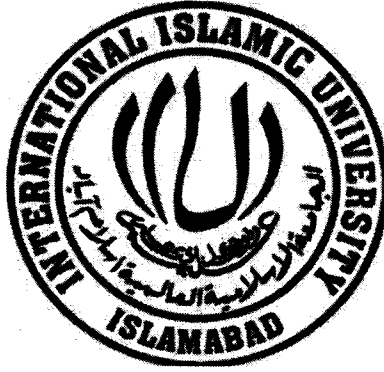


**Comparative Analysis of the Effectiveness of Computer
Technology in Student Achievement in English
Language at Secondary School Level in Khyber
Pakhtunkhwa and Punjab**



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Pakhtunkhwa and Punjab**



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December, 2021

Declaration

I, Imdad Ullah, Registration No. 59-FSS/PHDEDU/S10, student of PhD education, Department of Education, Faculty of Social Sciences, International Islamic University, Islamabad do hereby declare that the thesis titled “Comparative Analysis of the Effectiveness of Computer Technology in Student Achievement in English Language at Secondary School Level in Khyber Pakhtunkhwa and Punjab” submitted by me in the partial fulfillment of the requirement of PhD Education Degree, is my own work and has not been submitted or published earlier and shall not, in future, be submitted by me for obtaining any degree from this university or other university or institution.

Imdad Ullah

APPROVAL SHEET

**COMPARATIVE ANALYSIS OF THE
EFFECTIVENESS OF COMPUTER TECHNOLOGY IN
STUDENT ACHIEVEMENT IN ENGLISH LANGUAGE
AT SECONDARY SCHOOL LEVEL IN KHYBER
PAKHTUNKHWA AND PUNJAB**

By

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Abstract

Digital learning tools are replacing educational world each day. As a result, the traditional methods of teaching are changing from simple pen and paper to digital ones, for example, eLearning, blended learning, cloud-based learning etc. In such types of learning, the digital resources such as computer, mobile, internet etc., play an important role. In order to explore the effectiveness of such digital tools of learning, this study aimed at finding out the effectiveness of computer technology in the attainment of student's learning objectives/outcomes (SLOs) mentioned in the textbooks of English for Grade-IX prescribed by the Textbook Boards of Khyber Pakhtunkhwa and Punjab. For this purpose, an experimental study was conducted in which, four units of the prescribed textbooks were taught through Grammar Translation Method (GTM) to control group students and through Grammar Translation Method supported by Computer Assisted Instruction (GTMSCAI) to experimental group. The academic achievement of the students in English Language gotten through GTM and GTMSCAI was measured through pretest and posttest. The study revealed that GTMSCAI was much more effective in improving the academic achievement of the students in English Language than GTM. Moreover, GTMSCAI improved the academic achievement of KP and Punjab students equally. Therefore, it is recommended that GTMSCAI may be used, in order to improve English Language learning skills of secondary level students.

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(Imdad Ullah)

Forwarding Sheet

The thesis entitled “Comparative Analysis of the Effectiveness of Computer Technology in Student Achievement in English Language at Secondary School Level in Khyber Pakhtunkhwa and Punjab” submitted by Imdad Ullah, Regd. No. 59-FSS/PHDEDU/S10, in partial fulfillment of PhD degree in Education has been completed under my guidance and supervision. I am satisfied with the quality of student’s research work and allow him to submit the thesis for further process as per IIU rules and regulations.

Prof. Dr. N.B. Jumani

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Fig. # **Caption**

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Experimental Group Students of KP and Punjab

List of Abbreviations

- **BISE:** Board of Intermediate and Secondary Education
- **CAI:** Computer Assisted Instruction
- **CALL:** Computer Assisted Language Learning
- **CBI:** Computer-Based Instruction
- **CMI:** Computer-Managed Instruction
- **CD:** Compact Disk
- **DVD:** Digital Versatile Disc
- **GTMSCAI:** Grammar Translation Method Supported by Computer Assisted Instruction.
- **GHS:** Government High School
- **GHSS:** Government Higher Secondary School
- **GTM:** Grammar Translation Method
- **ICT:** Information and Communication Technology
- **iPad:** Interactive Personal Application Device
- **iPod:** Internet Portable Open Database)
- **KP:** Khyber Pakhtunkhwa
- **MP3:** Moving Picture Layer-3
- **NEP:** National Education Policy
- **NICT:** National Information and Communication Strategy
- **PDF:** Portable Document Format
- **PDA:** Personal Digital Assistant

- **PIID:** Pakistan Institute of ICTs for Development
- **SLOs:** Student Learning Outcomes/Objectives
- **SMS:** Short Message Service
- **SSC:** Secondary School Certificate
- **TELL:** Technology Enhanced Language Learning
- **UNESCO:** United Nations Educational, Scientific and Cultural Organization
- **Wi-Fi:** Wireless Fidelity

Chapter 1

Introduction

The educational world is changing because the growth of digital platform has had a huge impact on how courses work. As a result, the teaching learning practices have been shifting from the traditional practices to digital or blended ones. Thus, throughout the last thirty (30) years, conventional teaching/learning methods have gone through considerable changes; brought on by technological tools. As a result, the twenty-first (21st) century learners grow up in the time of widespread access of information and communication technology. Digital resources such as, computer, mobile, internet, social media networks etc., have been exploiting for eLearning, blended learning, and cloud-based learning platforms etc. Moreover, via the use of such resources learning stuff such as videos, lectures, podcasts, recordings and articles etc. are provided in order to transfer the bulk of knowledge from teacher to students before each class. This then frees up time in class for teachers to support students in learning activities. Furthermore, by doing so, a learner of modern era may prefer to search online/offline resources to improve his/her learning practices.

