.8.6 Images of received audio from respondents on WhatsApp



Source: Screen Shot from Mobile Device

Image 8.6 indicates the responses received for speaking activities through WhatsApp.

Table No.6.14 Speaking Skill Assessment Score of male and female respondents

Out of 30 Marks obtained	Female		Male		Total	
	No of Respondents	In %	No of Respondents	In %	No of Respondents	In %
10	2	10.00%	5	8.00%	07	8.75%
12	5	25.00%	10	17.00%	15	18.75%
15	2	10.00%	12	20.00%	14	17.50%
18	3	15.00%	15	25.00%	18	22.50%
20	5	25.00%	10	17.00%	15	18.75%
25	3	15.00%	08	13.00%	11	13.75%
Total	20	100.00%	60	100.00%	80	100.00%

Source: Computed data

The above table 6.14 expresses the Speaking activity assessment score of 80 respondents from two different inspiring videos of imitation techniques which was uploaded on YouTube by Emma, the Founder of mmmEnglish channel and these videos were on Edmodo platform of mobile device. These activities had been carried out by 60 male respondents and 20 female respondents. In order to carry out the Speaking activity,

researcher has adopted the blended learning method. The Videos were uploaded on Edmodo application and learners were asked to imitate the same and prepare the audio of their own voice. Researcher has also created a WhatsApp group and asked learners to send the recorded audios on this group.

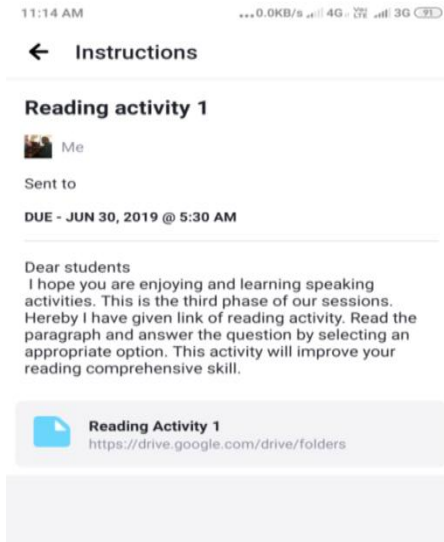
After receiving audios from WhatsApp group, researcher has evaluated the performance of each learner through Rubric which was prepared at the time of pre-test. Observing above mentioned data in the table 2 female respondents received 10 marks, 5 female respondents got 12 marks, 2 female respondents got 15 marks, 3 female respondents got 18 marks, 5 female respondents received 20 marks and 3 female respondents received 25 marks out of 30. In the case of male respondents 7 male respondents received 10 marks, 15 male respondents got 12 marks, 14 male respondents got 15 marks, 18 male respondents got 18 marks, 15 male respondents received 20 marks and one 11 male respondents received 25 marks out of 30.

Above data indicate that use of mobile device for speaking purpose is effective because on an average most of the respondents received more than 16 marks out of 30 marks. The second objective of the present study i.e. “to check effectiveness of mobile device in developing speaking skills among selected students of selected engineering colleges of Gujarat” has been proved. The hypothesis H12 i.e. “There is significant impact of effectiveness of mobile device on developing speaking Skills of selected Engineering colleges of Gujarat” is accepted and null hypothesis H02 i.e. “There is no significant impact of effectiveness of mobile device on developing Speaking Skills of selected Engineering colleges of Gujarat” is rejected.

6.8.3 Reading Activities

Different comprehensions for Reading activity-1 and Reading activity-2 were sent to each respondent through Edmodo application in the form of Google form. The source of these comprehensions paragraphs is from “Learn English, British Council website”. Respondents had received both the activities through Link 1 and Link 2 and responses for 8 multiple choice questions were generated from each respondent. They were asked to read the comprehensions and put tick mark on the correct as well as incorrect option of multiple-choice questions.

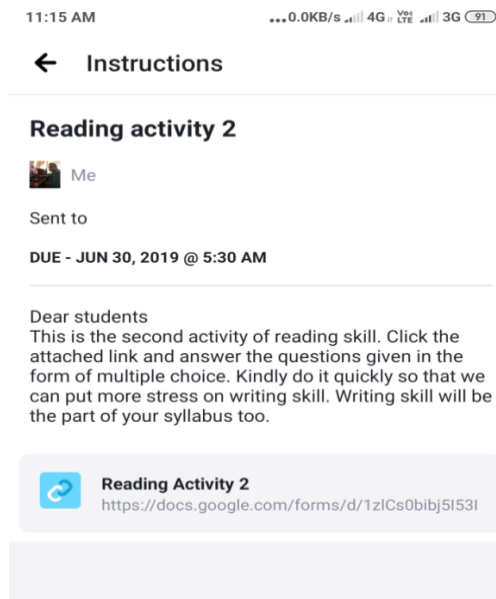
Image 6.9 The Screen Shot of Reading Activity-1



Source: Screen Shot from Mobile Device

Image 9 indicates the responses received for Reading activity-1

Image 6.10 The Screen Shot of Reading Activity-2



Source: Screen Shot from Mobile Device

Image 10 indicates the responses received for Reading activity-2

Table 6.15 Reading Assessment Score of respondents

	Marks Obtained (Out of 08)								Total	
	5(62.5%)		6(75 %)		7(87.5%)		8(100%)			
Gender	No. of Respondents	% of Respondents	No. of Respondents	% of Respondents	No. of Respondents	% of Respondents	No. of Respondents	% of Respondents	No. of Respondents	% of Respondents
Male	1	1.70%	7	11.70%	23	38.30%	29	48.30%	60	75.00%
Female	1	5.00%	3	15.00%	9	45.00%	7	35.00%	20	25.00%
Total	2	2.50%	10	12.50%	32	40.00%	36	45.00%	80	100.00%

Source: Computed data

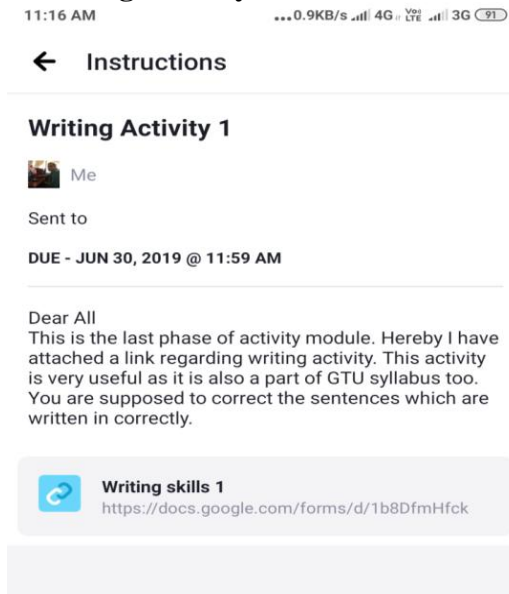
It has been found from Table 6.14 that out of 60 male respondents, 7 i.e. 11.7% respondents have scored 75% whereas, 23 i.e. 38.30% respondents have scored 87.5% and 29 i.e. 48.30 % of the respondents have scored 100%. The analysis has indicated that Total 98.30% respondents have scored from 75% to 100%, which has interpreted that there is a significant effectiveness in developing reading skills through Edmodo.

Results in case of female respondents found that 95 % of the total respondents have score from 75% to 100% marks and only 5% of the respondents have scored below 75%. Such analysis indicates that developing reading skill through Edmodo application is highly effective and positive.

6.8.4 Writing Activities

In the last phase of LSRW activity modules, five writing skills activities entitled as ‘Writing Activity 1, Writing Activity2, Writing Activity 3, Writing Activity 4 and Writing Activity 5 were uploaded on Edmodo In order to check the effectiveness of writing practice, the basic grammar skills, portable screen of mobile device and descriptive writing limit of mobile device has been taken in to consideration. Various topics such as Articles, Subject verb Agreement, Pronoun-noun Agreement, Proposition, Error analysis of Tense, misplaced modifiers and Redundancies are selected to prepare 10 sentences on each to float on the Edmodo. Some topics such as Noun-pronoun Agreement and Articles, Misplaced modifiers and preposition were clubbed as a one activity. Total 44 sentences of different topic in different activity head were given for practice to the respondents.

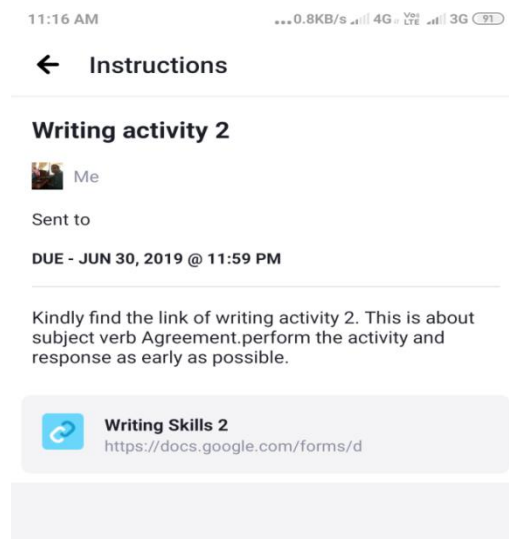
Image 6.11 Screen shot of writing Activity-1



Source: Screen Shot from Mobile Device

Image 11 indicates the responses received for writing activity-1

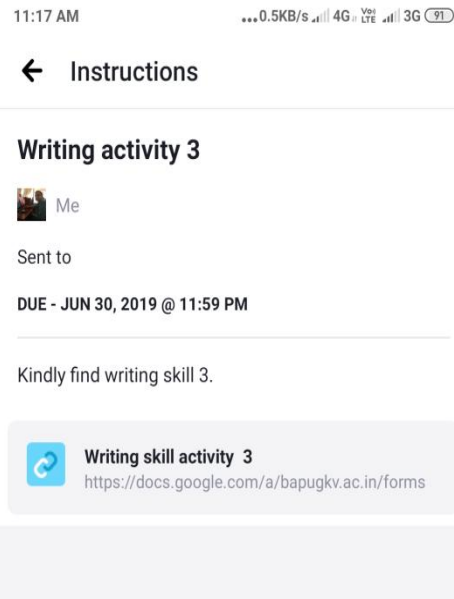
Image 6.12 Screen shot of Writing Activity-2



Source: Screen Shot from Mobile Device

Image 12 indicates the responses received for Writing activity-2

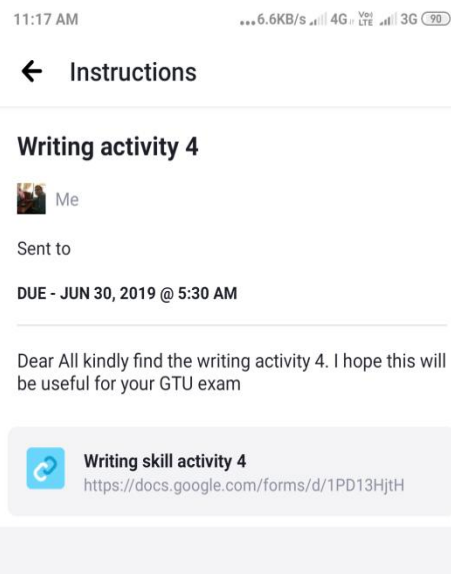
Image 6.13 Screen shot of writing Activity-3



Source: Screen Shot from Mobile Device

Image 13 indicates the responses received for Writing activity-3

Image 6.14 Screen shot of Writing Activity-4



Source: Screen Shot from Mobile Device

Image 14 indicates the responses received for Writing activity-3

Image 6.15 Screen shot of Writing Activity-5

← Instructions

Writing activity 5

Me

Sent to

DUE - JUN 30, 2019 @ 11:59 PM

Dear All

This is the last activity . Perform well. You might have enjoyed and learn a lot through this medium. After completing this I will take the post test. Thank you all for your endurance and patience for learning language thorough mobile device.

**Writing skill activity 5**<https://docs.google.com/forms/d/1CR060u4tcLac>

Source: Screen Shot from Mobile Device

Table 6.16 Writing Assessment Score of respondents

Marks Obtained (Out of 44)	Female		Male		Total	
	No of Respondents	In %	No of Respondents	In %	No of Respondents	In %
31	0	0.00%	1	1.70%	1	1.30%
32	0	0.00%	1	1.70%	1	1.30%
33	0	0.00%	2	3.30%	2	2.50%
34	1	5.00%	1	1.70%	2	2.50%
35	0	0.00%	2	3.30%	2	2.50%
36	1	5.00%	2	3.30%	3	3.80%
37	0	0.00%	5	8.30%	5	6.30%
38	2	10.00%	8	13.30%	10	12.50%
39	2	10.00%	4	6.70%	6	7.50%
40	2	10.00%	5	8.30%	7	8.80%
41	3	15.00%	10	16.70%	13	16.30%
42	2	10.00%	13	21.70%	15	18.80%
43	6	30.00%	4	6.70%	10	12.50%
44	1	5.00%	2	3.30%	3	3.80%
Cumulative Total	20	100.00%	60	100.00%	80	100.00%

Source: Computed data

It has been found from Table 6.16 1 female respondent got 34 marks, 1 female respondent got 36 marks, 2 female respondents got 38, 39, 40 and 42 marks respectively. 3 female respondents got 41 marks, 6 female respondents got 43 marks and 1 female respondent marks. In case of male respondents 1 male respondent got 31 and 32 marks, 2 male

respondents got 33, 34, and 35 marks respectively. 3 male respondents got 36 marks, 5 male respondents got 37 marks, 10 male respondents got 38 marks, 6 male respondents got 39 marks, 7 male respondents got 40 marks, 13 male respondents got 41 marks, 15 male respondents got 42 marks, 10 male respondents got 43 marks and 3 male respondents got 44 marks.

In short, of 60 male respondents 86% respondents have scored more than 76 % marks which shows positive effect of mobile device on improving and learning the writing skills. In case of female respondents, 90% respondents have scored more than 76 % marks which have indicated that learning through mobile device with the help of Edmodo application has fairly remained effectiveness.

Part 2

6.9 Assessment Analysis of LSWR by running a statistical tool ANOVA for the activities uploaded on Edmodo.

Table 6.17 Measures of Central Tendency & Dispersion for Scores obtained by the respondents during the learning process by using the Edmodo Application

		Listening Score (16)	Speaking Score (30)	Reading Score (08)	Writing Score (44)
N	Valid	80	80	80	80
	Missing	0	0	0	0
	Mean	13.06	16.67	7.28	39.74
	Median	13.00	16.5	7.00	41.00
	Mode	13	18	8	42
	Std. Deviation	1.399	1.82	.779	2.997
	Skewness	-.114	-.184	-.857	-.901
	Std. Error of Skewness	.269	.269	.269	.269
	Kurtosis	-.761	.325	.224	.306
	Std. Error of Kurtosis	.532	.534	.532	.532
Percentiles	25	12.00	12.00	7.00	38.00
	50	13.00	18.00	7.00	41.00
	75	14.00	20.00	8.00	42.00

Source: Computed Data

6.9.1 Listening Activities

It has been found from table 6.17 that the Average score of respondents in case of developing Listening skills shows that out of 16 marks, respondents have obtained average 13.06 marks. The central 50% lot has scored median marks of 13 and the mode score suggest that highest frequency of the students is associated with the 13 marks. It has been also found from the value of std. deviation (1.399) that the deviation from average score is less than 2 marks that indicates the concentration of scores is near to average marks. Since the value of skewness lies between -1 and +1, it can be interpreted that the distribution of marks scored by the students in the sample is less skewed and more likely to be close to normal distribution. The value of Kurtosis indicates that the curve of distribution of marks obtained by the students of the sample is likely to be much flatter.