In fact, the utilization of digital technology has grown to be an important part of teaching learning practices in and out of the classroom because of its benefits. Highlighting the importance of such tools, Ahmadi (2018) stated that:

When computer is connected to internet, learners can access and collect information round the clock. For students, this access helps to find study materials and learning software to interact and share resources all over the world. Moreover, using internet connected resources for teaching learning practices is an

online world where learners can use their image as their profile picture to immerse themselves in one place with various contexts. Furthermore, it enables students to connect and cooperate with others while away from classes. Moreover, the learners can discover and communicate with others and immerse themselves in the language they are learning. (p. 59)

Similarly, Mohamed and Embi (2013) have said that one of the aims of technology use in learning is to engage students in new ways. In the same way, Costley (2014) has said that technology is an effective tool of learning. In addition, Riasati, Allahyar and Tan (2012) have mentioned that the use of technology has changed the traditional teacher-centered approach to learner-centered approach. Correspondingly, Baloch (2014) has said that:

The use of information and communication technology (ICT) shows positive growth trend as almost half the world's population is now online. However, Pakistan ranked 142 in the 2013 edition of the ICT Development Index of 166 economies, whereas China, India, Iran and Afghanistan ranked 86, 129, 94 and 155 respectively, the International Telecommunications Units (ITU) reveals in its latest report. 3.6 million is the number of broadband subscribers in Pakistan as of April 2014 and out of 4.3 billion, who are still offline, 90% live in developing countries, such as Pakistan. Many international surveys and the country's telecom regulator estimate that over 80% of Pakistan's population is still offline. Though the statistics certainly don't paint a good picture for the country, things are likely to improve in the future, according to industry experts. (p. 12)

Actually, education and technology are interlinked. Moreover, due to the rapid technological advancement have reshaped teaching, leaning and research activities. Furthermore, the technology, being an effective educational tool, has enabled learners to generate new knowledge, obtained reliable information and restructure instructional approaches. Thus digital technologies are the driving force for educational outcomes at all levels generally and at secondary level specially. Computer assisted instruction, computer based learning, computer assisted language learning etc. are the strategies for integrating technology in classroom practices. Tomei (2003) has said that teachers remain on the best in drill and practice software, visual presentations that support continuous positive feedback and internet sites that offer a stimulus-response format to point and click through associated links.

That is why; policy makers, curriculum planners, teacher educators, and other stake holders of education sector are regularly planning strategies for the application of ICT tools in teaching learning practices. For example, Pakistan launched the NICT Strategy 2005 in order to portray a good picture of Pakistan in the efforts being made in the implementation of ICT tools in pedagogy. Thus, it is right to say that if NICT Strategy Pakistan (2005) is implemented with true spirit in Pakistan, it may earn a good name for Pakistan in the utilization of ICT tools in different walks of life. In the NICT Strategy (2005) The Government of Pakistan (2005) has mentioned that:

Around the globe, countries are using innovative tools to enhance education. The use of information and communications technology (ICT) tools e.g. computers, mobiles, telephones, and television etc. can enrich teaching and learning practices

by providing access to latest teaching learning practices that can prepare young learners for rewarding careers in the globally competitive job market of the 21st century. (p.6)

On the basis of this, ICT tools especially computer, mobile etc. may be used in teaching learning practices especially in the teaching learning practices of English. Moreover, by doing so, English language learners may try their level best to exploit all those approaches, methods and techniques etc. that can enrich their listening, reading, speaking and writing skills. For example, they may use different approaches of English language learning like; task-based approach, project-based approach, the lexical approach, the structural approach, eclectic approach, communicative approach, situational approach, multi-skill approach, Smart phones in classroom approach, computer in the classroom approach, different methods such as; immersion/natural method, the dual method, communicative language teaching method, community language learning method, and techniques such as; listen and act, listen and say (letters, words, phrases, sentences, passages), listen and say in short, watch and say (letters, words, phrases, sentences, passages), watch and act, listen and find out etc. to improve their competence and performance.

In fact, the main motto behind such activities is to introduce and implement technology based teaching learning practices inside and outside of the classroom. Moreover, internet connected computers and mobiles may be used for accessing huge portion of learning material especially of English Language. Furthermore, English language learners may share their learning experiences with larger groups and get access

to experts and appropriate mobile apps and computer software. Likewise, English language learners may get the opportunity to learn according to their pace and space.

If we examine traditional classroom teaching, we will find that either the teacher is delivering information or one of the students is reading from the textbook and other students are silently following him/her in their own textbooks. Instruction is poorly organized and rote memorization is greatly emphasized. Mostly the results of students are not suitable due to the presence of teacher-centered approach. Whereas, computer technology has played great role in bringing changes in traditional methods of instruction especially by introducing hypertext, images and videos in concept development. By observing such practices, Hennessy (2005) said that the use of ICT tools act as a catalyst in motivating teachers and learners to work in new ways. Likewise, Susikaran (2013) has mentioned that the use of technology has brought drastic changes in the teaching learning practices that are based on chalk and talk strategy. Comparing the benefits of traditional methods and electronic learning, it is mentioned that:

In order to achieve growth through a well educated and skillful infrastructure, the learning does not need to happen through traditional learning approaches, but leapfrogging to electronic learning (e-learning), provides specialized, readily available, easily accessible and quality education opportunities. Pakistan Telecom Authority indicates that as of 2008 there are nearly 22 million internet users and over 80 million mobile phone subscribers, this gives Pakistan great leverage to progress towards targeted curriculum development and dissemination through e-

learning. A sustainable e-learning infrastructure in combination with traditional learning is the key enabler to maximize benefits from a putrefying talent pool.

(“Towards-e-learning”, 2011, p. 11)

In fact, the use of modern technology has a significant role in English language teaching learning practices. Regarding this aspect, Eady and Lockyer (2013) have said that technology is an integral part of the learning experience and a significant issue for teachers, from the beginning of its creation/existence. Likewise, Harmer (2007) and Gençler (2015) have said that teachers should encourage learners to find appropriate activities via using computer technology in language learning. Correspondingly, Larsen-Freeman and Anderson (2011) have supported the view that technology provides teaching resources and brings learning experience to the learners' world. Regarding the use of technology in English language, Ahmadi (2018) has mentioned that:

Electronic teaching programs have become the predominant performance of instructors since they arguably boost positive student engagement with teachers and incentivize overall learning as well. However, more English language teachers now actively incorporate a range of technological aids designed to facilitate optimum teaching delivery. (p. 168)