6.9.2 Speaking Activities

It has been found from table 6.17 that the average score of respondents in case of developing speaking skills shows that out of 30 marks respondents have obtained average 16.67 marks. The central 50% lot has scored median marks of 16.5 and the mode score suggest that highest frequency of the students is associated with the 18 marks. It has been also found from the value of std. deviation (1.82) that the deviation from average score is less than 1 mark that indicates the concentration of scores is near to average marks. Since the value of skewness lies between -1 and +1, it can be interpreted that the distribution of marks scored by the students in the sample is less skewed and more likely to be close to normal distribution. The value of Kurtosis indicates that the curve of distribution of marks obtained by the students of the sample is neither too flat nor too steep

6.9.3 Reading Activities

It has been found from table 6.17 that the average score of respondents in case of developing reading skills shows that out of 8 marks respondents have obtained average 7.28 marks. The central 50% lot has scored median marks of 7 and the model score suggest that highest frequency of the students is associated with the 8 marks. It has been also found from the value of std. deviation (.779) that the deviation from average score is less than 1 mark that indicates the concentration of scores is near to average marks. Since the value of skewness lies between -1 and +1, it can be interpreted that the distribution of marks scored by the students in the sample is less skewed and more likely to be close to

normal distribution. The value of Kurtosis indicates that the curve of distribution of marks obtained by the students of the sample is neither too flat nor too steep. On an average reading above table show the positive result of mobile device in case of developing listening skills.

6.9.4 Writing Activities

Table 6.17 has found that the Average score of respondents in case of developing reading skills shows that out of 44 marks respondents have obtained average 39.74 marks. The central 50% lot has scored median marks of 41 and the modal score suggest that highest frequency of the students is associated with the 42 marks. It has been also found from the value of std. deviation (2.997) that the deviation from average score is less than 3 marks that indicates the concentration of scores is near to average marks. Since the value of skewness lies between -1 and +1, it can be interpreted that the distribution of marks scored by the students in the sample is less skewed and more likely to be close to normal distribution. The value of Kurtosis indicates that the curve of distribution of marks obtained by the students of the sample is neither too flat nor too steep.

6.18 Frequency distribution of Listening Activities Scores of the Respondents

		Frequenc y	Percent	Valid Percent	Cumulative Percent
Valid	10	2	2.5	2.5	2.5
	11	10	12.5	12.5	15.0
	12	16	20.0	20.0	35.0
	13	21	26.3	26.3	61.3
	14	16	20.0	20.0	81.3
	15	14	17.5	17.5	98.8
	16	1	1.3	1.3	100.0
Total	80	100.0	100.0		

Source: Computed Data

6.19 Frequency distribution of Speaking Activities Scores of the Respondents

		Frequenc y	Percent	Valid Percent	Cumulative Percent
Valid	10	07	8.75	8.75	8.75
	12	15	18.75	18.75	27.50
	15	14	17.50	17.50	45.00
	18	18	22.5	22.5	67.5
	20	15	18.75	18.75	86.25
	25	11	13.75	13.75	100
Total	80	100.0	100.0		

Source: Computed Data

6.20 Frequency distribution of Reading Activities Scores of the respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	5	2	2.5	2.5	2.5
	6	10	12.5	12.5	15.0
	7	32	40.0	40.0	55.0
	8	36	45.0	45.0	100.0
	Total	80	100.0	100.0	

Source: Computed Data

6.21 Frequency distribution of writing Activities Scores of the Respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	31	1	1.3	1.3	1.3
	32	1	1.3	1.3	2.5
	33	2	2.5	2.5	5.0
	34	2	2.5	2.5	7.5
	35	2	2.5	2.5	10.0
	36	3	3.8	3.8	13.8
	37	5	6.3	6.3	20.0
	38	10	12.5	12.5	32.5
	39	6	7.5	7.5	40.0
	40	7	8.8	8.8	48.8
	41	13	16.3	16.3	65.0
	42	15	18.8	18.8	83.8
	43	10	12.5	12.5	96.3
	44	3	3.8	3.8	100.0
	Total	80	100.0	100.0	

Source: Computed Data

6.10 Conclusion:

This chapter is the core chapter of this study. Researcher has prepared the LSRW activity module which can be a possible sample. This sample would be useful for future researcher for extending their research activity. It would also helpful for teachers who want to use mobile learning in their traditional language classroom. The whole chapter is divided into two sections. The first section is analysis of Pre and Post Test and the second Section is analysis of LSRW activity module which was uploaded on the Edmodo application and the positive result of this small experiment fulfilled the objective of this study.

CHAPTER-7

Conclusion

7.1 Introduction

Mobile assisted language learning is an innovative way of learning language in the classroom. The recent detonation of technology in education, it has become the quite important to add technological tools for bringing innovation and advancement in language learning process. Since the concept of language lab had been introduced in language classroom, most of the tutors and language teacher have been imparting education to learners through some pre-programmed and pre-uploaded materials. Just like traditional classroom, the materials related language has been printed on the text, same way in the language lab, materials related to language has been prepared in advance by the tutors and it has been uploaded on the software, they follow. These pre-programmed materials remain continued unless the new software has been bought by organization or institute. Tutor or language teacher teaches the same materials every year to the learners. This kind of practice brings boredom to tutor as well as learners. The experience of mobile learning will definitely provide new atmosphere and charm to learn language in some novel ways. From chapter 1 to chapter 6, a genuine effort has been made in this research study to find out the effectiveness of mobile device in learning language and developing LSRW skills.

Chapter 1 has provided the detail introduction of study focusing on the evolution of language learning process from traditional grammar translation method to latest communicative approach, role of technology in language teaching-learning process, journey from Computer Assisted Language Learning (CALL) to Mobile Assisted language Learning (MALL) and other recent developments. It has also enfolded the explanation and conceptualisation of various terminologies used in the study and covered the objectives and its relevant hypothesis. The research methodology as a science of the study has been done scientifically to describe the step-wise process encompassed with relevant statistical tools used for analysis of data. The chapter ended with accentuating the significance of the study, major features and limitations of mobile device and a brief chapterisation scheme.

Chapter 2 has explicated the detail review of literature. The review of literature encircles the conceptual literature concerning the concepts and theories, and the empirical literature consisting of studies made earlier which are similar to the said study. The first aspect of the basic objective of this review was to develop the understanding and knowledge regarding the relevant concepts and theories so that the collected information and data can help to specify the research problem in a meaningful context. The second aspect of the basic objective of this review was to identify those studies made earlier which can facilitate in knowing the trends of thoughts and can enable to justify the research gap. With both the aspects, the study can research in pointing out the specific area which can streamline the objectives, underlying hypothesis and develop the appropriate research design so that the plan of work for the entire study can be done scientifically and systematically.

Chapter 3 has explored the detailed conceptual notes on Listening, Speaking; Reading and Writing (LSRW) activities. The study has focused on developing the said skills for learning language effectively through the use of mobile device. Hence, the explanation has comprised the nature and learning dynamics of skills.

Chapter 4 has explored the usage habits, patterns and purpose of using mobile device for developing LSRW skills. While investigating the usage habit of the respondents, it has been found that out of total 512 respondents, 5.86 % respondents on an average have spent 30 minutes a day on mobile device whereas, 36.52% respondents have spent 1 hour, 35.16% respondents have spent 2 hours and 22.46% of respondents have spent 3 or more than 3 hours on mobile device. In order to find out the quality usage of mobile device, the results have indicated that 31.1% respondents have used their mobile device before the college hours and 51% of the respondents have used their mobile device after the college hours. It has been recorded that 5.6% of the respondents have used their mobile device during the college hours and 41.6% respondents have used the mobile device in their leisure time and 33.9% respondents have used their mobile device at late night. While studying the multiple responses for using mobile device, it has been found that 31%, 25.3% and 20.6% respondents' have used their mobile device after college hours, during leisure time and at late night respectively. Hence, by correlating the quality time spent by the respondents for using mobile device during the college hours and after the college hours, it can be concluded that respondents can learn language satisfactorily by giving sufficient time to it.

Investigating the purpose of using mobile device, it has been found that 99.4% of the respondents have used their mobile device for routine phone calls, 80.1% have used for noting down notes, memos and calendar, 41.6% have used for surfing internet, 54.1% and 54.7 % of the respondents have used for accessing YouTube and Social media respectively. Such analysis has indicated that 80.01% of the respondents have learned and developed their skills by using the mobile device.

While finding out the multiple usage purposes of mobile device, respondents' usage analysis showed the use by 99.6% for routine phone calls 80% for education and 64% for chatting through WhatsApp, 54.8 % for social media, 54.2% for YouTube 38.2% for clicking pictures and 24.1% for access of vocabulary and dictionary. The study has clearly indicated that 80% of the respondents have used mobile device for learning and developing skills.

Chapter 5 has evaluated the effectiveness of mobile device in developing LSRW Skills of the selected respondents from Engineering Colleges of Gujarat. The findings have been presented in four different sections.

Section – I of the chapter has provided the preliminary information of the 512 respondents and has mostly covered the number of mobile users, number of Android mobile users, amount of time spend by the Android mobile users, the time preference for using mobile device for the purpose of learning language, General purpose of using mobile device and specific purposes such as education purpose, language learning purpose and LSRW skills development purpose, learning of LSRW skills through downloading various application and duration of learning through applications.

It has been found out that 86.33 % respondents have downloaded various applications related to language learning. Out of which 50% respondents have downloaded at least 1 application, 38% have downloaded 2 applications 7% respondents downloaded 3 and 5% have downloaded 4 or more than 4 applications. On investigating digital acquaintance and the learning duration of the respondents through applications, it has been found that 26.17% respondents have been learning the language through applications for 6 months, 40.82% in the last 1 year and 10.16% for more than 2 years. Such analysis has indicated that respondents have adopted the relevant steps for developing and improving their language learning skills through the use of mobile device.

Correlating the multiple responses, it has been found that 67.5% respondents have used English as a medium of communication, 9% of the respondents have used the Gujarati as a medium of communication, 1% of the respondents have used Hindi as a medium of communication, 22% of the respondents have used the Bilingual language as medium of communication. Hence, it has been concluded that the positive correlation between the learning through application and use of medium of communication have established high effectiveness of language learning and developing skills.

Section – II of this chapter has found out the usage effectiveness of mobile device in developing LSRW skills of 512 respondents and has derived the inferences with the help of Cross Tabulation and Chi-square analysis. On evaluating the effectiveness of mobile device on developing the Listening Skills based on cross tabulation analysis, it has been found that out of 512 respondents 66% could develop their listening skills based on regular use of mobile device. The same has been also significantly investigated with the help of Chi-square at 5% significance level with the calculated value i.e.40.9969 which is greater than the table value i.e. 3.841. The resulted analysis could test the hypothesis that there is significant impact of effectiveness of mobile device in developing Listening Skill of students of selected Engineering colleges of Gujarat.

On evaluating the effectiveness of mobile device on developing the Speaking Skills based on cross tabulation analysis, 70% respondents could bring the effectiveness in developing their speaking skill due to the regular use of mobile device. The similar findings were also obtained through Chi-square and tested the hypothesis that there is significant effectiveness of Mobile Assisted language learning in the Speaking Skill of Engineering students of Gujarat. Even in case of reading skills, 69% could develop their skills due to mobile device and tested hypothesis that there is significant impact of effectiveness of mobile device on developing Reading Skill of selected Engineering colleges of Gujarat. Moreover, 62% of the total respondents could bring the effectiveness in developing their writing skills due to the regular use of mobile device and the similar was significantly proved by accepting the hypothesis that there is significant effectiveness of Mobile Assisted language learning on the Writing Skill of students of selected Engineering colleges of Gujarat.

Section – III of this chapter has envisaged the detail analysis to find out the effectiveness on improving the English learning process, the ease of using mobile device compare to desktop, use of the inbuilt features of mobile device such as, Internet

browsing/Applications/ Music/ text messaging/ Gaming/ Camera and other utilities in providing exposure for learning English, Surfing websites and social network applications such as, WhatsApp face book adding in to learning and use of mobile device easier than surfing the same on desktop and laptop. Inferences derived with the help of cross tabulation investigated that 45.31% and 39.65% respondents have strongly agreed and agreed that there is strong effect of mobile device in English learning process. While examining the relationship between the usage of mobile device and improvement in the process of learning English with the help of Chi-square, it has been found that there is significant effectiveness of Mobile device in improving the English learning process.

On finding out the Ease of using Mobile device compare to English learning process through desktop, 80% respondents have been found using mobile device easily compare to desktop for the learning process of the English. Studying the use of various inbuilt features of mobile device in improving the learning process, it has been found that 84.96% respondents have been strongly agreed that all features significantly adds in improving learning process. Analyses of surfing websites and social network applications such as WhatsApp, Face book etc. through mobile device is easier than surfing the same through the desktop and laptop, it has been found that 81.64% respondents strongly agreed that all these has contributed significantly in improving the learning process.

Findings on the regular use of Mobile device in reading messages and listening to informative videos depicted that 87.70 % respondents have been agreed and strongly agreed that the regular use of mobile device has substantially improved their listening as well as speaking skills. Whereas, 79.30% respondents have been agreed and strongly agreed that the regular use of mobile device has substantially improved their reading as well as written skills. Investigating the use of mobile device in English language learning Apps, 83.60% respondents have agreed and strongly agreed that there is a positive and significant relationship between the English language learning Apps and improving the learning process.

Section – IV of this chapter has rated the Mall Contribution in improvising learners' learning skills such as listening, speaking, reading, writing, improving vocabulary, improving pronunciation, improving presentation, developing entrepreneurial spirit, reasoning, developing learning habits, improving logical thinking, improving general knowledge, improving competitive aptitude with the help of factor analysis. The findings

have concluded that the 3 factors such as Listening, Speaking and reading with its Initial values i.e. 10.520, 1.456 and 1.410 respectively have been found that there is significant contribution of MALL.

Chapter 6 of this study has evaluated the effectiveness of mobile usage for learning language with the help of Edmodo application. The assessment analysis of LSRW activities uploaded on Edmodo has been measured with various techniques. The analysis and inferences have been divided in two sections.

Section-I has measured the effectiveness and improvement in learning through the analysis of assessment score before and after the activities uploaded on Edmodo in form of pre-test and post-test.

The assessment analysis made in section -I has evaluated the pre-test and post-test results for LSWR activities the help of paired 't' test. It has been found that the mean value of Post-test listening skills is 10.7375 and pre-test is 7.7750 which has indicated the positive difference. Such findings have tested that there is significant impact of effectiveness of mobile device in developing Listening Skills of selected Engineering colleges of Gujarat. The paired samples correlation of pre and post-test has also found positive correlation.

In case of evaluating the effectiveness of mobile device in developing Speaking Skill, the paired sample statistics of pre-test and post-tests samples of speaking skills have indicated the mean value 7.8375 and 10.4375 respectively which has also found positive correlation and the hypothesis tested that there is significant impact of effectiveness of mobile device in developing speaking Skill of selected Engineering colleges of Gujarat.

The evaluation of pre and post-test for reading skill, the paired sample statistics that the pre-test samples of reading skills have indicated the mean value 7.7250 and post-test mean value 10.6250 that have also indicated the positive correlation and the hypothesis that there is significant impact of effectiveness of mobile device on developing Reading Skills of selected Engineering colleges of Gujarat is tested.

While examining the effectiveness of mobile device in developing Writing Skill, the mean assessment score of paired samples in case of pre and post-test found out the mean value 7.7750 and post-test mean value 11.4375. This is also positively correlating the hypothesis that there is significant impact of effectiveness of mobile device on developing writing Skills of selected Engineering colleges of Gujarat is tested.

Section-II has provided the assessment analysis of the LSRW activities uploaded on the Edmodo. Various activities modules were uploaded on the Edmodo after the assessment of pre-test. Randomly selected 80 respondents from SVBIT and GPERI colleges were asked to practice the same and during their practice activities assessments were conducted so that the effectiveness of implemented activities can be examined and inferences can be drawn. Section-II has provided assessment analysis of LSWR activities in three parts as under:

7.2 Assessment Analysis of LSRW Activities through Cross tabulations

- Table 6.13 has described the Listening activity assessment score of 80 respondents from five (two) different activities carried out on Edmodo platform of mobile device. These activities had been carried out by 60 male respondents and 20 female respondents. The analysis of cross tabulation of 60 male respondents and 20 female respondents have signified from table 6.13 that the assessment score that all out of total 60 male respondents, 50 respondents i.e. 80% have scored between 12 to 15 marks i.e. secured 30%. Such analysis indicates the sound effectiveness of learning. The similar scene has been also found in case of female respondents that 85% of the respondents have scored between 12 to 15 marks means they have obtained 30% to 35% scores which has indicated that there is a high effectiveness of learning through Edmodo application
- It has been found from Table 6.14 that out of 20 female respondents 10% (2 Female) female respondents received 33% (10 marks) , 25% (5) female respondents got 40% (12 marks), 10% (2) female respondents got 50% (15 marks) , 15% (3) female respondents got 60% (18 marks) , 25% (5) female respondents received 67% (20 marks) and 15% (3) female respondents received 83.33% (25 marks). In the case of male respondents 12% (7) male respondents received 33% (10 marks),25% (15) male respondents got 40% (12) marks, 24% male respondents got 50% (15 marks), 30% (18) male respondents got 60% (18 marks) , 25% (15) male respondents received 67% (20 marks) and 18.33% (11) male respondents received 83.33% (25 marks) . This interpretation indicates that in case of speaking, mobile device is effective too.
- Results in case of female respondents found that 95 % of the total respondents have score from 75% to 100% marks and only 5% of the respondents have scored below 75%. Such analysis indicates that developing reading skill through Edmodo application is highly effective and positive.

- It has been found from Table 6.16 that out of 60 male respondents 86% respondents have scored more than 76 % marks which shows positive effect of mobile device on improving and learning the writing skills. In case of female respondents, 90% respondents have scored more than 76 % marks which have indicated that learning through mobile device with the help of Edmodo application has impartially remained effectiveness.

7.3 Assessment Analysis of LSRW Activities through ANOVA

- It has been found from table 6.17 that the Average score of respondents in case of developing Listening skills shows that out of 16 marks respondents have obtained average 13.06 marks. The central 50% lot has scored median marks of 13 and the model score suggest that highest frequency of the students is associated with the 14 marks. It has been also found from the value of std. deviation (1.399) that the deviation from average score is less than 2 marks that indicates the concentration of scores is near to average marks. Since the value of skewness lies between -1 and +1, it can be interpreted that the distribution of marks scored by the students in the sample is less skewed and more likely to be close to normal distribution. The value of Kurtosis indicates that the curve of distribution of marks obtained by the students of the sample is likely to be much flatter.
- It has been found from table 6.17 that the Average score of respondents in case of developing Speaking skills shows that out of 30 marks respondents have obtained average 16.67 marks. The central 50% lot has scored median marks of 13 and the model score suggest that highest frequency of the students is associated with the 14 marks. It has been also found from the value of std. deviation (1.399) that the deviation from average score is less than 2 marks that indicates the concentration of scores is near to average marks. Since the value of skewness lies between -1 and +1, it can be interpreted that the distribution of marks scored by the students in the sample is less skewed and more likely to be close to normal distribution. The value of Kurtosis indicates that the curve of distribution of marks obtained by the students of the sample is likely to be much flatter.
- It has been found from table 6.17 that the average score of respondents in case of developing reading skills shows that out of 8 marks respondents have obtained average 7.28 marks. The central 50% lot has scored median marks of 7 and the model

score suggest that highest frequency of the students is associated with the 8 marks. It has been also found from the value of std. deviation (.779) that the deviation from average score is less than 1 mark that indicates the concentration of scores is near to average marks. Since the value of skewness lies between -1 and +1, it can be interpreted that the distribution of marks scored by the students in the sample is less skewed and more likely to be close to normal distribution. The value of Kurtosis indicate that the curve of distribution of marks obtained by the students of the sample is neither too flat nor too steep

- Table 6.17 has found that the Average score of respondents in case of developing writing skills shows that out of 44 marks respondents have obtained average 39.74 marks. The central 50% lot has scored median marks of 41 and the model score suggest that highest frequency of the students is associated with the 42 marks. It has been also found from the value of std. deviation (2.997) that the deviation from average score is less than 3 marks that indicates the concentration of scores is near to average marks. Since the value of skewness lies between -1 and +1, it can be interpreted that the distribution of marks scored by the students in the sample is less skewed and more likely to be close to normal distribution. The value of Kurtosis indicate that the curve of distribution of marks obtained by the students of the sample is neither too flat nor too steep

7.4 Assessment Analysis of LSRW Activities through Chi-Square

- It has been found from table 6.14 that the p-value is less than significance level $\alpha = 0.05$, the null hypothesis is rejected hence it concluded that mean score of population of students' marks is significantly different from mean score of samples of students for all four activities.

7.5 Recommendations

The following recommendations are pleaded from the study

- Study on the usage habits, patterns and purpose of using mobile device for developing LSRW skills suggests that if quality time by mobile users would be increased for learning English language, it will give even better results than the study has investigated.

- The study has investigated that 80% of the total respondents use mobile device for education purpose. Such increased number of respondents from study suggests that there are great potential lies for learning English language and developing LSRW skills with the help of many applications available on internet.
- It has been found out that 86.33 % respondents have downloaded various applications related to language learning which suggests that application confining the skills development would be more helpful in developing LSRW Skills.
- Correlating the multiple responses, it has been found that 67.5% respondents have used English as a medium of communication which suggests that if the number of users will be increase in the same line, it will enhance the LSRW skills.
- On evaluating the effectiveness of mobile device on developing the Listening Skills based on cross tabulation analysis, it suggests that regular use of mobile device will enhance the LSWR skills.
- 81.64% respondents have strongly agreed that all the learning processes contributes significantly in improving the skills which indicates that the innovative techniques and methods in learning process through the use of mobile device enhance the skills.
- The assessment analysis made for the activities score through Edmodo application found that the results of respondents have improved significantly in Post-test with the help of various activities practiced by the respondents which suggests that If the educational institute will start implementing techniques of learning through mobile in all discipline in its all curriculum, the English language learning skills will effectively.
- The analysis assessment analysis of the LSRW activities uploaded on the Edmodo has also indicated that there is a high effectiveness of learning through Edmodo application which suggests that learning through live activities by various applications on mobile device will enhance the English language learning and improve the LSWR skills.

7.6 Academic suggestions:

- The ultimate goal and aim of this study are to prove effectiveness of mobile assisted language learning. The target audience of this study was the first year engineering students who were selected randomly form 13 engineering colleges of Gujarat

Technological University. These colleges were randomly selected from five different Zones of Gujarat Technological university. The positive findings of this study indicate that mobile learning should be introduced in higher education as a medium or tool for learning language. It can be an additional resource for tutors as well as learners in teaching learning procedure. Through positive findings, this study indirectly evaluated effectiveness and reception of mobile learning in teaching and learning of English language in usual traditional classroom instructions. Hence findings of this study could ascertain new ideology in language classroom particularly when traditional classroom is merged with mobile learning philosophy in higher education. Acceptance and positive responses of learners give some new insight in actual classroom learning.

- This study might be appealing to language teachers in the direction of attaining novelty in their traditional classroom by setting up mobile technology. It was quite fascinating for the language teacher, the practitioner, course designer and syllabus designer to utilize this study as a paradigm and framework for framing very interesting language learning objects for upcoming digital generation.

7.7 Issues and Challenges:

- While implementing mobile assisted language learning activities through Edmodo platform, researcher also faced some technical issues. These issues were realized on asking the response of speaking activities via whats up. Some issues and challenges were observed while analysing questionnaire too. These issues and challenges are as follow:

7.7.1 Issues related to mobile device learning:

- While analysing the questionnaire, researcher came to know that many respondents own different type of mobile i.e. Iphone, Android, Simple telephony etc. Such different types of mobiles also comprise different features. In such situation, the researcher faced the problem of preparing materials in such version of software which can be supported to each and every type of mobile. That was the reason that researcher prepared most of the language activities in Google form which are easy to open in each type of mobile phone as well as it is quite easy to get result at one place too.
- Apart from this many minor issues such as internet connectivity, facing trouble in watching high resolution video into small screen of mobile phone, listen to audio file

using microphone for long period of time, limited storage space in mobile phone etc. All these issues became major issues if the tutor does not take them seriously.

7.7.2 Issues related to learner's improper ways to use mobile phone.

- Mobile phone is banned in most of the institutes and educational premises. The issue of maintaining classroom discipline and ethics are the principal issues where most of authorities believe that learner use mobile devices improperly in the classroom. Using mobile devices for chatting, listening to music and playing games are the general trends among youngsters. The same pattern of using mobile device they may apply during the regular classroom too. It has been also observed that due to high resolution camera feature of mobile devices, many youngsters click pictures and photo everywhere. Instead of noting down from notice-board and black board, they just click the pictures of the same. Traditionally learners used to refer many books and visit library for preparing assignments, now a days, learners download books online, visit search engine such as Google, Slide share,bing,Ask.com etc. They take pictures of assignments and share among their peer group. These types of written assignments are repetition of the same materials. Apart from these, improper use of social media spoils study time of learners. During the survey analysis of questionnaire, it has been observed that 232 respondents out of 512 use mobile device for social media. It means that nearly 45% of learners use mobile device for two or more than two hours in a day and most of the time they remain busy in social media. Such use of mobile device interrupts their study as well as ruins their crucial time of career.

7.8 Limitations of the study

- This study aimed at showing effectiveness of mobile assisted language learning among engineering students of Gujarat. Keeping in mind the magnitude of engineering colleges and deriving clarity in research, the researcher has randomly selected the target audience and has limited the sample up to 13 engineering colleges from five different zones of Gujarat technological university. The researcher circulated questionnaire through Google form and collected responses from 512 students. Moreover, observing time period of 4 months, researcher kept 80 students from two engineering colleges as a sample for try-out of LSRW activity module. Due to these, the outcome or findings of this study may not be generalized to all engineering students of Gujarat state.

- Another realistic restraint for the study is the time period for try-out of LSRW activity Module on Edmodo Platform. It was experimented for a period of four months only. If such type of schedule is introduced for longer period, it will bring tangible impact on everyday language learning schedule of actual classroom. Mobile assisted language learning is the latest tool and it require consistent effort from tutor's side in convincing students as well authority for setting up mobile learning climate and programme. As mentioned earlier the issue of improper use of mobile device in actual classroom situation, it becomes a genuine duty for tutor and language teacher to create positivity among students and make them aware about positive use of mobile devices. To fulfil this objective this type of research study as well as many other researches may useful for tutors and language teachers in framing the best mobile assisted language learning activities.
- As researcher sent questionnaire via Google link to target audience, it was difficult to restrict target audience to use mobile devices for response. Even the LSRW activity module was uploaded on Edmodo application which can be accessible on mobile devices as well as desktop. All the activities of this study were performed outside of classroom and respondents were free to response at anytime, anywhere. It may be possibilities that respondents may use desktop for responding questionnaire and performing LSRW activity module. Researcher tried their level best to ask respondents to use mobile devices throughout this study.

7.9 Future suggestions

- In the perspective of the result and findings of this study, it is expected that tutors or language teachers should explore their technical knowledge and should incorporate latest tool such as mobile device in imparting educational information. Generally, language teachers hardly get enough time to complete the prescribed syllabus in semester system of the most of universities of Gujarat. In such situation use of mobile device for language learning purpose would prove to be the best option for sharing materials, PPTs, even lecture notes. By using mobile learning devices learners would become more independent and self-sufficient.
- A substantial amount of period was devoted to this study and researcher fulfilled the objectives of the study by adopting random selection method for identifying the target audience. Many unsolved and unanswered queries such as developing a personal

application rather than putting LSRW activity module on Edmodo application, increasing time period for try-out activities may take place as the topic of research for upcoming digital generation. As per the report of techjury, a team of software experts the number of Smartphone users is 3.5 billion people around the world today and it will increase to 3.8 billion people Smartphone users in 2021. As per the report of Statista there are 424.74 million people in India use mobile phone in their daily routine work and as per the report of Cellular Operating Association of India (COAI) 6.8 crore people use mobile phone in Gujarat state. Such statistic data prove that mobile device is converted into such a necessity which cannot be repudiated. Mobile device has replaced place of wristwatch as well as pocket dairy even camera devices too. After the introduction of online payment applications such as Pay TM, Phone Pay, Google Pay etc. most of the people use mobile device for paying bills and buying necessary domestic things too. Such dynamic use of mobile device naturally attracts the attention of future researcher in exploring more topics regarding educational use of mobile devices.

7.10 Conclusion

In nutshell, mobile assisted language learning might be a powerful tool if it is presented with special care and pre-planning. The tutor or language teacher has to update technical knowledge at the regular interval of time. Positive attitude and proper use of mobile device make the students feel the presence of each of every important information, knowledge and facts in their palm. It is duty of tutor or language teacher to prepare and to incorporate mobile device for language learning in such a way that students can get the benefit of each features of mobile device. Mobile learning does not require any costly language software and well equipped language lab. In this context, Mobile assisted language learning is somehow easier than computer assisted language learning for both students as well as teacher. Eventually, it is user centric approach where useful practice, pre-planned activities, positive perception and creditability to mobile devices play a pivotal role in preparing language learning activities in totally innovative environment.

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Appendix A

Pre –Test

Topic: Effectiveness of Mobile assisted language learning among engineering students of Gujarat

Name of Institute: _____

Enrolment Number: _____

Semester: _____

Branch: _____

Mobile Number: _____

Email Address: _____

Date of Test: _____

Signature of Student: _____

Instructions:

- 1) Read the instructions written below each activity
- 2) do all the activities as per instruction.
- 3) Mobile phone is allowed to use while performing speaking activities.

Listening Skills

Listen to the paragraph to be dictated by your teacher and complete the paragraph given.

The Trojan War is one of the most famous wars in history. It is well known for the 10-year duration, for the heroism of a number of legendary characters, and for the Trojan horse. What may not be familiar, however, is the story of how the war began.

According to Greek myth, the strife between the Trojans and the Greeks started at the wedding of Peleus, King of Thessaly, and Thetis, a sea nymph. All of the gods and goddesses had been invited to the wedding celebration in Troy except Eris, goddess of discord. She had been omitted from the guest list because her presence always embroiled mortals and immortals alike in conflict.

To take revenge on those who had slighted her, Eris decided to cause a skirmish. Into the middle of the banquet hall, she threw a golden apple marked “for the most beautiful.” All of the goddesses began to haggle over who should possess it. The gods and goddesses reached a stalemate when the choice was narrowed to Hera, Athena, and Aphrodite. Someone was needed to settle the controversy by picking a winner. The job eventually fell to Paris, son of King Priam of Troy, who was said to be a good judge of beauty. Paris did not have an easy job. Each goddess, eager to win the golden apple, tried aggressively to bribe him.