In like manner, Dash (2011) has mentioned that the value of any technology used in education must be measured by its capacity to improve learning. Likewise, Becker and Ravits (1999) have mentioned that the use of technology is essential for English language learners in the 21st century. In addition, Becker (2000) has voiced that computer is regarded as an important instructional instrument in language classes. Likewise, Goodwin

(2012) has argued that the emergence of computer software and mobile apps has transformed and modified the traditional methods of English language teaching/learning. Furthermore, Gencler (2015) has pronounced that computer-based activities provide appropriate materials and information to English language learners. In addition, on the basis of his experiences, Siddiqui (2007) viewed that:

Worldwide education is facing a number of challenges with increasing technological development; therefore, educators need to find ways to improve their pedagogy by trying out the effectiveness of technological tools in academic achievement of students. Moreover, traditional approaches, methods and techniques of English language learning are affected by technologically advanced English language learning approaches, methods and techniques. In addition, English language learners also try their level best to locate different language learning approaches, methods and techniques to upgrade language learning practices. Likewise, English language teachers struggle to integrate appropriate technology into classroom activities to upgrade their pedagogical skills. Also, they share their learning experiences to his students. In addition, they direct their students to achieve the desired objectives mentioned in official documents via latest approaches, methods and techniques of language learning.

Thus, the rapid development in the features of digital learning tools aims at improving efficiency, productivity, and meeting the needs of an increasingly diverse population of students who require greater flexibility in terms of what, when, where and how to learn. As the integration of technology in language classrooms has been mostly

welcomed due to the fact that it improves language learners' linguistic and digital literacy. Moreover, due to the use of digital tools of learning, technology continues to move up in importance as a tool to help teachers facilitate teaching learning of English language. Regarding the importance of teaching English language through technology, Rehman (2003) has mentioned that:

The subject of English up to higher secondary level is compulsory in schools located in Pakistan due to the reasons that firstly, English is a means of understanding the foreign and higher education work and secondly, it is an international language used in research, commerce, civil aviation, diplomacy and is a source of scientific and technological advancement. (p. 256)

The review of all national educational policies, reports, conferences, and five-year plans reveals a advocacy for the widest possible use of educational technology at all stages of education, improvement and expansion of education through instructional processes and teachers technical trainings. For example, regarding English as the medium of instruction, Quaid-e-Azam declared in the first All Pakistan Educational Conference that:

Urdu would be the national language, but he never ignored the importance of English. According to him, "As regard English, while the injurious effects of making an alien language the medium of instruction has been widely recognized, it must, for some considerable time to come, retain its pride of place both in the share of our university education and as a means of international communication". (Govt. of Pakistan, 1947, p. 29)

The Commission on National Education 1959 announced that English would continue to be the medium of instruction as it is the only effective means of communication with the world and the most adequate source of information on the latest development in science and technology. Therefore, all educated persons in the country should have a sound knowledge of this language (Govt. of Pakistan, 1959). The Constitution of Pakistan provides a specific framework for the introduction of Urdu as the national language and English as an official language as follows: English language may be used for official purposes until arrangements are made for its replacement by Urdu (Govt. of Pakistan, 1979). According to the National Education Policy (1998-2010) teachers at intermediate level are subject specialists. Teachers and lecturers in this category are expected to have done their postgraduate work in the subject they teach. The same is not necessarily true of teachers for class IX and X, which means that students studying English are often taught by the teachers with no special training in these subjects (Govt. of Pakistan, 1998).

Thus, institutions need to update their staff, equipments, laboratories, and libraries in order to get the benefits of educational technology. So that, such infrastructure may facilitate the instructional process development and stimulate teachers to keep themselves side by side with technical advances in pedagogy. Furthermore, modern facilities of teaching may come within easy reach of the masses through the powerful media such as radio, television, computer and other instructional aides. Similarly, the use of ICT tools has been emphasized as under:

The widest possible use of educational broadcast and educational films will be made possible at all stages of education (Govt. of Pakistan, 1947). The effective use of instructional technology in teaching-learning process will be planned to develop education system based on instructional technology (Govt. of Pakistan, 1970). High priority will be given to those methods which facilitate teaching and learning practices through proper utilization of instructional technology (Govt. of Pakistan, 1978). In order to strengthen individualized instruction computers' use for educational purposes will be emphasized (Govt. of Pakistan, 1998). A People's Open University would be established to provide part-time educational facilities through correspondence courses, tutorials, seminars, workshops, laboratories, radio/television broadcast and other mass communication media (Govt. of Pakistan, 1972). The necessity to promote and popularize use of technology among masses via science fairs, museums and films etc., will be emphasized at all level of education. Moreover, web-based learning will be flourished in the country (Govt. of Pakistan, 1979). Continuing education system will be restructured by proper intervention of instructional technology in education (Govt. of Pakistan, 1992). Latest concept like system approach, computer assisted instruction, computer assisted language learning etc., will be implemented in order to meet the challenges and opportunities of information and communication technology (Govt. of Pakistan, 1998).

Similarly, the use of ICT tools was emphasized in National Information and Communication Strategy for Education in Pakistan (2005) as under:

ICT must be employed and integrated into schools to support students' self-paced learning, moreover, ICT is a means to enhance learning for all children, and improve education systems and processes, in an efficient and cost-effective manner. Furthermore, use of ICT shows teachers ways to move away from the whole-class lecture mode towards more active, student-centered methods of learning. Therefore, integration of ICT tools into classrooms is important so that their use becomes part of the learning process in all subject areas. Thus, it is recommended that the National Education Policy of Pakistan should reflect the NICT Strategy, 2006 and future steps taken with the NICT Strategy must relate to the country's broader educational strategies.

(Govt. of Pakistan, 2005, pp. 1-17)

Likewise, the use of ICT in National Education Policy 2009 is emphasized as under:

The use of ICT tools in Education will be promoted in line with Ministry of Education's NICT (National Information and Communication Technology) Strategy for Education in Pakistan. Moreover, ICT tools will be used to strengthen the quality of teaching and management. In this regard, faculty training in pedagogy and ICT will be provided at all levels of education to enhance the efficiency of teaching in Pakistan.

(Govt. of Pakistan, 2009, p.45)

By reviewing the related literature, it is evident that English learning and technology are interconnected and English language teachers still need to implement effective and enjoyable uses of technology in language learning practices in order to improve students' learning outcomes at any level. By doing so, teachers may use technology as a means to enhance learning and improve education systems in an efficient and cost-effective manner. Moreover, teacher educators may also develop new approaches, methods and techniques for teaching English and aware the teachers of all level about the use of such practices in order to develop pedagogy. Furthermore, the government and non-government organizations may enforce/encourage governments, educational institutions and teacher educators etc. to implement technology-infused curriculums so that innovative practices take place in teaching learning practices. Moreover, teacher educators may provide training to practicing and prospective teachers accordingly. Moreover, other stakeholders may try to use innovative instructional tools such as computers, internet, multimedia, digital camera, digital libraries, and video conferencing etc., in order to play their due role in pedagogical development.

However, in spite of government support, the secondary level schools of Pakistan seem to be lagging behind in using instructional technologies in language teaching-learning practices. That's why, Govt. of Pakistan (2005) has mentioned that:

Faculty training in pedagogy through the use of ICT tools at all levels of education will be provided to stakeholders of education sector to enhance the effectiveness of their role in teaching learning practices. By doing so, the educational challenges mentioned in the UNESCO report on education in Pakistan

2015 i.e. the poor quality of education, the inappropriate teaching methods and the acute shortage of well-trained teachers will be clarified.

In order to clarify such observations, Nosheen (2005) has suggested that researchers need to conduct their research work in a timely manner i.e. conduct a research work on the effectiveness of any new technology as its use becomes available. By applying such recommendations, the Govt. of Khyber Pakhtunkhwa (2013) conducted a pilot project in two districts in which three subjects, English, Biology and Mathematics were taught to the students in the secondary schools through ICT tools and announced that on the basis of its findings, it would be extended to other parts of the province as well as to other subjects. Similarly, the Government of Punjab announced that:

IT-based school education in Punjab e.g. digitizing textbooks, where each textbook is embedded with video lectures, illustrations and interactive assessments is launched. Such textbooks have enabled students to learn on their own pace anytime and anywhere. Thus, the readers of such books are now better able to edit or add something new to such books. Moreover, Over 5,000 video lectures, animations, simulations and interactive assessments have been added to these textbooks. Furthermore, these books are also available locally in computer labs of public sector schools in Punjab. In addition, an automatic test-generation software has been developed for the Punjab Examination Commission, similar to the systems used for SAT, GRE, and TOEFL etc. These systems are designed to automatically generate many different permutations of questions papers for an exam. Automatic marking of these computer-generated exams sheets have

eliminated the problem of variable grading quality and errors in tabulation. Saif, 2015, p.12)

1.1 Statement of the Problem

In spite of the availability of computer labs in majority of public sector schools located in Khyber Pakhtunkhwa and Punjab, the teachers and students seemed to be lagging behind in the use of computer technology in teaching learning practices of English language. Moreover, it is noticed in these schools that English is taught in very uninteresting ways. In addition, many computer programs have been developed for teaching mathematics and sciences but very few programs have been developed for teaching English through the use of computer technology. Thus, in order to expedite the use of computer technology in these schools, the investigator explored its effectiveness in English language learning, in order to highlight its effectiveness in English language learning. Moreover, to expect pro-active actions needed to meet the future challenges of NICT Strategy Pakistan 2005.

1.2 Objectives of the Study

In order to find out the effectiveness of computer technology in English language learning, the objectives of the study were:

1. To find out the effectiveness of GTM and GTMSCAI in the academic achievement in English language of students of KP.
2. To find out the effectiveness of GTM and GTMSCAI in the academic achievement in English language of students of Punjab.

3. To compare the effectiveness of GTMSCAI in the academic achievement in English language of students of KP and Punjab.
4. To compare the effectiveness of GTMSCAI in the academic achievement in English language of students of KP and Punjab.

1.3 Hypotheses

To achieve the above objectives, the following null hypotheses were tested:

H₀ 1: There will be no significant difference in the pretest and posttest mean scores of the groups taught through GTMSCAI.

H₀ 2: There will be no significant difference in the posttest mean scores of the groups taught through GTM and GTMSCAI.

H₀ 3: There will be no significant difference in the posttest mean scores of the groups taught through GTMSCAI.

1.4 Significance of the Study

The findings of the study may help teachers to teach English in an effective way at secondary level in Pakistan. For example, they may use English Skill Building techniques, methods and strategies such as identifying correct listened words during listening English prose and poems, making discussion on an English topic using a flow chart/tree diagram/mind map/websites/hardware/software/mobile apps/electronic dictionaries/printed dictionaries/encyclopedias/technological tools etc. Thus, the findings of this study may provide direction in teaching English in schools located in Pakistan.

Moreover, these findings would provide guideline to curriculum planners in redefining the objectives of the National Curriculum for English, Grade I-XII, 2006. The study results might be helpful for curriculum developers to design appropriate methodology to teach the curriculum content. The result might also be helpful in revising the teacher education programs that provide relevant knowledge and skills to prospective teachers for teaching English at secondary level. The study results may also indicate further research direction about the application of GTMSCAI at different level for different students in different subjects in Pakistan. The future researchers may also use the findings of this study as a spring-board to use ICT tools in order to find out the effectiveness of such tools in the improvement of English language teaching at secondary level in Pakistan.

Thus, the findings of this study may convince educators to encourage the use of computer technology and mobile devices etc. for the better attainment of SLOs mentioned in the Curriculum of English for Class-IX, Prescribed by Curriculum Wing, Ministry of Education, Govt. of Pakistan. The results of this study may also be a source of inspiration for stakeholders to develop educational software and mobile apps etc. The findings of the study may benefit teacher educators to use ICT tools such as computers, internet, CDs/DVDs, Online/Offline computer/mobile software, television and radio broadcasts, audios, videos, cameras, projectors, books, magazines, websites, social media networks, educational movies, and some other types of hardware/software to expedite the implementation of The National Information and Communication Technology Strategy for Education in Pakistan, 2005. The results of this study may encourage English language teachers to use ICT tools in classroom to bring innovations in the pedagogical

practices of English language learning in Pakistan particularly and all over the world generally.