“I’ll grant you vast kingdoms to rule,” promised Hera. “Vast kingdoms are nothing in comparison with my gift,” contradicted Athena. “Choose me and I’ll see that you win victory and fame in war.” Aphrodite outdid her adversaries, however. She won the golden apple by offering Helen, daughter of Zeus and the most beautiful mortal in the land, to Paris. Paris, anxious to claim Helen, set off for Sparta in Greece.

Although Paris learned that Helen was married, he nevertheless accepted the hospitality of her husband, King Menelaus of Sparta. Therefore, Menelaus was outraged for a number of reasons when Paris departed, taking Helen and much of the king’s wealth back to Troy. Menelaus collected his loyal forces and set sail for Troy to begin the war to reclaim Helen.

Exercise:

The Trojan War is one of the most famous wars in history. It is well known for the _____ of a number of legendary characters, and for the Trojan horse. What may not be familiar, however, is the story of how the war began.

According to Greek myth, _____ started at the wedding of Peleus, King of Thessaly, and Thetis, a sea nymph. All of the gods and goddesses had been invited to the wedding celebration in Troy except _____. She had been omitted from the guest list because her presence always embroiled mortals and immortals alike in conflict.

To take revenge on those who had slighted her, Eris decided_____. Into the middle of the banquet hall, she threw a golden apple marked “for the most beautiful.” All of the goddesses began to haggle over who should possess it. The gods and goddesses reached a stalemate when the choice was narrowed to_____. Someone was needed to settle the controversy by picking a winner. The job eventually fell to Paris, son of King Priam of Troy, who was said to be a_____. Paris did not have an easy job. Each goddess, _____, tried aggressively to bribe him.

Speaking Skill

1) At the College

Observe the following conversation and perform the role play in pair.

Prit: Do you do exercise every day?

Mohan: Sometimes. It depends on the work load.

Prit: Work load...What type of work load do you have ?

Mohan: See; I work in multinational company. Everyday our working hours is fixed but workload is allotted in bulk so that we need to work at home too.

Prit: This is miserable situation of all who work in so called high cultured world.

Mohan: Yeah .Agree but in compare to local company, they pay high too.

Prit: What is use of money if it snatches away the moments of enjoyment from life?

Mohan: What enjoyment do you do with handful of money?

Prit: I am happy with limited income and money.

Mohan: If you are happy, the issue is over. There isn't any end of this talk. See you tomorrow.

Prit: O.K. bye and spare some time for your body too.

Mohan: bye- bye

2. Observe the following conversation and record it in pair on your mobile phone.

At the railway station

Raman: Excuse me please!

Passenger: Yes

Raman: Hello, I am Raman Patel. I need your help.

Passenger: O.K. what help do you need?

Raman: Actually I am unknown to this railway Station. Would you tell me the ticket – window?

Passenger: On platform number -1. May I know for what purpose you are looking for ticket-window?

Raman: For buying ticket.

Passenger: Oh...Do you have mobile phone?

Raman: I have the latest smart phone.

Passenger: Good. Download an application of railway reservation application. Now days we can not only book reservation ticket but also can buy general ticket. So no need to visit ticket window or standing in queue for buying ticket.

Raman: Is it possible? I am under the impression that we can book reservation ticket only.

Passenger: Railway authority has started this facility just now.

Raman: o.k. Thank you for providing such great information.

Passenger: My pleasure.

Raman: Nice to meet you.

Passenger: Same to you. Bye

Reading Skills

Read the following paragraph and select an appropriate option given below.

Ask most people what their biggest fear is and chances are many of them will reply “public speaking”. In fact a majority of people would actually rather die than have to engage in any form of public pronouncement. I’m not exaggerating. A couple of years ago, a study of more than 2,000 Brits found that a fear of public speaking was one of society’s most pervasive fears. Only the loss of a family member was considered a more terrifying prospect.

As a radio presenter, who naturally enjoys the sound of their own voice (an occupational hazard) this dread has always baffled me somewhat. That was until an email casually popped into my inbox earlier this year, inviting me to do a TED talk at an event in London. Fast forward four months, I was ruing the day I impulsively agreed to this offer, as I gingerly stepped onto a stage at the Museum of London and opened my bone dry mouth to speak in front of hundreds of people in the audience.

For the uninitiated, TED talks are a global phenomenon. TED stands for Technology, Entertainment and Design and what started out as a small group of people from these different fields sharing their most compelling ideas at a gathering in California 30 years ago, has now snowballed into hundreds of conferences around the world and thousands of inspirational and motivational talks online. TED illuminati include everyone from Bill Clinton to Bill Gates. The latter memorably prompted headlines in 2009 during his talk when he released a swarm of mosquitoes into a stunned audience in order to make a point about the dangers of malaria. And that sort of stunt directly speaks to TED’s mission: ‘Ideas Worth Spreading’ via powerful storytelling. Gulp. No pressure then.

Today, TED talks, which cover every subject from leadership to sex, have been collectively watched more than a billion times, garnering more than 1.5 million views a day. According to its website – that equates to an average of 17 new page views a second. But the extraordinary success of these inspirational short talks – no TED talk can be longer than 18 minutes, supposedly the average attention span – is indicative of something deeper: our perennial desire to better ourselves and connect to a deeper meaning. Put simply, these sorts of warm, witty and genuinely uplifting talks are fast replacing the self-help books of yesterday. As well as the headline conferences, there are now more than 130 other

gatherings globally, using the TED licence, known as TEDx events – which is what I was being invited to speak at. The theme was women, as it was an invite from the brilliant local group, TEDx Covent Garden Women, and that was that – the rest was up to me.

Emma accepted the invitation to talk. Well sort of. Accepting this invitation meant I would have to adhere to the strict rules of all small or big TED-branded events. Crucially, I also knew whatever I said would end up being broadcast on the internet where you and your idea will be judged forever Or worse still, totally ignored.

(Barnett, Emma. "Dry Mouth and Sweaty Armpits: What It's Really like to Give a TED Talk." The Telegraph. November 13, 2015)

Question Answer

1) What is the mission that drives TED Talks?

- A) Ideas worth sharing
- B) Let's talk!
- C) Ideas worth spreading
- D) let's share

2) According to the passage, what are some of society's most pervasive fears?

- A) Public Speaking
- B) Death of a family member
- C) Disaster
- D) Both A and B

3. What does 'TED' stand for?

- A) Talk, Entertainment and dance
- B) Technology, Entertainment and design
- C) Television, Energy and detail
- D) None of above

Writing Skills

1 Circle the correct form of the verb tense and indicate the rule that determines the correct answer.

1. I am sure that both Catherine and Lucy (is, are) coming to visit this weekend.
2. The scissors (is, are) kept in the top desk drawer.
3. Neither the twins nor their elder brother (have, has) ever seen snow.
4. Some of the fruits (have, has) already begun to ripen.
5. The news reported by the president of the college (are, is) considered bad by most people.

2. Identify the common errors and rewrites the sentences:

Observe the articles “a, an, the” as per the requirement.

- 1) We live in village.

- 2) He is best player in the team.

- 3) The iron is an useful metal.

- 4) The man is mortal.

- 5) Stockton is an university town.

Observe Preposition as per requirement.

- 1) Send this letter on my new address.

Appendix B

Post –Test

Topic: Effectiveness of Mobile assisted language learning among engineering students of Gujarat

Name of Institute: _____

Enrolment Number: _____

Semester: _____

Branch: _____

Mobile Number: _____

Email Address: _____

Date of Test: _____

Signature of Student: _____

Instructions:

- 1) Read the instructions written below each activity
- 2) Do all the activities as per instruction.
- 3) Mobile phone is allowed to use while performing speaking activities.

Listening Skills

Listen to the paragraph to be dictated by your teacher and complete the paragraph given.

The Trojan War is one of the most famous wars in history. It is well known for the 10-year duration, for the heroism of a number of legendary characters, and for the Trojan horse. What may not be familiar, however, is the story of how the war began.

According to Greek myth, the strife between the Trojans and the Greeks started at the wedding of Peleus, King of Thessaly, and Thetis, a sea nymph. All of the gods and goddesses had been invited to the wedding celebration in Troy except Eris, goddess of discord. She had been omitted from the guest list because her presence always embroiled mortals and immortals alike in conflict.

To take revenge on those who had slighted her, Eris decided to cause a skirmish. Into the middle of the banquet hall, she threw a golden apple marked “for the most beautiful.” All of the goddesses began to haggle over who should possess it. The gods and goddesses reached a stalemate when the choice was narrowed to Hera, Athena, and Aphrodite. Someone was needed to settle the controversy by picking a winner. The job eventually fell to Paris, son of King Priam of Troy, who was said to be a good judge of beauty. Paris did not have an easy job. Each goddess, eager to win the golden apple, tried aggressively to bribe him.

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Although Paris learned that Helen was married, he nevertheless accepted the hospitality of her husband, King Menelaus of Sparta. Therefore, Menelaus was outraged for a number of reasons when Paris departed, taking Helen and much of the king’s wealth back to Troy. Menelaus collected his loyal forces and set sail for Troy to begin the war to reclaim Helen.

Exercise:

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Raman: For buying ticket.

Passenger: Oh...Do you have mobile phone?

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1. I am sure that both Catherine and Lucy (is, are) coming to visit this weekend.
2. The scissors (is, are) kept in the top desk drawer.
3. Neither the twins nor their elder brother (have, has) ever seen snow.
4. Some of the fruits (have, has) already begun to ripen.
5. The news reported by the president of the college (are, is) considered bad by most people.

2. Identify the common errors and rewrites the sentences:

Observe the articles “a, an, the” as per the requirement.

1) We live in village.

2) He is best player in the team.

3) The iron is an useful metal.

4) The man is mortal.

5) Stockton is an university town.

Appendix C Rubric

Writing Skills Rubric

	Average 1	Good 2	Better 3	Best 4	Competent 5	Score
Justification of Topic	Introduction is not relevant to topic. Logical coherence is lacking. Language accuracy is not taken care	Introduction is good but logical coherence is lacking. Language accuracy is not taken care.	Introduction is impressive. Logical coherence is lacking. Language accuracy is slightly taken care. Appropriate vocabularies are not used.	Introduction is more impressive. Logical coherence is realized in examples. Language accuracy is taken care but appropriate vocabularies are not used.	Introduction is up to mark. Well arranged logical coherence is used. Language accuracy is taken care and appropriateness of vocabularies is well maintained.	
Argument	Statements are not supported by logical Arguments. Ideas are not unconnected logically	Statements are supported by Argument but Ideas are not connected logically	Statements are supported by logical ideas but logic is not relevant.	Statements are well supported by relevant logical ideas but they lost the flow of topic	Statements are well organized with relevant logical idea and flow of topic is well maintained.	
Overall impression	Overall the paragraph is not convincing.	Overall the paragraph is written well but some mistakes are observed.	Overall the paragraph is better, still lacking well planned end.	Overall paragraph is convincing but language is simple.	Overall paragraph is convincing, well planned and language is lucid and end part is logically arranged too.	

Speaking skills rubric

	Average 1	Good 2	Better 3	Best 4	Competent 5	Score
Fluency	Speech is too slow. Lot of hesitation is observed. Speech is not audible. Sentences are observed as memorized.	Speech is slow with frequently hesitation. Except few sentences, most of sentences are not audible.	Speech is somewhat smooth; still some hesitation is observed. Due to repetition of words, audibility gets affected.	Speech is Smooth and lucid; still Few hesitations are observed. Less repetition of words.	Speech is lucid, impressive and up to mark. Hesitation is not observed. Voice quality is excellent.	
Pronunciation	Pronunciation is lacking and hard to understand; No effort towards a native accent.	Pronunciation is okay; No effort towards a native accent	Pronunciation is good; Some effort at accent, but is definitely non-native.	Pronunciation is good and satisfactory effort at accent	Pronunciation is excellent; accent is as per expectation.	
Grammar	Spoken sentences are grammatically incorrect. Meaning Of subject matter Subject matter is not clear.	Spoken sentences have Frequent grammatical errors. Meaning of the subject matter is quite clear.	Spoken sentences have some grammatical errors. The meaning of the subject matter is sometime out of topic.	Spoken sentences have slight grammatical error. The meaning of the subject matter is clear but not convincing.	Spoken sentences are grammatically correct. The meaning of the subject matter is clear and sticks to the subject matter. Speech is convincing.	

Reading Skills Rubric

	Average 1	Good 2	Better 3	Best 4	Competent 5	Score
Comprehension	Reader demonstrates little or no understanding of the paragraph. The subject matter has not been focused as per the information given in the paragraph.	Reader demonstrates a little understanding of the paragraph. Subject matter has been focused a little more as per the information given in the paragraph.	Reader demonstrates more understanding of the paragraph. Subject matter has been focused more as per the information given in the paragraph.	Reader demonstrates better understanding of the paragraph. Subject matter has been focused as per the information in the paragraph.	Reader demonstrates an accurate Understanding of the paragraph. Subject matter has been focused perfectly as per the information given in the paragraph.	
Interpretation	Reader makes little Interpretation of the paragraph. Answers given by reader do not match with the subject matter of the paragraph.	Reader makes simple interpretation of the paragraph. Answers given by reader match slightly to the subject matter of the paragraph.	Reader makes good interpretation of the paragraph. Answers given by reader have little clarity in the subject matter of the paragraph.	Reader makes better interpretation of the paragraph. Answers given by reader have more clarity in the subject matter of the paragraph.	Reader makes the best and excellent interpretation of the paragraph. Answers given by reader are correct and stick to the subject matter of the paragraph.	
Accuracy in prediction	Reader does not make accuracy while predicting correct answer of the questions given below the paragraph	Reader makes little accuracy while predicting correct answer of the questions given below the paragraph	Reader makes good accuracy while predicting correct answer of the questions given below the paragraph	Reader makes better accuracy while predicting correct answer of the questions given below the paragraph	Reader makes the best and excellent accuracy while predicting correct answer of the questions given below the paragraph	

Listening skills Rubric

	Average 1	Good 2	Better 3	Best 4	Competent 5	Score
Comprehension	Listener demonstrates little or no understanding of the recorded audio and paragraph dictation process.	Listener demonstrates a little understanding of the recorded audio and paragraph dictation process.	Listener demonstrates more understanding of the recorded audio and paragraph dictation process.	Listener demonstrates better understanding of the recorded audio and paragraph dictation process.	Listener demonstrates an accurate Understanding of the recorded audio and paragraph dictation process.	
Interpretation	Listener makes little Interpretation of the recorded audio and paragraph dictation process.	Listener makes simple interpretation of the recorded audio and paragraph dictation process.	Listener makes good interpretation of the recorded audio and paragraph dictation process.	Listener makes better interpretation of the recorded audio and paragraph dictation process.	Listener makes the best and excellent interpretation of the recorded audio and paragraph dictation process.	
Accuracy in prediction	Listener does not make accuracy while predicting the recorded audio and paragraph dictation process.	Listener makes good accuracy while predicting the recorded audio and paragraph dictation process.	Listener makes better accuracy while predicting the recorded audio and paragraph dictation process.		Listener makes the best and excellent accuracy while predicting the recorded audio and paragraph dictation process.	

Appendix D

Questionnaire

Dear Friends,

I am doing my doctoral research on ‘A study of the effectiveness of Mobile Assisted Language learning among engineering students of Gujarat’. In order to find out the usage trend of mobile device, its effectiveness and impact on teaching learning processes, a modest attempt is carried out by preparing following organized list of questions. I request you to co-operate me by filling up the appropriate answers in this questionnaire. The information collected through the said questionnaire shall be utilized purely for academic purpose only.

Assistant Rasik Tanna

Professor

Shankersinh Vaghela Bapu Institute of Technology

Vasan, Gandhinagar

Mobile: 9408073276

General Information

College/Institute _____ Branch _____

Semester _____ Enrolment No/Roll No _____

Age _____ Gender _____

City/Town _____ Mobile No _____

Email Id _____

1) Do you have mobile phone?

a) Yes []

b) No []

2) Which type of Mobile phone do you use?

a) Android Phone []

b) Simple Telephony Phone []

c) Window Phone []

d) I Phone []

e) Other _____

3) How much time do you spend every day on your mobile phone?

a) 30 minutes []

b) 1 Hour []

c) 2 Hours []

d) 3 Hours and More []

4) What is the period of time you prefer to spend on your mobile phone?

a) Before college hours []

b) After college hours []

c) During college hours []

d) During leisure time []

e) At Late night []

f) Other []

5) Among the followings what purpose do you use your mobile phone? (you can select more than one option)

a) Phone Calls [] b) Surfing Internet [] c) YouTube [] d) Social media []

e) WhatsApp [] f) Email [] g) Education [] h) Noting down notes on memo and calendar features [] i) for finding Vocabulary in mobile dictionary []

j) Clicking Pictures through Camera [] k) Other _____

6) Do you use your mobile phone for Education purpose?

a) Yes []

b) No []

7) If yes....while using mobile phone for Education, which from following topics do you explore on your mobile phone? (You can mark more than one option)

a) English language learning []

b) Soft Skills development []

c) For developing listening skills []

d) For Developing reading Skills []

e) For Developing Speaking Skills []

f) For developing presentation Skills []

g) For reading concerned curriculum subjects

h) Research []

i) Subjects related lectures []

j) Preparing for Competitive Examinations []

k) For Career selection []

l) Exploring E-libraries []

m) For playing Video games []

N) All []

8) Do you use your mobile phone for Language learning purpose?

a) Yes []

b) no []

9) If yes, Which Language skill do you learn with the help of Mobile phone? (you can select more than one option)

a) Grammar []

b) Speaking []

c) Listening []

d) Reading []

e) Writing []

f) Any other []

10) How do you solve language related questions such as getting meaning of vocabulary, looking for grammar matter etc.?

a) Google []

b) Through downloaded language application []

c) Through direct website []

d) Through book []

e) Any other []

11) Have you downloaded applications related to English language on your mobile phone?

a) Yes []

b) No []

12) If yes.....How many applications related to English language have you downloaded on your mobile phone?

a) 1 [] **b)** 2 [] **c)** 3 [] **d)** 4 and more []

13) Since how long have you been using English language application on your mobile phone?

a) 3 Months []

b) 6 Months []

c) 1 Year []

d) 2 Years and more []

14) Which language do you prefer more for exchanging text through your mobile phone?

a) English []

b) Gujarati []

c) Hindi []

d) Bilingual (English, Gujarati or Hindi) []

e) Any other []

Agree /Disagree situatio

Situation	Strongly disagree	disagree	Undecided	Agree	Strongly Agree
15. The use of mobile phone enhances (improves) the English learning process.					
16. Using Mobile phone is easier than desktop.					
17. The features of Mobile phone such as Internet browsing/Applications/ Music/ text messaging/ Gaming/ Camera and other utilities play an important role for providing an exposure for learning English.					
18. Surfing websites and social network applications such as WhatsApp face book etc. on mobile phone are easier than surfing the same on desktop and laptop.					
19. The regular use of Mobile phone in reading messages and listening to informative video improves listening as well as reading skills of English language.					
20. The regular use of Mobile phone in taxing messages via SMS service or Social media services such as WhatsApp, Instagram, face book etc. improve written skills of English language.					
21. The use of mobile phone in English language learning Apps gives more exposure in learning English.					

22. Rate the contribution of Mobile assisted language learning in improving the followings.

	Good	Better	Average	Best	Excellent
Listening					
Speaking					
Reading					
Writing					
Improving Vocabulary					
Improving pronunciation					
Improving presentation skills					
Entrepreneurial Skills					
Reasoning Skills					
Learning habits					
Improving logical skills					
Improving general knowledge					
Improving competitive skills					

23. Rate the contribution of Class-room /traditional method for the improving the followings.

	Good	Better	Average	Best	Excellent
Listening					
Speaking					
Reading					
Writing					
Improving Vocabulary					
Improving pronunciation					
Improving presentation skills					
Entrepreneurial Skills					
Reasoning Skills					
Learning habits					
Improving logical skills					
Improving general knowledge					
Improving competitive skills					

24) Select your more preferable Class-room /traditional method for the improving the followings.

	Good	Better	Average	Best	Excellent
Easy of Learning					
Content					
Writing Skill					
Engagement Level					
Convenience					
Overall Satisfaction					

25) Select your more preferable Mobile assisted language learning for the improving the followings

	Good	Better	Average	Best	Excellent
Easy of Learning					
Content					
Writing Skill					
Engagement Level					
Convenience					
Overall Satisfaction					

Appendix E

Questionnaire response Table

Total response: 512

Total Colleges covered: 13

1) Do you have mobile phone?

Yes	512	100%
No	0	0%

2) Which type of Mobile phone do you use?

Android Phone	512	504	98.44%
Simple Telephony Phone	512	00	00%
Window Phone	512	01	0.1953%
I Phone	512	05	0.9766%
) Other	512	02	0.3906%

3) How much time do you spend every day on your mobile phone?

30 minutes	512	22	4.30%
1 Hour	512	187	36.52%
2 Hours	512	183	35.74%
3 Hours and More	512	120	23.44%

4) What is the period of time you prefer to spend on your mobile phone?

Before college hours	512	160	18.9%
After college hours	512	262	31.0%
During college hours	512	29	3.4%
During leisure time	512	214	25.3%
At Late night	512	174	20.6%
Other	512	7	0.8%

5) Among the followings what purpose do you use your mobile phone? (you can select more than one option)

Description	Total Respondents	Frequency of Users	% of Users
Phone Calls	512	509	99.4
Surfing Internet	512	213	41.6
YouTube	512	277	54.1
Social Media	512	280	54.7
WhatsApp	512	327	64
Email	512	123	24
Education	512	242	47.3
Noting down notes, memo& calendar features	512	410	80.1
Access of Vocabulary through mobile dictionary	512	50	9.8
Clicking Pictures	512	195	38.1
Other	512	12	2.3

6) Do you use your mobile phone for Education purpose?

Yes	512	503	98.24%
No	512	09	1.76%

7) If yes....while using mobile phone for Education, which from following topics do you explore on your mobile phone? (You can mark more than one option)

		Total Respondents	Frequency of Users	% of Users	
8) you your	Soft Skills development	512	256	50.0	Do use
	For developing listening skills	512	118	23.0	
	For Developing reading Skills	512	290	56.6	
	For Developing Speaking Skills	512	289	56.4	
	For developing presentation Skills	512	291	56.8	
	Research	512	66	12.9	
	Subject related lectures	512	137	26.8	
	Preparing for Competitive Examinations	512	205	40.0	
	For Career selection	512	77	15.0	
	Exploring E-libraries	512	112	21.9	
	For playing Video games	512	57	11.1	
	All		113	22.1	

mobile phone for Language learning purpose?

Yes	512	470	91.80%
No	512	42	8.20%

9) If yes, Which Language skill do you learn with the help of Mobile phone? (you can select more than one option)

Description	Total Respondents	Frequency of Users	% of Users
Grammar	512	35	6.8
Speaking	512	200	39.0
Listening	512	294	57.3
Reading	512	195	38.0
Writing	512	340	66.3
Any other	512	270	52.6

10) How do you solve language related questions such as getting meaning of vocabulary, looking for grammar matter etc.?

Description	Total Respondents	Frequency of Users	% of Users
Google	512	466	91%
Through direct website	512	86	16.8
Through book	512	71	13.9
Any other	512	66	12.9

11) Have you downloaded applications related to English language on your mobile phone?

Yes	512	442	86.33%
No	512	70	13.67%

12) If yes.....How many applications related to English language have you downloaded on your mobile phone?

No of Applications	Total no of respondents	No. of Respondents Downloaded application	Percentage
1	512	223	50%
2	512	169	38%
3	512	32	7%
4 And more	512	18	5%
Total		442	100.00%

13) Since how long have you been using English language application on your mobile phone?

No of Applications	Total no of respondents	No of Respondents Downloaded application	Percentage
3 Months	512	117	22.9%
6 Months	512	134	26.02%
1 Year	512	209	40.08%
2 Years and more	512	52	10.16%
Total		512	100.00%

14) Which language do you prefer more for exchanging text through your mobile phone?

Language	Total No of Respondents	No of Respondents	%
English	512	343	67%
Gujarati	512	45	9%
Hindi	512	6	1%
Bilingual	512	114	22%
Any other	512	4	1%
Total	512	512	100%

Agree /Disagree situation

Situation	Strongly disagree	disagree	Undecided	Agree	Strongly Agree
15. The use of mobile phone enhances (improves) the English learning process.	37	11	29	203	232
16. Using Mobile phone is easier than desktop.	42	25	38	172	235
17. The features of Mobile phone such as Internet browsing/Applications/ Music/ text messaging/ Gaming/ Camera and other utilities play an important role for providing an exposure for learning English.	37	11	29	215	220
18. Surfing websites and social network applications such as WhatsApp face book etc. on mobile phone are easier than surfing the same on desktop and laptop.	36	11	47	201	217
19. The regular use of Mobile phone in reading messages and listening to informative video improves listening as well as reading skills of English language.	37	9	17	210	239
20. The regular use of Mobile phone in taxing messages via SMS service or Social media services such as WhatsApp, Instagram, face book etc. improve written skills of English language.	39	38	29	190	216
21. The use of mobile phone in English language learning Apps gives more exposure in learning English.	36	6	42	208	220

22) . Rate the contribution of Mobile assisted language learning in improving the followings.

Skills	Average	Best	Better	Excellent	Good	Total
Listening	63	52	72	244	81	512
in %	12	10	14	48	16	100
Speaking	50	52	81	255	74	512
in %	10	10	16	50	14	100
Reading	81	39	72	242	78	512
in %	16	8	14	47	15	100
Writing	82	53	66	236	75	512
in %	16	10	13	46	15	100
Improving Vocabulary	76	55	72	236	73	512
in %	15	11	14	46	14	100
Improving Pronunciation	83	77	72	208	72	512
in %	16	15	14	41	14	100
presentation skills	83	82	60	209	78	512
in %	16	16	12	41	15	100
Entrepreneurial Skills	92	75	66	196	83	512
in %	18	15	13	38	16	100
Reasoning Skills	95	69	74	202	72	512
in %	19	13	14	39	14	100
Learning habits	60	87	88	216	61	512
in %	12	17	17	42	12	100
Improving logical skills	66	81	63	228	74	512
in %	13	16	12	45	14	100
General knowledge	50	87	67	247	61	512
in %	10	17	13	48	12	100
Competitive Skills	54	77	74	239	68	512
in %	11	15	14	47	13	100

23) Rate the contribution of Class-room /traditional method for the improving the followings.

	Average	Best	Better	Excellent	Good	Grand Total
Listening	63.0	37.0	211.0	44.0	157.0	512.0
in %	12.3	7.2	41.2	8.6	30.7	100.0
Speaking	58.0	45.0	241.0	54.0	114.0	512.0
in %	11.3	8.8	47.1	10.5	22.3	100.0
Reading	72.0	51.0	183.0	55.0	151.0	512.0
in %	14.1	10.0	35.7	10.7	29.5	100.0
Writing	69.0	57.0	195.0	38.0	153.0	512.0
in %	13.5	11.1	38.1	7.4	29.9	100.0
Improving Vocabulary	78.0	47.0	183.0	32.0	172.0	512.0
in %	15.2	9.2	35.7	6.3	33.6	100.0
Improving pronunciation	74.0	53.0	202.0	29.0	154.0	512.0
in %	14.5	10.4	39.5	5.7	30.1	100.0
Improving presentation skills	81.0	47.0	193.0	36.0	155.0	512.0
in %	15.8	9.2	37.7	7.0	30.3	100.0
Entrepreneurial Skills	77.0	47.0	190.0	22.0	176.0	512.0
in %	15.0	9.2	37.1	4.3	34.4	100.0
Reasoning Skills	88.0	39.0	175.0	38.0	172.0	512.0
in %	17.2	7.6	34.2	7.4	33.6	100.0
Learning habits	66.0	60.0	182.0	40.0	164.0	512.0
in %	12.9	11.7	35.5	7.8	32.0	100.0
Improving logical skills	83.0	46.0	182.0	49.0	152.0	512.0
in %	16.2	9.0	35.5	9.6	29.7	100.0
Improving general knowledge	68.0	47.0	209.0	43.0	145.0	512.0
in %	13.3	9.2	40.8	8.4	28.3	100.0
Improving competitive skills	74.0	42.0	182.0	46.0	168.0	512.0
in %	14.5	8.2	35.5	9.0	32.8	100.0

24) Select your more preferable Class-room /traditional method for the improving the followings.

	Easy of Learning	Content	Writing Skill	Engagement Level	Convenience	Overall Satisfaction
Average	86	84	87	95	88	88
Best	53	50	55	53	58	58
Better	194	228	189	194	165	158
Excellent	31	30	46	30	28	39
Good	148	120	135	140	173	169
Grand Total	512	512	512	512	512	512

25) Select your more preferable Mobile assisted language learning for the improving the followings

	Easy of Learning	Content	Writing Skill	Engagement Level	Convenience	Overall Satisfaction
Average	50	48	77	81	76	69
Best	34	45	41	44	46	42
Better	49	81	62	57	57	47
Excellent	272	267	257	254	263	316
Good	107	71	75	76	70	38
Grand Total	512	512	512	512	512	512

Appendix F

Edmodo Guidelines

- ▶ Download Edmodo Application from Google Play Store or iOS apple store.
- ▶ Enter the class-code provided by teacher
- ▶ Enter your full name and password
- ▶ Read the instructions given by teacher in task, assignment or exercise.
- ▶ Respond to task by selecting submission option at the top right corner.
- ▶ Submit the assignment to teacher only. Don't submit to whole group if not necessary.
- ▶ Your person message and suggestions should not be posted to whole group. You can post your query or suggestion to the teacher only.
- ▶ Strictly observe the dead line of submission.
- ▶ Never use SMS language such as U, R , txtng, etc. Don't spoil the formation of correct spelling. This is a language learning platform so learn language correctly and appropriately.
- ▶ Never use Edmodo as social networking sites like Face book. Avoid uploading unnecessary audio and video.
- ▶ Select the Parent Code icon next to the student account. This would enable your parents to view each and every activity you perform on Edmodo.

Appendix G Activity Module

Listening Activity

Listening Activity 1

Listen to the following conversation and answer the question given below

A: Do you know literacy criteria in 21st century?

B: Ya... it is the same as it was in 20th century.

A: You mean literate person means that person who can read, write and speak language!

B: What else you want to say....

A: O my God....Still you are living in 20th Century!

B: See, whatever you want to say. Please say in simple way so that I can understand.

A: I am shocked to say that you are living in the world of technology. The definition of literate person is amended. It means that literate person is that person who can read, write speak as well as possess knowledge of technology.

B: I agree with you but it is also the fact that in present education institutes there are so many persons who still are unaware to technology.

A: That's why there are a lot of effort for educationist as well as government has been working in direction to make the people aware regarding the importance of technology in the education.

B: Yes .The series of seminars, workshops and conference are the witness of revolutionary efforts of Educationalists and Government.

A: Now it seems that you have understood my point of view.