1.5 Delimitations of the Study

On the basis of time and resources constraints, the study was delimited to:

1. Public Sector High/Higher Secondary Schools established by the government of KP and Punjab.
2. Grade-IX Students who were studying English during academic year 2015.
3. Only Four Units of Textbooks of English prescribed by KP and Punjab Textbook boards. These units were unit 3 (Quaid – A Great Leader (Quaid-e-Azam Muhammad Ali Jinnah), unit 14 (The Daffodils) of the textbook of English for Grade-IX, published by Khyber Pakhtunkhwa Textbook Board Peshawar and unit 5 (Daffodils), unit 6 (The Quaid’s Vision and Pakistan (Quaid-e-Azam Muhammad Ali Jinnah) of the textbook of English for Grade-IX, published by Punjab Textbook Board Lahore (Appendix-Y) were taught to sampled students through GTM and GTMSCAI. The students’ learning outcomes/objectives mentioned in these four units were targeted to be achieved.
4. As only four units were to cover so only 96 out of 860 (11%) periods of English were taken to teach English via Grammar Translation Method and Grammar Translation Method Supported by Computer Technology (Total duration of the experimental time was 64 hours).

1.6 Research Methodology

The study used true experimental design (Pretest Posttest Only Design). The quantitative data obtained via pretest and posttest identified the effects of independent variables (treatment provided through GTM and treatment provided through GTMSCAI) on dependent variable (students' achievement in English language). The methodology adopted for this study is as under:

1.6.1 Population of the Study

The population of the study was all grade-IX students studying English during academic year 2015-16 in public sector schools of KP and Punjab. However, the accessible population was five hundred and sixty-three (563) grade-IX students who were studying English in Government High School No. 1 Nowshera Cantt. (KP), Government Girls Higher Secondary School Nowshera Cantt. (KP), Government Higher Secondary School Attock City (Punjab) and Government Girls High School No. 2 Attock City (Punjab).

1.6.2 Sample of the Study

The sample of the study was consisted of one hundred and twenty-eight (128) grade-IX students selected from the accessible population.

1.6.3 Research Instruments

The following were the research instruments of the study.

1.6.3.1. The Pretest

In order to measure the academic achievement of the sampled students, a pretest (Appendix-A) was administered to them. In the pretest, out of hundred marks, 10 marks were allocated to section I: Listening Comprehension, 20 marks to section II: Vocabulary Development, 20 marks to section III: Oral Communication Skill and 50 marks to section IV: Reading and Writing Skills. The pretest content validity was made sure by preparing the table of specifications and its reliability was found out through administering it to 32 (thirty-two) Grade-IX students studying in schools selected for pilot study (Appendix-AF). The reliability coefficient was found out through Spearman-Brown formula. Thus, via the use of pretest, the academic achievement in three levels of cognitive domain i.e. knowledge, comprehension and application (Appendix-U) was found out before providing treatment to sampled students.

1.6.3.2. The Posttest

In order to measure the academic achievement of the sampled students after the provision of the treatment, a posttest (Appendix-D) was designed. In the posttest, out of hundred marks, 10 marks were allocated to section I: Listening Comprehension, 20 marks to section II: Vocabulary Development, 20 marks to section III: Oral Communication Skill and 50 marks to section IV: Reading and Writing Skills. The content validity of the posttest was made sure by preparing the table of specifications. The reliability of the posttest was found out by administering it to 32 (thirty-two) Grade-IX students selected from schools that were selected for pilot study (Appendix-AF). The reliability coefficient was found out through Spearman-Brown Formula. Thus, the posttest measured the

academic achievement in three levels of cognitive domain i.e. knowledge, comprehension and application (Appendix-U) after the provision of the treatment.

1.7 Data Collection

The quantitative data obtained through pretest and posttest was tabulated category wise and double verified before transferring it on MS EXCEL 2010 worksheet. The return rate of the pretest and posttest was 100%.

1.8 Data Analysis

The quantitative data obtained through the pretest and posttest were entered in MS EXCEL 2010. The data pertained to the specific objectives of the study, answered the hypotheses and was presented in tabular and chart forms. The analysis of data was carried out by using related to the specific objectives of the study, answered the research questions and was presented in tabular and chart form. The analysis of data was carried out by using percentage, mean scores, and t-value to describe the relative position of the responses of the students.

1.10 Key Terms Operational Definitions

- **Academic Achievement of Students**

The term “academic achievement of students” means the scores obtained through the pretest and the posttest. This the dependent variable i.e. the effect or outcome of manipulating the independent variable i.e. GTM or GTMSCAI.

- **Computer Technology:** The term means computer assisted instruction.
- **Computer Assisted Instruction (CAI):** The term CAI means instruction/tutorials/tests provided via computer connected to internet.
- **Effectiveness**
- The term “effectiveness” means the level of attainment of students learning outcomes/objectives mentioned in posttest.
- **Grammar Translation Method (GTM):** The term means the method applied by the control group students while obtaining the students’ learning outcomes/objectives mentioned in the posttest. During this step, the control group students exploited printed lesson plans designed by the investigator.
- **Grammar Translation Method Supported by Computer Assisted Instruction (GTMSCAI):** The term means the method applied by the experimental group students while obtaining the students’ learning outcomes/objectives mentioned in the posttest. During this step, the experimental group students exploited computerized lesson plans designed by the investigator.
- **Secondary Level Students:** Students who study in Grade-IX and/or X.

Chapter 2

Literature Review

This chapter deals with the literature, collected from different sources, related to the objectives and research questions of the study. The main sources were the official documents, reports, books, periodicals, and research materials available in printed or/and electronic format. These resources were reviewed thoroughly in order to find out the relevant information regarding the effectiveness of computer technology in English language learning. In fact, it is well vivid that the reviewed literature has provided a base and justification for the conduction of this study titled as “Comparative Analysis of the Effectiveness of Computer Technology in Student Achievement in English Language at Secondary School Level in Khyber Pakhtunkhwa and Punjab”.

In fact, teaching and learning go side by side i.e. teaching is a process and learning is its product. Thus for the achievement of better product, better knowledge of subject matter and method is strongly required. It is worth mentioning that the matter or thoughts presented for consideration in a book etc. is called the subject matter, whereas the method applied for mastering the given subject matter is known as subject method.

All over the world, different teaching techniques (e.g., look and say, listen and repeat, listen and perform etc.), methods (e.g., grammar translation method, direct method, communicative language teaching method etc.) and approaches (e.g., structural approach, eclectic approach, applying technology etc.) are exploited for linguistic skills development. Actually, the main purpose of such practices is to bring a vivid and permanent change in the mindset or behavior of an individual. Thus, when learning takes

place in an individual then he/she thinks accordingly (changes takes place in his/her mindset) and/or performs accordingly (changes takes place in his/her behavior). Highlighting this point in more vivid words, Ormrod (1998) remarked that behavioral psychologists describe learning as a change in behavior whereas the cognitive psychologists describe it as a change in mental association.

Currently in order to bring broader changes in the behavior and mind set of a learner, ICT tools are used very often. Highlighting this point, Yang and Chen (2008) remarked that the explosion and rapid development of Web 2.0 technologies, including audio and video podcasting, blogging, social bookmarking, social networking, virtual world activities, and wiki writing, have led to increasing volumes of knowledge and learning opportunities. Similarly, Lee (2010) and Chen (2011) have pointed out that integrating digital learning content and robot into conventional usage of books may enrich the representation of plain text with multimedia and motions which together may enhance student learning. Similarly, Arifah (2014) mentioned that the use of internet increases learners' motivation; helps learners to understand the topic with enthusiasm; and develops their higher order thinking skills. Similarly, according to Bull and Ma (2001), technology offers unlimited resources for bringing changes in the mind set and behavior of learners. That's why; nowadays even in primary schools computers, mobiles, and tablets etc. are ubiquitous. Teachers use these tools of learning to support offline/online learning and search websites for reliable information and resources in order to broaden the knowledge bank of the learners.

2.1 Uses of Computer in Learning

Computer technology provides many opportunities of improving English language learning practices. That's why; computers have been exposed in many studies to assist English language learners in a variety of ways. For example, computer aids in vocabulary development, reading comprehension, oral and verbal skills improvement etc. Thus, with the use of advance technology in education, use of computer plays a great role in helping students to master necessary language learning skills. Regarding this, Chen (2011) has said that the use of computer technology in teaching languages has been dramatically increasing worldwide. In order to get the benefits of computer technology, the government of Pakistan has launched the NICT strategy, 2005 in order to encourage the use of ICT tools in pedagogical practices especially of English language learning. Highlighting the importance of teachers' role in the process of implementation of ICT in pedagogical practices, Chen (2008) has mentioned that:

Teachers have a crucial role in integrating ICT into classrooms of language learning and teaching. He has added that majority of the studies in this area have focused on teachers' training, teachers' attitudes towards the use of ICT tools in pedagogical practices, and teachers' beliefs about the use of ICT tools in language learning/teaching practices. He has also added that generally, most teachers were found inefficient to get involved with students in promoting internet use as 54.2% of them expressed low self-esteem to teach safe internet practices in class while 22.3% were strongly negative in dealing with the particular subject. (p. 458)

Due to such reasons, Lee (2010) schooling is moving from its traditional paper-based operational mode to one that is digital. Moreover, he has added that web-based technology-enhanced learning seems to help the learners in the attainment of students learning outcomes in an advanced way. Similarly, Yang and Chen, 2008 have said that the use of computer technology in teaching and learning English has become very popular.

In fact, technology refers to a collection of tools. It is apparent that these tools may be human beings or machines such as overhead projectors, laptop computers, smart phones, calculators etc. Similarly, it is also very clear that these tools may encompass techniques, methods and strategies that facilitate the human beings in the attainment of learning objectives. Lee (2010) has mentioned that:

Hypertext has facilitated the readers to read and store the information in sequence. He has also added that in addition, the implementation of emerging Web 2.0 technologies can result in a positive impact on supporting students' learning processes and outcomes. Furthermore, he said that podcasts can be used as supporting materials along with the course materials to develop students' proficiency in English (p. 15).

Similarly, Shih (2011) has narrated that facebook has become a valuable social network that facilitates learners' communication and collaboration since it has the features of "wall", "info", "blog", "friends", "like", "unlike", "comment", "poke", "send message", "photos", "links", and "video" which provide learners with various opportunities to communicate, interact and collaborate with people all over the world.

Conroy (2010) concluded that internet based or assisted language learning could support college students in independent language learning and academic writing because these students are enthusiastic and reasonably competent users of internet-based tools and techniques. Similarly, Wang (2011) reported that:

Web-based learning is based on learning theories that emphasize the creation of an environment where learners can access and share knowledge and resources. Moreover, CALL is gaining more popularity in foreign language learning as it provides many best opportunities of foreign language learning. It is still hard to use ICT freely and proficiently as teachers/students are facing many obstacles in using computers in their classroom/homes. Even though many countries have done institutional efforts to modernize their equipment, spent large amounts in technology, proved the positive effects of integrating computers in language learning, yet so many teachers still miss the appropriate interest, will, challenge, and attitude towards teaching with computers (pp. 14-23).

Egbert, Huff, Mcneil, Preuss and Sellen (2009) explained that:

We now see widespread use of Web page creation programs, such as Dreamweaver or FrontPage, as authoring tools for generating Web based learning materials. As a result, student-centered and constructivist learning models have been developed. Similarly, games as the central elements in the involvement of learners over extended periods of language learning activities (p. 45).