B: I knew it well. I was just checking either you live in 21st century or 20th century.

A: So what have you checked?

B: That you are in.

A: I am in means aware about today's demand.

B: Alright. Let's leave it and see you ...

A: See you.

Questions

1) Who is called literate person in 20th century?

A) A person who can read and write language.

B) A person who can speak language.

- C) A person who can speak, read and write
- 2) Who is called literate person in 21st century?
- A) A person, who can speak read and write language.
- B) A person, who can speak, read, write language as well as possess knowledge of Technology
- C) A person who can speak and write language.
- 3) What efforts have been made by government and educationalist to increase the importance of Technology in Education?
- A) Have been organizing research programmes
- B) Have arranged the series of seminars, workshops and conference
- C) Motivated students to learn technology

Answers

- 1) Who is called literate person in 20th century?

Answer:

A) A person who can read and write language.

- 2) Who is called literate person in 21st century?

Answer:

B) A person who can speak, read, write language as well as possess knowledge of Technology

3) What efforts have been made by government and educationalist to increase the importance of Technology in Education?

Answer:

B) Have arranged the series of seminars, workshops and conference

Listening Activity 2

Listen to the following conversation and answer the question given below.

A: Aman. After a long time I have met you.

B: Yes. What's going on, Saral ?

A: Not much. What a surprise to see you here."

B: Yes. It's been a couple of months since I saw you.

A: What have you been up to?

B: I just started to work as a Yoga Trainer.

A: Really? Where?

B: I joined City Yoga Club last month.

A: What do you mostly do during your Yoga Sessions?

B: I concentrate mostly on breathing exercise, Asana, and peace giving exercise in the form of concentration.

A: I should join City Club.

B: It's good; it is a great feeling when you realize the effect of Yoga on your body.

A: I do little yoga at home but I am unaware about the systemic steps of doing Yoga properly.

B: Doing Yoga at home is hard. The environment is not suited for Yoga too.

A: If I want to do Yoga properly, I will need to join City club.

B: Do come. I used to be at City club during morning sessions.

A: This would be better. Even I don't have time for the evening sessions.

B: All right. See you on tomorrow morning.

A: Yes. I will.

B: O.K. Bye.

Questions

1) What does Saral teach at City Club?

A) Aerobic exercise

B) Yoga exercise

C) Gym exercise

2) Types of Yoga exercise to be taught by Saral are...

A) Breathing, Concentration and Gym

B) Breathing, Asana and Concentration

C) Running and Jogging

3) Which is the better time yoga is suggested?

A) Evening

- B) Afternoon
- C) Morning

Answers

1) What does Saral do at City Club?

Answer:

B) Yoga exercise

2) Types of Yoga exercise to be taught by Saral are...

Answer:

B) Breathing, Asana and Concentration

3) Which is the better time yoga is suggested?

Answer:

C) Morning

Listening Activity 3

Listen to the following conversation and fill in the gaps given below.

A: Mom, what have you prepared for lunch today?

B: so many ...Dal fry, rice, mixed vegetable fries.

A: Oh no..Again vegetable fries!

B: You know, 'vegetable fries' is one of the favourite dishes of your Papa.

A: I haven't seen papa anywhere? Today is Sunday and even though he has gone somewhere!

B: Your papa has gone to market to bring some surprise for you.

A: Really! Please Mom, tell me what surprise that papa wants to give me?

B: it is surprise and that cannot be revealed.

A: Oh! Come on Mom, If you reveal, I will eat whatever you have cooked.

B: In that case don't eat because surprise is food item. Now don't ask me which?

A: Wow! Thank you Mom and Thanks to Papa in advance. I like market food especially on Sundays.

Exercise

1) Which dishes were prepared by Mother?

- A) Dal fry and Chapati
- B) Dal Fry and Jira rice
- C) Dal Fry ,Jira rice and vegetable fry

2) Vegetable fry is favourite dish of ____

- A) Father
- B) Mother
- C) Daughter

3) What is surprise for daughter?

- A) Toy
- B) Market food
- C) Cloth

Answers

1) Which dishes were prepared by Mother?

Answer:

- C) Dal Fry, Jira rice and vegetable fry

2) Vegetable fry is favourite dish of ____

Answer:

- A) Father

3) What is surprise for daughter?

Answer:

- B) Market food

Listening Activity 4

Listen to the following conversation and fill in the gaps given below.

A: Hey Amar, have you not registered for classes yet?

B: I am going to register on Friday.

A: What classes do you plan to join?

B: I really want to join the communication class, but I don't know if it will be available.

A: Is that class really that popular?

B: Yeah. I tried to get in last semester, but it was full by the time I registered.

A: What other classes are you going to join?

B: Physics and whatever subjects offered along with this group.

A: I took that CS class already. There is a lot of writing, but it's not that bad.

B: Oh really? Who was the instructor?

A: Prof. Khan.

B: Is he kind?

A: "I'm not sure if he is or not, but I thought he was definitely Intelligent.

B: "Do you mind if I ask you what S.P.I. you got?"

A: Not at all. I got a 3.8.

B: Well, what did you get in CS last year?

A: I got a .4.0 grade in that class.

B: Well, Thanks for information.

A: Oh. Thanks.

Exercise

1) When does Amar plan to join extra class?

A) At the end of week

B) On Friday

C) On Monday

2) Which class did Amar miss in the last semester?

A) Physics class

B) Chemistry class

C) Communication class

3) Which SPI did Amar's friend get in the last Semester?

- A) 4.
- B) 3.8
- C) 5

Answers

1) When does Amar plan to join extra class?

Answer:

B) On Friday

2) Which class did Amar miss in the last semester?

Answer:

C) Communication class

3) Which SPI did Amar's friend get in the last Semester?

Answer:

B) 3.8

Listening Activity 5

Listen to the following conversation and answer the question given below.

A: Why do you look upset today?

B: I'm getting sick from work. I can't endure much politics at the job place.

A: Does anybody ask you anything regarding your work?

B: Not yet, but that's not why I am upset. I have come to know that another guy got a promotion. He doesn't know even how to do anything.

A: That's a horrible and unfair too.

B: I am not in position to work smoothly under this pressure.

A: Look at the bright side. At least you have a job.

B: Yeah. I shouldn't stress about this anymore. It's not like I can do anything about it.

A: Exactly. Forget all. Can we have some fun tonight?

B: yeah....what about a party? Let's go to city club.

A: Sure. Keep such positivity. It will make us happy.

B. I will try my level best to maintain positivity.

A: That's good.

B: Thank you.

Exercise

1. What does having pale face represent?
 - A. The face is not short
 - B. The face is narrow but long
 - C. Represents happiness
 - D. Represents unhappiness
2. What happened at work that caused the pale face?
 - A. He got a promotion
 - B. A different person got a promotion
 - C. He got a raise
 - D. He lost his job
3. What topic are they talking about?
 - A. Fun classes at school
 - B. Being busy at work
 - C. Stress from work
 - D. Drinking and partying
4. What do they plan on refreshment?
 - A. Going on picnic
 - B. Going to cinema
 - C. Going to party at city club
 - D. Going to seashore

Answers

1. What does having pale face represent?
Answer:
D) Represents unhappiness
2. What happened at work that caused the pale face?
Answer:
D) Different person got a promotion
3. What topic are they talking about?
Answer:
C) Stress from work
4. What do they plan on refreshment?
Answer:
C) Going to party at city club

Speaking skills

Two Speaking activities were uploaded on Edmodo application .Learners observed them and did practice. Learners were asked to submit their recorded audio on Edmodo application or whats up group.



Source: <http://www.audibletrial.com/mmmEnglish>

Reading Skills:

Reading Activity 1

1.Read the following passage carefully and answer the questions given below :

Every desire, every plan, every bit of knowledge is useless without followed by action. No battle plan has ever won a war, no law ever prevented a crime, and no book ever read itself. Action is the key. Repeat it to yourself over and over again. Action is the key. Do not wait for tomorrow. Tomorrow may never come. Do not wait for the time to be right. The Time is right now. Do not worry about what to do, or how to do it. Just say when. Say now. Begin this moment. This previous moment which will never come again? This priceless day, which will end in just a few hours, must be utilized. Live each day to the fullest through action. Would you be proud to say how you spent today, may be the last of your life. Put your alibis and excuses away. Open up your eyes, your heart, and your mind. Embrace life, laugh and have fun. But most of all, act and act now. Action is the only thing which will reap the rewards you want. It's the single most potent ingredient to success. Do not delay. You have but one life, and you must not waste today, possibly the last and most precious day of your life. Make today the culmination of your desires, plans; and knowledge. Act now and be successful in life.

Questions :

(1) Why is Action the key to everything?

- a) Action is well planned activity
- b) Action is everything.

- c) Action is a procedure of implementation of desire, plan and knowledge.
- d) Action is expected reaction.
- (2) Why should we not waste our today?
- a) Today is great day
- b) Tomorrow will never come.
- c) Today is today.
- d) Each moment has its value and it is priceless.
- (3) What are the author's views about time?
- a) Time is money.
- b) Time is Honey
- c) Each Moment has its importance
- d) Time is God.
- (4) What is the central message of this paragraph?
- a) be positive and do action
- b) Action is the key to success
- c) Don't remain lazy
- d) Action makes man perfect.

Answers

- 1) What are the duties of a salesman?

Answer:

- c) To sell product

- 2) What is the role of the sales management in the business?

Answer:

- b) To the marketing plan into action

- 3) What is expected of a sales executive today?

Answer:

- c) To create market standing and brand image

- 4) Marketing management is part of sales management (True or False)

Answer:

a) T

Reading Activity 2

2. Read the following passage and answer the following the questions.

Sales management is often described as the muscle behind marketing management .In fact; it does much more than providing the muscle. It is sales management that translates the marketing plan into action. Sales management will remain an indispensable and most important part of marketing management as long as corporations employ salesman to win customers and influence their attitudes. In a modern organization, sales management means the management of the total sales efforts, not just the supervision of the salesman. In fact, Sales management is to be viewed as an integrated sub-system of marketing management.

The modern Sales executive has to assume total responsibility for planning, directing and controlling the personal selling of the firm. His prime responsibility is no doubt in the crucial area of selling but his task does not stop with the achievement of the sales quotas. He has to create market standing and brand image. He is responsible for bringing in the required profits, not merely sales volume.

There are many sales executives who plan and achieve big leaps in sales volume. But it is often at the cost of profits. Sometimes converse happens. Sales executives are over-concerned with gross margins and net profits and miss the volume of Sales. Obviously, a happy balance between the two s required.

Questions:

- 1) What are the duties of a salesman?
 - a) To convince people for buying product
 - b) To supervise customers
 - c) To sell product
 - d) To achieve target as per schedule.
- 2) What is the role of the sales management in the business?
 - a) To convince customers
 - b) To the marketing plan into action
 - c) To keep watch on sales person
 - d) To earn more and more money
- 3) What is expected of a sales executive today?

- a) To understand the customers and their demand.
 - b) To achieve targets of company
 - c) To create market standing and brand image
 - d) To invite authorities for meeting.
- 4) Marketing management is part of sales management (True or False)
- a) True
 - b) False

Answers

(1) Why is Action the key to everything?

Answer:

c) Action is a procedure of implementation of desire, plan and knowledge.

(2) Why should we not waste our today?

Answer:

d) Each moment has its value and it is priceless.

(3) What are the author's views about time?

Answer:

c) Each Moment has its importance

(4) What is the central message of this paragraph?

Answer:

d) Action makes man perfect.

Writing Activity

Writing activity 1

1. It is raining for two days.

Answer: It has been raining for two days.

2. The baby is sleeping for three hours.

Answer: The baby has been sleeping for three hours.

3. I have seen him yesterday.

Answer: I saw him yesterday.

4. He will have returned from London last week.

Answer: He had returned from London last week.

5. I will call you when the dinner will be ready.

Answer: I call you when the dinner will be ready.

6. If you will ask, he will help you.

Answer: If you ask, he will help you.

7. I had written a letter just now.

Answer: I have written a letter just now.

8. He said that he was suffering from fever for three days.

Answer: He said that he has been suffering from fever for last three days.

9. He do not like Panjabi dish.

Answer: He does not like Panjabi dish.

10. When the principal was visiting classroom, the students were making noise.

Answer: When the principal visited classroom, the students were making noise.

Writing Activity 2

1. Politics are an issue in R. K. Narayan's The Man-eater of Malgudi.

Answer: Politics is an issue in R.K. Narayan's The Man-eater of Malgudi.

2. Salman Rushdie's Midnight's Children are my favourite novel.

Answer: Salman Rushdie's Midnight's Children is my favourite novel.

3. Neither Edna's neighbours nor her husband agree with her decision.

Answer: Neither Edna's neighbours nor her husband agrees with her decision.

4. One of my friends like to cook Italian food.

Answer: One of my friends likes to cook Italian food

5. There is many reasons to disagree about politics.

Answer: There are many reasons to disagree about politics.

6. Colours of the rainbow is attractive.

Answer: Colours of the rainbow are attractive.

7. Some of the cake were left on the table.

Answer: Some of the cake was left on the table

Writing Activity 3

1. Jim and Sally are proud of his and her new son.

Answer: Jim and Sally are proud of their new son.

2. Those boxes have unbroken lids, but these need to have its lids replaced.

Answer: Those boxes have unbroken lids, but these need to have its lids replaced.

3. Everybody needs to bring their assignment to class.

Answer: Everybody needs to bring his or her assignment to class.

4. Everyone returned his books to the library.

Answer: Everyone returned their books to the library

5. The staff have submitted its reports.

Answer: The staffs have submitted their reports.

(e) Articles:

6. We live in (a/an)village.

Answer: We live in a village.

7.. He is (a, an, the) best player in the team

Answer: He is the best player in the team

8. The iron is (a ,an) useful metal.

Answer: The iron is a useful metal.

9. The man is waiting at (a, an, the) pre-decided place.

Answer: The man is waiting at the pre-decided place.

10. Paris is (an ,a) European city.

Answer: Paris is a European city.

Writing Activity 4

1. The child ate a cold dish of ice-cream for breakfast this morning.

Answer: The child ate a cold ice-cream dish for breakfast this morning.

2. The torn student's book lay on the desk.

Answer: The student's torn book lay on the desk.

3. Just Rustom was picked to host the program.

Answer: Rustom was just picked to host the program

4. We ate the lunch that we had brought slowly.

Answer: We ate the lunch slowly that we had brought.

5. The three bankers talked quietly in the corner smoking cigarettes.

Answer: The three bankers, smoking cigarettes, talked quietly in the corner

6. Send this letter on my new address.

Answer: Send this letter at my new address.

7. He goes in the school.

Answer: He goes to the school.

8. I cannot agree to you in this situation.

Answer: I cannot agree with you in this situation.

9. The flights will depart in 8.00 pm

Answer: The flights will depart at 8.00 pm

10. He reached at the airport at 3 pm.

Answer: He reached to the airport at 3 pm

Writing Activity 5

1. They replied back yesterday

Answer: They replied yesterday

2. Could you repeat that again, please?

Answer: Could you repeat that, please?

3. Raj returned back from Bombay yesterday.

Answer: Raj returned from Bombay yesterday

4. Do you have any cash money?

Answer: Do you have any case?

5. Your dress is very unique!

Answer: Your dress is unique!

6. The accused was guilty of false misstatement.

Answer: The accused was guilty of misstatement

7. Have you read the latest biography of Indira Gandhi's life?.

Answer: Have you read the latest biography of Indira Gandhi?

Appendix H

Colleges covered for circulation of Questionnaire

The questionnaire has been made to check the usage habit of mobile device among engineering students of Gujarat. Random selection method was adopted to select the colleges for this purpose. The questionnaire has been circulated via Google form to 12 GTU affiliated colleges. Among these twelve colleges, two or three colleges were randomly selected from each Zone of GTU. The zone wise list is as follow:

Gandhinagar Zone:

- 1) Shankersinh Vaghela Bapu Institute of Technology, Vasan, Gandhinagar
- 2) Gujarat Power Engineering and Research institute, Mevad, Mehsana.
- 3) Government Engineering College, Modasa

Ahmedabad Zone:

- 1) L. J. Institute of engineering and technology, Ahmedabad.
- 2) SAL Institute of Technology and Engineering Research, Ahmedabad

Rajkot Zone

- 1) Marvadi Education Foundation, Engineering discipline, Rajkot
- 2) OM Engineering College, Junagadh
- 3) Noble engineering college

Vidyanagar Zone:

- 1) Birla Vishwakarma Mahavidyalaya, Vidyanagar
- 2) Neo Institute of Technology, Baroda
- 3) G H Patel Engineering Vidyanagar

Surat Zone:

- 1) Government Engineering College, valsad
- 2) Dr.S.& S. S. Gandhi Government Engineering College, Surat

Appendix I Attendance Sheet of Pre-Test & Post test

Pre test scheduled on 22/2/2020 at SVBIT

Topic : Effectiveness of Mobile Assisted Language learning				
Pre test Assessment SVBIT				
Attendance sheet			date of test: 22/2/2019	
Sr. no.	College	Branch	Enrollment No.	Sign of Student
1	SVBIT	IT	180750116001	mahendrag
2	SVBIT	IT	180750116004	shripal
3	SVBIT	IT	180750116005	vikas
4	SVBIT	IT	180750116007	nikhilesh
5	SVBIT	IT	180750116008	pranav
6	SVBIT	IT	180750116009	pranav
7	SVBIT	IT	180750116010	sunil
8	SVBIT	IT	180750116011	Nikhil
9	SVBIT	IT	180750116013	akash
10	SVBIT	IT	180750116014	pranshu
11	SVBIT	IT	180750116015	vikas
12	SVBIT	IT	180750116016	Nikhil
13	SVBIT	IT	180750116017	Kamlesh
14	SVBIT	IT	180750116018	Raj
15	SVBIT	IT	180750116019	RD
16	SVBIT	IT	180750116020	Shashank
17	SVBIT	IT	180750116021	M. Patel
18	SVBIT	IT	180750116022	Pratik
19	SVBIT	IT	180750116023	Sailesh
20	SVBIT	IT	180750116026	Pranesh Patel
21	SVBIT	IT	180750116027	Pranav
22	SVBIT	IT	180750116028	Pranav
23	SVBIT	IT	180750116029	Pranav
24	SVBIT	IT	180750116030	Pranav
25	SVBIT	IT	180750116031	Pranav
26	SVBIT	Civil	180750106002	Pranav
27	SVBIT	Civil	180750106004	Pranav
28	SVBIT	Civil	180750106006	Pranav
29	SVBIT	Civil	180750106010	Pranav
30	SVBIT	Civil	180750106011	Pranav
31	SVBIT	ME	180750119001	Pranav
32	SVBIT	ME	180750119003	Pranav
33	SVBIT	ME	180750119004	Pranav
34	SVBIT	ME	180750119005	Pranav
35	SVBIT	ME	180750119006	S.K. Patel
36	SVBIT	ME	180750119009	A.P. Rajee
37	SVBIT	ME	180750119010	Pranav
38	SVBIT	CE	180750107036	Pranav
39	SVBIT	CE	180750107006	Pranav
40	SVBIT	CE	180750107010	Pranav

Pre test scheduled on 25/2/2019 at GPERI

Topic : Effectiveness of Mobile Assisted Language learning				
Pre test Assessment GPERI				
Attendance sheet			date of test: 25/2/2019	
Sr. no.	College	Branch	Enrollment No.	Sign of Student
1	GPERI	COMP	181040107002	Ayush P. Desai
2	GPERI	COMP	181040107003	Jane
3	GPERI	COMP	181040107004	(M) Hasan
4	GPERI	COMP	181040107006	Abhishek
5	GPERI	COMP	181040107007	ADNY
6	GPERI	COMP	181040107008	Shrodi
7	GPERI	COMP	181040107009	M.K. Modi
8	GPERI	COMP	181040107010	Wn
9	GPERI	COMP	181040107011	Rushabh
10	GPERI	COMP	181040107012	Vin. Modi
11	GPERI	COMP	181040107013	M.J. Nayi
12	GPERI	COMP	181040107014	N.A. Nayi
13	GPERI	COMP	181040107015	Amish
14	GPERI	COMP	181040107016	Shru
15	GPERI	COMP	181040107017	P.N. Gaj
16	GPERI	COMP	181040107018	Vin. Modi
17	GPERI	COMP	181040107019	D.K. Patel
18	GPERI	COMP	181040107020	H.M. Patel
19	GPERI	COMP	181040107021	Kalpat
20	GPERI	COMP	181040107022	Tsetu
21	GPERI	COMP	181040107023	Vinay
22	GPERI	COMP	181040107024	J.K. Patel
23	GPERI	COMP	181040107025	K.D. Patel
24	GPERI	COMP	181040107026	Krush
25	GPERI	COMP	181040107027	Harsh
26	GPERI	COMP	181040107029	M.M. Patil
27	GPERI	COMP	181040107030	Minku
28	GPERI	COMP	181040107031	H.V. Modi
29	GPERI	COMP	181040107032	Glatal
30	GPERI	COMP	181040107033	Om
31	GPERI	COMP	181040107034	Savan
32	GPERI	COMP	181040107035	Harsh
33	GPERI	COMP	181040107036	Vinay
34	GPERI	COMP	181040107037	Harsh
35	GPERI	COMP	181040107038	Amish
36	GPERI	COMP	181040107040	Ravi
37	GPERI	COMP	181040107041	A.P. Raj
38	GPERI	COMP	181040107042	Harsh
39	GPERI	COMP	181040107043	Harsh
40	GPERI	COMP	181040107044	Utkarsh
41	GPERI	COMP	181040107046	Radu

Post test Scheduled on 22/5/2020 at SVBIT

Topic : Effectiveness of Mobile Assisted Language learning				
Post test Assessment SVBIT				
Attendance sheet			date of test: 22/5/2019	
Sr. no.	College	Branch	Enrollment No.	Sign of Student
1	SVBIT	IT	180750116001	Mahendra
2	SVBIT	IT	180750116004	Shripatey
3	SVBIT	IT	180750116005	K.K.M
4	SVBIT	IT	180750116007	Nirali
5	SVBIT	IT	180750116008	Poo
6	SVBIT	IT	180750116009	Ravi
7	SVBIT	IT	180750116010	Sunil
8	SVBIT	IT	180750116011	Ashish
9	SVBIT	IT	180750116013	Ashish
10	SVBIT	IT	180750116014	Pranshu
11	SVBIT	IT	180750116015	Vijay
12	SVBIT	IT	180750116016	Vishu
13	SVBIT	IT	180750116017	Kaushal
14	SVBIT	IT	180750116018	R.D
15	SVBIT	IT	180750116019	R.D
16	SVBIT	IT	180750116020	Dharmu
17	SVBIT	IT	180750116021	M.M. Patel
18	SVBIT	IT	180750116022	Jyoti
19	SVBIT	IT	180750116023	Satish
20	SVBIT	IT	180750116026	Panchi Patel
21	SVBIT	IT	180750116027	Jyoti
22	SVBIT	IT	180750116028	Jyoti
23	SVBIT	IT	180750116029	Ashish
24	SVBIT	IT	180750116030	Prashant
25	SVBIT	IT	180750116031	Prashant
26	SVBIT	Civil	180750106002	Vishu
27	SVBIT	Civil	180750106004	Prashant
28	SVBIT	Civil	180750106006	Kishor
29	SVBIT	Civil	180750106010	Zain
30	SVBIT	Civil	180750106011	Prashant
31	SVBIT	ME	180750119001	Helmi
32	SVBIT	ME	180750119003	Helmi
33	SVBIT	ME	180750119004	Helmi
34	SVBIT	ME	180750119005	Keerthi
35	SVBIT	ME	180750119006	S.K. Patel
36	SVBIT	ME	180750119009	A.P. Raju
37	SVBIT	ME	180750119010	Helmi
38	SVBIT	CE	180750107036	MM
39	*SVBIT	CE	180750107006	Shri Patel
40	SVBIT	CE	180750107010	Prashant

Post Test Scheduled on 27/6/2020 at GPERI

Topic : Effectiveness of Mobile Assisted Language learning				
Post test Assessment GPERI				
Attendance sheet			date of test: 27/5/2019	
Sr. no.	College	Branch	Enrollment No.	Sign of Student
1	GPERI	CE	181040107002	Aqush I Dary
2	GPERI	CE	181040107003	Janey
3	GPERI	CE	181040107004	M. Isaran
4	GPERI	CE	181040107006	Sub
5	GPERI	CE	181040107007	APM
6	GPERI	CE	181040107008	Sinodi
7	GPERI	CE	181040107009	M. J. M. M.
8	GPERI	CE	181040107010	N.S.
9	GPERI	CE	181040107011	Rushern
10	GPERI	CE	181040107012	V.N. M. M.
11	GPERI	CE	181040107013	M. N. N.
12	GPERI	CE	181040107014	N. A. N.
13	GPERI	CE	181040107015	A. M.
14	GPERI	CE	181040107016	S. S.
15	GPERI	CE	181040107017	A. P.
16	GPERI	CE	181040107018	V. S.
17	GPERI	CE	181040107019	P. Patel
18	GPERI	CE	181040107020	M. M. Patel
19	GPERI	CE	181040107021	H. Patel
20	GPERI	CE	181040107022	J. Patel
21	GPERI	CE	181040107023	V. Patel
22	GPERI	CE	181040107024	J. K. Patel
23	GPERI	CE	181040107025	K. D. Patel
24	GPERI	CE	181040107026	K. S.
25	GPERI	CE	181040107027	M. S.
26	GPERI	CE	181040107029	M. M. Patel
27	GPERI	CE	181040107030	V. Patel
28	GPERI	CE	181040107031	V. Patel
29	GPERI	CE	181040107032	P. Patel
30	GPERI	CE	181040107033	S. M.
31	GPERI	CE	181040107034	S. M.
32	GPERI	CE	181040107035	J. Patel
33	GPERI	CE	181040107036	J. Patel
34	GPERI	CE	181040107037	J. Patel
35	GPERI	CE	181040107038	V. Patel
36	GPERI	CE	181040107040	R. Patel
37	GPERI	CE	181040107041	A. P. R.
38	GPERI	CE	181040107042	H. Patel
39	GPERI	CE	181040107043	V. Patel
40	GPERI	CE	181040107044	V. Patel

Appendix J

Example of Pre-Post Test

Example of Pre Test GPERI

27/40
24/10/19

Pre -Test

Topic: Effectiveness of Mobile assisted language learning among engineering students of Gujarat

Name of Institute: GUJARAT PIONEER ENGINEERING AND RESEARCH INSTITUTE.

Enrolment Number: 18104107035

Semester: II

Branch: COMPUTER

Mobile Number: 91 8347 215646

Email Address: firsthpotel.8697@gmail.com

Date of Test: 25-2-2019

Signature of Student: [Signature]

$L \frac{S}{4} R \frac{W}{5} 14 \frac{14}{20} = \frac{27}{40}$

Instructions:

- 1) Read the instructions written below each activity
- 2) Do all the activities as per instructions.
- 3) Mobile phone is allowed to use while performing speaking activities.

Listening Skills

Listen to the paragraph to be dictated by your teacher and complete the paragraph given.

The Trojan War is one of the most famous wars in history. It is well known for the 10 year duration, for the loss of a number of legendary characters, and for the Trojan horse. What may not be familiar, however, is the story of how the war began.

According to Greek myth, the strife between the Trojans and the Greeks started at the wedding of Peleus, King of Thessaly, and Thetis, a sea nymph. All of the gods and goddesses had been invited to the wedding celebration in Troy except Eris, goddess of discord. She had been invited from the guest list because her presence brings potential trouble and commercial strife to conflict.

To take revenge on those who had slighted her, Eris decided to cause a stir with the middle of the banquet hall. She threw a golden apple marked "for the most beautiful" all of the goddesses began to bicker over who should possess it. The gods and goddesses picked a stalemate when the choice was narrowed to Helen, the most beautiful woman in the world, wife of King Priam of Troy, who was said to be a good judge of beauty. Paris, did not have any job. Each goddess began to talk to Paris to win the golden apple.

Speaking Skill

1) At the College

Observe the following conversation and perform the role play in pairs.

Pris: Do you do exercise every day?

Mohan: Sometimes. It depends on the work load.

Pris: Work load... What type of work load do you have?

Mohan: See, I work in multinational company. Everyday our working hours is fixed but workload is allowed to talk so that we need to work at home too.

Pris: This is a nice idea of all the work in so called high cultural world.

Mohan: Yeah. Agree but in compare to local company, they pay high too.

Pris: What is use of money if it matches at the moments of enjoyment from life?

Mohan: What enjoyment do you do with handful of money?

Pris: I am happy with limited income and money.

Mohan: If you are happy, the issue is over. There not 1 any and of this talk. See you tomorrow.

Pris: O.K. See and spare some time for your body too.

Mohan: bye-bye

2) Observe the following conversation and record it in pair on your mobile phone.

At the railway station

Raman: Excuse me please!

Passenger: Yes...

Raman: Hello, I am Raman Patel. I need your help.

Passenger: O.K. what help do you need?

Raman: Actually I am unknown to this railway station. Would you tell me the ticket window?

Passenger: On platform number 1. May I know for what purpose you are looking for ticket window?

Raman: For buying ticket.

Passenger: O.K. Do you have mobile phone?

Raman: I have the latest smart phone.

Passenger: Good. Download an application of railway reservation application. Now days we can not only book reservation ticket but also can buy general ticket. So no need to visit ticket window or standing in queue for buying ticket.

Raman: Is it possible? I am under the impression that we can book reservation ticket only.

Passenger: Railway authority has started this facility just now.

Raman: o.k. Thank you for providing such great information.

Passenger: My pleasure.

Raman: Nice to meet you.

Passenger: Same to you. Bye

Reading Skills

Read the following paragraph and select an appropriate option given below.

Ask most people what their biggest fear is and chances are many of them will reply "public speaking". In fact a majority of people would actually rather than have to engage in any form of public presentation. I'm not exaggerating. A couple of years ago, a study of more than 2,000 Brits found that a fear of public speaking was one of society's most pervasive fears. Only the loss of a family member was considered a more terrifying prospect.

As a radio presenter, who naturally enjoys the sound of their own voice (an occupational hazard) this dread has always baffled me somewhat. This was until an email casually popped into my inbox earlier this year, inviting me to do a TED talk at an event in London. Fast forward four months, I was ring the day I emphatically agreed to this offer, as I properly stepped onto a stage at the Museum of London and opened my mouth to speak in front of hundreds of people in the audience.

For the uninitiated, TED talks are a global phenomenon. TED stands for Technology, Entertainment and Design and what started out as a small group of people from these different fields sharing their most compelling ideas at a gathering in California 30 years ago, has now internationalized hundreds of conferences around the world and thousands of inspirational and motivational talks online. TED

Writing Skills

(i) None of above

1. Circle the correct form of the verb tense and indicate the rule that determines the correct answer.

1. I am sure that both Catherine and Eric are coming to visit this weekend.
2. The strikers begin in the top dock strike.
3. Neither the twins nor their brother has had over seas since.
4. Some of the fruit has already begun to ripen.
5. The news reported by the president of the college was considered bad by most people.