However, regarding the obstacles exist in the way of implementation of computer technology for language learning, Valtonen (2011) has indicated that although Net

Generation uses different technologies, yet they do not see these technologies as tools of learning and teaching. Similarly, Nosheen (2005) has said that technology (media and materials) useful in the instructional processes ranges from teachers to machines that may change completely or partially the classroom teaching/learning structure. Mahmood (2012) said that the instructional technology, in its present form, is different from its original shapes. He has added that in the early days, it is narrated that educational technology was consisted of chalk, talk, pictures, models, and figures. Furthermore, he has narrated that chalk was used to increase the writing ability, talk to enhance the communication skill, while pictures, models, and figures were used as visual aids. Januszewski and Molenda (2010) have said

In 1920s, there were a higher quality of films, slides, radio, and motion pictures that were used in educational setting to enhance learning. Due to the use of such learning tools educational technology was first emerged as a discipline in the 1950s, since then a great number of books and journal articles have been written. However, the definitions of educational technology changed with new technological advancements making older technologies obsolete very quickly. For example, when J. L. Baird invented television in 1964 the television technology began to be used in the field of education by adopting it as an instructional tool. Thus, the name of Audio Visual Aids changed to Educational/Media Technology. Similarly, in late 1970s, computer-assisted instruction started and this changed the name of media technology as instructional media, in 1980s, computers made great impact on teaching and learning practices in majority of the subjects. As a result, the instructional technology was grown as a field of study which used technology

as a means to solve educational challenges. Till 1960s, the term audiovisual technology was used for the field of instructional technology and after 1960s, the terms instructional technology and educational technology were used for the field and the Department of Audiovisual Instruction changed its name to The Association for Educational Communication Technology. Although instructional technology in a broader sense is the use of any new educational technique, in fact, the concept means more than the sum total of all the media and methods, materials and techniques used for better teaching and learning. The term technology can be applied to specific areas, such as, computer technology, web technology, information and communication technology, instructional technology, educational technology etc. Thus the educational technology includes all educational resources - men and materials, methods and techniques, means and media in an integrated and systematic manner for optimizing learning. In the education industry, the term instructional technology was frequently used interchangeably with educational technology. (p. 145-146)

Comparing technology based education and traditional education, Kumari (2004) has said

Technology education is the study of technology in which students know about technology. Whereas, technology of education comprises an array of tools such as books, blackboards, papers, pencils, models, maps, charts, printouts, slides, globes, radios, televisions, projectors, and computers or any other audio visual aid that may help learners to equip themselves with knowledge. Whilst, educational

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technology is a joint use of computer hardware, software, and an educational theory. It is a fact that the learning gained via the use of educational technology is effective and efficient as well. Efficient in the sense that learning gained through the use of ICT tools is durable, comprehensive and applicable. Film-projectors, slide-projectors, computers, digital cameras, smart phones, televisions, radios, MP3 or MP4 recorders, language laboratories etc. are the hardware components of educational technology, whereas the use of techniques/methods/strategies in teaching/learning practices are the software components of educational technology. Both software and hardware components constitute the concept of educational technology and both of them are used to maximize the effects of teaching-learning practices. However, the instructional technology is referred to as a part of educational technology. In fact, educational technology expedites learning by using appropriate technology such as computers, CD-ROMs, interactive media, satellites, teleconferencing, computer assisted instruction, computer based learning, technology based learning, computer assisted language learning, mobile assisted language learning etc., in order to innovate teaching and learning practices. (pp. 45-46)

Nosheen (2005) has said that in order to get greater benefits of educational technology greater psychological and pedagogical preparedness, scientific attitude and a coordinated approach are needed as a whole.

2.2 Effectiveness of Computer Technology in Learning

Ahmed, Mahmood, Mhyuddin and Ghuman (2013) have pointed out that effectiveness of a method is measured via the level of attainment of objectives. So effectiveness is the level to which objectives are attained and the degree to which targeted problems are solved. In educational setting where ICT tools are exploited, the achievement level of learners increases. Regarding this point, Renshaw and Taylor (2000) say, “In the studies conducted, it has been observed that in educational environments where technological tools and computers are used, the achievement level of students has increased, students learn with comprehension not memorization, and high-level thinking skills of students have been improved.” In fact, via the use of computer technology, a teacher may use visual illustrations; assign work to students, and share text/image/audio/video etc. that may enhance comprehension of learners and teachers as well.

Actually, computer technology has changed out-aged concept of getting education and has made learning easy. Thus, it is commonly believed that students learn well when text/images/audios/videos are integrated with traditional methods of teaching. Through the use of this approach, students may learn from anywhere anytime by exploiting computer assisted instruction (CAI) and computer assisted language leaning (CALL) etc. So, education and technology are interlinked. Moreover, these rapid technological advancements in the last decades have reshaped teaching, learning and research related activities. As a result, such innovations in the field of information and communication technology have enabled us to generate new knowledge via reliable sources of

information and restructure instructional approaches, methods, and techniques. Encouraging the use of such innovative methods of pedagogy, Mahmood (2012) mentioned that new technologies are the driving force for better educational outcomes at all level.

However, all over the world education is facing a number of challenges with increasing social and organizational demands emerging as a result of computer technology. As a result, it has a direct effect on the academic, administrative and teaching-learning strategies which constantly compel a learner to search out innovative ways in order to update his /teaching/learning practices. Thus, Siddiqui (2007) has rightly said that most of the institutions have taken the responsibilities to address the needs of professional development of faculty for the up gradation of students' learning.

In fact, the use of modern technologies in teaching learning practices is a catalyst for updating pedagogy. Thus, now-a-days teachers have to teach their courses totally or partially via online resources. As new software and e-learning tools are being introduced at a rapid pace. This growth and evolution continues to replace old techniques/methods/approaches as a lot of students tend to participate in online learning practices. Moreover, governments are regularly increasing funding for the projects that aim at utilizing/exploiting ICT tools in the field of education and research. As a result, newer tools such as Smartphone, Tablet etc., are abundantly used in education and research related activities. Moreover, new technology is continuously taking the place of older technology. Furthermore, with these constant updates, researchers are conducting

their research studies in order to assess such practices. Thus, the research grows at the same pace as the technology.

In fact, it is very much necessary to conduct research on a new educational technology as its use becomes available. However, regarding the use of such technologies in teaching languages, Siddiqui (2007) has mentioned that during teaching with audio visual aids, teacher's responsibility is to create an environment in which students may practice computer-assisted instruction, programmed instruction and technology enhanced learning etc. As with careful use ICT tools offer tremendous guarantee for updating pedagogical practices of face-to-face and online learning.