2. Identify the common errors and rewrite the sentences:

Observe the article "a, an, the" as per the requirement.

- 1) We live in village. in a village
- 2) He is best player in the team. He is the best player in the team.
- 3) The team is an useful metal. It was an a useful metal.
- 4) The man is married. His wife is a beautiful.
- 5) Station is an university town. The station is a university town.

Observe Preposition as per requirement.

1) Send this letter on my new address. Send this letter to my new address.

2) He goes in the school. He goes to the school.

3) I have been ill for two weeks. I have been ill for two weeks.

4) I cannot agree with you in this opinion. I cannot agree with you on this opinion.

5) The flight will depart in 8:00 pm. The flight will depart at 8:00 pm.

3. Write a paragraph on importance of mobile device for education.

How mobile device is importance for education?

In the present world of science and technology it is difficult to have any means of communication have changed habits have shifted our behavior altered. These are the changes technology has brought to our society which the different societal institutions have learned to adapt to. But a closer look at our societal institutions reveals that the school system in the country need to be more responsive to these changes.

Example of Pre Test-SVBIT

Pre-Test

Topic: Effectiveness of Mobile Assisted Language Learning among Engineering Students of Gujarat.

Name of Institute: SVBIT

Enrolment Number: 180750107010

Semester: 2nd

Mobile Number: 7984577028

Email Address: parthlakhani122oc@gmail.com

Date of Pre-test: 29-02-2019

Signature of Student: P.R. Lakhani

22
40
21/2/2019

L 5 R W
3 5 2 12
5 10 05 20

22
40
RMS

Instructions:

- 1) Read the instructions written below each activity.
- 2) Do all the activities as per instruction.
- 3) Mobile phone is allowed to use while performing speaking activities.

Listening Skills

Listen to the paragraph to be dictated by your teacher and complete the paragraph given.

The Trojan War is one of the most famous wars in history. It is well known for the 10-year duration, for the heroism of a number of legendary characters, and for the Trojan horse. What may not be familiar, however, is the story of how the war began.

According to Greek myth, the war between the Trojans and the Greeks started at the wedding of Peleus, King of Thessaly, and Thetis, a sea nymph. All of the gods and goddesses had been invited to the wedding celebration in Troy except Eris, goddess of discord. She had been invited from the guest list because her presence always entailed trouble and quarrels.

To take revenge on those who had slighted her, Eris decided to cause a stir, first, in the middle of the banquet hall. She threw a golden apple marked "for the most beautiful." All of the goddesses began to haggle over who should possess it. The god and goddesses reached a stalemate when the choice was narrowed to Hera, Athena, and Aphrodite. Someone was needed to settle the controversy by picking a winner. The job eventually fell to Paris, son of King Priam of Troy, who was said to be a good judge of beauty. Paris did not have an easy job. Each goddess, eager to win the golden apple, tried suggestively to bribe him.

"If I give you vast kingdoms to rule," promised Hera. "Yet kingdoms are nothing in comparison with my gift," intoned Athena. "Choose me and I'll see that you win victory and fame in war," Aphrodite could not let administration, however. She won the golden apple by offering Helen, daughter of Zeus and the most beautiful woman in the land, to Paris. Paris, against his family's wishes, set off for Sparta in Greece.

Although Paris learned that Helen was married, he nevertheless accepted the hospitality of her husband, King Menelaus of Sparta. Therefore, Menelaus was outraged for a number of reasons when Paris departed, taking Helen and much of the king's wealth back to Troy. Menelaus collected his forces and set sail for Troy to begin the war to retrieve Helen.

Exercise:

The Trojan War is one of the most famous wars in history. It is well known for the 10-year duration, for the heroism of a number of legendary characters, and for the Trojan horse. What may not be familiar, however, is the story of how the war began.

According to Greek myth, the war between the Trojans and the Greeks started at the wedding of Peleus, King of Thessaly, and Thetis, a sea nymph. All of the gods and goddesses had been invited to the wedding celebration in Troy except Eris, goddess of discord. She had been invited from the guest list because her presence always entailed trouble and quarrels.

At the railway station

Raman: Excuse me please!
Passenger: Yes...
Raman: Hello, I am Raman Patel. I need your help.
Passenger: O.K. what help do you need?
Raman: Actually I am unknown to this railway station. Would you tell me the ticket station?
Passenger: On platform number 1. May I know for what purpose you are looking for ticket station?

Reading Skills

Read the following paragraph and select an appropriate option given below.

Ask most people what their biggest fear is and chances are many of them will reply "public speaking." In fact a majority of people would actually rather die than have to engage in any form of public presentation. I'm not exaggerating. A couple of years ago, a study of more than 2,000 Brits found that a fear of public speaking was one of society's most pervasive fears. Only the loss of a family member was considered a more terrifying prospect.

As a radio presenter, who naturally enjoys the sound of their own voice (an occupational hazard that should have always baffled me somewhat), that was until an email casually popped into my inbox earlier this year, inviting me to do a TED talk at an event in London. Just several days later, I was sitting at the desk I impulsively agreed to this offer, as I gingerly stepped onto a stage at the Museum of London and opened my mouth to speak in front of hundreds of people in the audience.

For the uninitiated, TED talks are a global phenomenon. TED stands for Technology, Entertainment and Design and what started out as a small group of people from these different fields sharing their most compelling ideas at a gathering in California 19 years ago, has now morphed into one of the world's conferences around the world and thousands of motivational and motivational talks online. TED themselves include everyone from Bill Clinton to Bill Gates. The latter remarkably presaged headlines in 2009 during his talk when he outlined a stream of computer-aided natural disasters in order to make a point about the dangers of inaction. And that sort of stark directness speaks to TED's mission: "Share. Inspire. Spread." a powerful recycling. Only. No pressure there.

Writing Skills

1. Check the correct form of the verb tense and indicate the rule that determines the correct answer.

1. I am sure the both Catherine and Lucy (is, are) coming to visit this weekend.
2. The scientist (is, has) kept the top secret since.
3. Neither the man nor their father (has, have) ever seen stars.
4. Some of the things (is, are) usually happen every year.
5. The news reported the possibility of the collapse (is, are) threatened by most people.

2. Modify the sentence errors and correct the sentence.

1. We live in a village.
2. He is best player in the team.
3. He is the best player in the team.
4. The team is a useful team.
5. The man is a mortal.
6. He is a mortal man.
7. Striking is a university team.
8. He has been ill since two weeks.
9. I cannot agree with you in this change.
10. The flight will depart at 4.30 pm.
11. The flight will depart at 4.30 pm.

3. Write a paragraph on importance of mobile device for education.

For education, mobile devices are very great in use. It is a necessary one that all students should have this device. It is a great help for the science and technology. It is a great invention for those students who use properly some mobile devices. It can help through his device by sharing their notes, assignments about the students to inform the parents.

Question Answer

1) What is the mission that drives TED Talks?
A) Mean worth sharing []
B) Let's talk! [X]
C) Mean worth spreading []
D) Let's share []

2) According to the passage, what are some of society's most pervasive fears?
A) Public Speaking []
B) Death of a family member []
C) Disaster []
D) Both A and B [X]

3) What does "TED" stand for?
A) Talk, Entertainment and design []
B) Technology, Entertainment and design [X]
C) Television, Energy and design []
D) None of above []

Example of Post Test SVBIT

34/40 RRR 24/10/19

Post-Test

Topic: Effectiveness of Mobile assisted language learning among engineering students of Gujarat

Name of Institute: SUBIT

Enrolment Number: 180950109006

Semester: 2nd

Branch: IT

Mobile Number: 7046657955

Email Address: veshupatel1912@gmail.com

Date of Test: 24-05-2019

Signature of Student: DASHY

$$\frac{L}{5} \frac{S}{10} \frac{R}{5} \frac{W}{20} = \frac{34}{40} RRR$$

Instructions

- 1) Read the instructions written below each activity.
- 2) Do all the activities as per instruction.
- 3) Mobile phone is allowed to use while performing speaking activities.

Listening Skills

Listen to the paragraph to be dictated by your teacher and complete the paragraph given.

The Trojan War was one of the most famous wars in history. It is well known for the Trojan Horse, for the heroism of a number of legendary characters, and for the Trojan Horse. What may not be familiar, however, is the story of the war itself.

According to Greek myth, the war began between the Trojans and the Greeks started at the wedding of Peleus, King of Thessaly, and Thetis, a sea nymph. All of the gods and goddesses had been invited to the wedding celebration in Troy except Eris, goddess of discord. She had been invited from the great but because her presence always provoked wrath and resentment alike in conflict.

To take revenge on those who had slighted her, Eris decided to cause a scandal. Into the middle of the banquet hall, she threw a golden apple marked "For the most beautiful." All of the goddesses began to bicker over who should possess it. The gods and goddesses reached a stalemate when the choice was referred to Paris, son of King Priam of Troy, who was said to be a good judge of beauty. Paris did not have any job. Each goddess offered rewards and promises to win the golden apple, and eventually to be his wife.

"I'll grant you vast kingdoms in Asia," promised Hera. "Vast kingdoms are nothing in comparison with my gift," intimidated Athena. "Choose me and I'll see that you will victory and fame is won," boasted Aphrodite. Athena could be ambitious, however, she was the goddess of intelligence, daughter of Zeus and the most beautiful mortal in the land, to Paris, Athena to secure Helen, wife of the Greek King Menelaus.

Although Paris favored Helen, he was married. He nevertheless accepted the hospitality of her husband, King Menelaus of Sparta. Menelaus was outraged by a number of reasons when Paris appeared, using Helen and much of the king's wealth back to Troy. Menelaus collected his loyal forces and set out for Troy to begin the war to recover Helen.

Exercise:

The Trojan War is one of the great stories ever in history. It is well known for the 10 years duration by the legendary number of legendary characters, and for the Trojan Horse. What may not be familiar, however, is the story of the war itself.

To take revenge on those who had slighted her, Eris decided to cause a scandal. Into the middle of the banquet hall, she threw a golden apple marked "For the most beautiful." All of the goddesses began to bicker over who should possess it. The gods and goddesses reached a stalemate when the choice was referred to Paris, son of King Priam of Troy, who was said to be a good judge of beauty. Paris did not have any job. Each goddess offered rewards and promises to win the golden apple, and eventually to be his wife.

Speaking Skill

1) At the College

Observe the following conversation and perform the role play in pairs.

Prof: Do you do exercise every day?

Mohab: Sometimes. It depends on the work load.

Prof: Work load. What type of work load do you have?

Mohab: See, I work in multinational company. Everyday our working hours is fixed but workload is altered in bulk so that we need to work at home too.

Prof: This is reasonable situation of all who work in so called high cultured world.

Mohab: Yes. Agree that in compare to local company, they pay high too.

Prof: What is use of money if it matches away the contents of enjoyment from life?

Mohab: What enjoyment do you do with handful of money?

Prof: I am happy with limited income and money.

Mohab: If you are happy, the issue is over. There isn't any end of this talk. See your tomorrow.

Prof: OK. You will spend some time for your body too.

Mohab: Yes, Sir.

2. Observe the following conversation and record it in pairs on your mobile phone.

At the railway station

Raman: Excuse me please?

Passenger: Yes.

Raman: Hello, I am Raman Patel. I need your help.

Passenger: OK, what help do you need?

Raman: Actually I am unaware to this railway station. Would you tell me the ticket window?

Passenger: Oh platform number 1. May I know for what purpose you are looking for ticket window?

Raman: For buying ticket.

Passenger: OK. Do you have mobile phone?

Raman: I have the latest smart phone.

Passenger: Good. Download an application of railway reservation application. Now days we can not only book reservation ticket but also can buy general ticket. So we need to visit ticket machine or standing in queue for buying ticket.

Raman: Is it possible? I am under the impression that we can book reservation ticket only.

Passenger: Railway authority has started this facility just now.

Raman: Oh. Thank you for providing such good information.

Passenger: My pleasure.

Raman: Nice to meet you.

Passenger: Same to you, Bye.

Read the following paragraph and select an appropriate opinion given below.

Ask your people what they happen that it will discuss see many of them will reply "public speaking". In fact a majority of people would actually rather do this than have to engage in any form of sport that is of public speaking was one of society's most primitive fears. Only the loss of a family member was considered a more terrifying prospect.

As a solo performer, who regularly supports the crowd of their own, most live recreational beauty this should be stressful on anyone. That was well so could usually proceed into an album earlier the day I happened to appear in this one, as I largely expect into a stage at the Museum of London. I'd chosen to have my speech to speak to here of hundreds of people in the audience.

For the occasion, TED calls on a global phenomenon. TED stands for Technology, Entertainment and Design and what started out as a small group of people from these different fields during their non-competing shows at parking in California 30 years ago has now morphed into hundreds of conferences around the world and thousands of international like online. TED

3. Write a paragraph on importance of mobile device for education.

Mobile is very much helpful for education. We can download online materials and can read online free books with the help of internet. Mobile can be used to get any information. We can use it to communicate with our friends and family. We can get any type of text or video content. For education point of view mobile serves just like a teacher. The most important usefulness is that we can learn anywhere, anytime and anytime. We can learn from the globe. These are many applications which teach us all kinds of subjects we want.

It is next generation. Teachers we should learn from mobile and we should not waste our time in playing games and watching wordless videos. Really mobile is the helpful tool.

Writing Skills

1. Circle the correct form of the verb tense and indicate the rule that determines the correct answer.

1. I am sure that both Catherine and Tom (are) coming to visit this weekend.
2. The athletes (were) kept in the top of the crowd.
3. Neither the twins nor their elder brother (has) ever seen snow.
4. Some of the faculty (had) already begun to open.
5. The news reported by the procedure of the college (was) considered bad by most students.

2. Identify the common error and rewrite the sentences:

Observe the articles "a, an, the" as per the requirement.

- 1) You try to talk. We live in a village.
- 2) He is best player in the team. He is the best player in the team.
- 3) The pen is on the table. A pen is on the table.
- 4) The room is small. A room is small.
- 5) The room is small. A room is small.
- 6) She is an university from. She is an university from.

Observe Preposition as per requirement.

- 1) Send this letter on my new address. Send this letter to my new address.
- 2) He goes to the school. He goes to the school.
- 3) He has been off for two weeks. He has been off for three weeks.
- 4) I cannot agree with you in this situation. I cannot agree to you in this situation.
- 5) The flight will depart at 10 pm. The flight will depart at 8 pm.

Reading Skills

Read the passage and answer the questions given below.

Read the passage and answer the questions given below.

Read the passage and answer the questions given below.

Questions

1) What is the solution that drives TED Talks?
The solution was ideas worth spreading.

2) According to the passage, what are some of society's most primitive fears?
Public speaking.

3. What does TED stand for?
Technology, Entertainment, Design.

Appendix K

Images

Images of Pre-Post test taken at Shankersinh Vaghela Bapu Institute of Technology, Vasan Gandhinagar and Gujarat Power Engineering and Research institute, Mevad, Mehsana







List of Publications

Tanna Rasikkumar & Dr.Vikas Raval " The gradual development of Mobile Device and it's applications in learning English..." IJELLH (International Journal of English Language, Literature in Humanities) [Online], 6.5 (2018): 8. Web. May. 2018

Tanna Rasikkumar & Dr.Vikas Raval "Learner's Language learning activities through inbuilt as well as supported tools of mobile device. **A Journal of Composition Theory** [Online], 12.8(2019): 8. Web, August. 2019