Now-a-days, mastery of computer's and smart phone's apps is must for teachers and students in order to survive in the new millennium. With the mastery of such apps, they may ensure Learner-Centered and Learning-Oriented Curriculum that encourage modern techniques/methods/strategies of teaching languages. Actually, over the last few years, there has been tremendous development in learning technologies – a wide array of tools is now available to academicians to enhance the teaching and learning practices via the use of ICT tools. Thus, millions of people now use the internet to get the benefits of online/offline resources and smart classes as well. In order to provide support of such claims, Mishra (2009) mentioned that the World Wide Web is now mostly used by teachers to improve education and create a worldwide community of learners. He has added that over the last 10 years there has been a marked increase in the number of classrooms/schools that have regular access to computers and the internet. Moreover, regarding this, Roblyer and Edwards (2000) have said that using technology in education

is not a new concept; in fact, it can be traced back to when early cultures used complex systems of symbols and signs to record and transmit information.

In the context of formal schooling, some of the best known educational tools that are used in teaching and learning practices are whiteboard, marker, pens, paper, and textbook. Whereas, in very few schools the latest educational tools such as computers, overhead projectors, data projectors, cassette recorders, video players, compact disc (CD) players, digital video disc (DVD) players, digital camera, smart phones, open educational resources, digital resources, and web portals etc. are exploited for enhancing teaching/learning practices.

Krause, Bochner, Duchesne, and McMaugh (2010) have told that ICT tools have the potential to facilitate innovative ways of teaching and learning due to which learners may become independent learners and attempt queries in standard formats. Also, a teacher is equipped with many innovative methods of teaching/learning languages. Regarding this, Wang (2009) has said that using ICT tools prepare a teacher to play his key role in selecting appropriate materials for teaching English and create an environment conducive/appropriate for strengthening students' imagination, creativity and lifelong learning. Mertens (2005) said that students like using computers to learn English.

However, it is a well known finding in the literature that when a tool or program is new, it tends to get more attention and is often rated as being highly enjoyable and acceptable. Thus, regarding the use of such a tool/program different mindsets opine differently. That's why; Stephen, Thomas, Joan and John (2000) have mentioned that different learners have different opinions about using computer as a learning tool for

learning English language skills. However, internet connected computers are making an increasingly significant contribution to language learning in many parts of the world.

Stockwell (2007) has said that due to the effectiveness of computer technology; language learning components are learned via computer technology all over the world especially in developed countries. Current debate on the effectiveness of computer technology falls into three main categories (i) students learning outcomes, (ii) attitudes concerning the learning process and (iii) satisfaction with the learning. Zhao (2003) has mentioned that computer technology has played a vital role in our personal and professional lives, and it has become an almost inseparable part of the classroom. As a result, the rapid technological advancements in the last decades have reshaped teaching, learning and research activities. Mahmood (2012) said that technology, being an effective educational tool, has enabled us to generate new knowledge, obtain reliable information and restructure instructional techniques, methods, and approaches. Anyhow, English Language teachers accept that there is still need to make effective use of computer technology. Consequently, computers are broadly used in the teaching and learning of English. Due to this reason, approximately all over the world, countries making great efforts to use more advance innovative tools in order to enhance teaching and learning practices.

2.2.1 Effects of Computer Technology on Pedagogy

The main purpose of technology use is to have students learn better. Thus as the use of technology increases the involvement of the students in educational activities also increases because of technology effectiveness in learning. Consequently, both teachers

and students are getting the benefits of educational technologies. As a result, teachers and students get more interest in learning with technology. By the use of internet technology teachers teach across the boundaries and students interact with other students and teachers virtually all over the world. Moreover, the use of educational technology is producing positive result in the education sector. Such as, the use of technology has increased student's motivation and engagement in learning activities. Technology-based teaching and learning strategies help a student to master material and skills. The use of technology is greatly helping in the achievement of teacher's instructional goals. That's why, more and more teachers are integrating technology into their instruction. Moreover, technology-based English learning approaches offer several advantages over traditional approaches of English language learning approaches. For instance, during technology-based teaching/learning strategies teachers and learners can use ICT tools to communicate/share their experiences with other teachers and learners all over the world. Stephen, Elliott, Thomas, Cook, John, and Travers (2000) have narrated that World Wide Web offers high-speed access to expertise and resources that provide up-to-date and accurate information about any topic of interest to learners.

2.2.2 Pedagogical Development through ICT

Pedagogy is the art of teaching. Art is improved with constant practice. For this purpose, teachers need to keep themselves in touch with best practices in their profession. Therefore, it may be proved beneficial to use computer assisted instruction, computer managed leaning, technology assisted language learning etc., to improve pedagogy. Research studies have shown that computer assisted language learning (CALL) has

shown substantial academic achievement when compared with traditional teaching methods. Also, the use of ICT has commonly influenced the teacher's knowledge of the subject content. Studies have also shown that when teachers integrated ICT tools in language learning practices, they yield better results.

In fact, the most important implications of ICT tools is to transform and change traditional ideas about language learning, that is, to enable a student to construct his own content for language learning rather than merely copying it from a teacher or a book. Krause, Bochner, Duchesne, and McMaugh (2010) have stated that effective use of ICT tools and understanding of learning theories can make learning a unique experience for each individual. Majority of the educationists narrate that in today's technology-intensive society, teaching and learning cannot produce effective results without utilizing Information and Communication Technology (ICT). Thus, it is true that the effective use of ICT tools raise the standard of education by using innovative teaching practices, allowing educators to access a wide array of materials, having administrators to implement the use ICT tools in pedagogy.

ICT tools include computers, telephones, television, radio, mobiles, digital camera, audio and video tape, CDs, hand held digital devices, VCR, DVD players, internet resources etc. These ICT tools may enable teachers and educators to produce their own teaching and learning materials in local and national languages to get engaged themselves in activities and discussions about specific teaching practices that supplement traditional methods of teaching. Also, through the use of these resources, teachers, educators, and administrators may reproduce their thought and materials in distributable

media to create an archived body of knowledge. Moreover, these ICT tools could easily be tailored to upgrade teachers' subject knowledge, pedagogical practices and language teaching/learning abilities.

In addition, these ICT tools may provide opportunities to learners to develop their own materials using software based facilities, like templates, custom dictionaries etc. For widespread access, these resources can be stored in an online distributable version of digital library. However, for this to happen, teachers and administrators must understand the strategies of extending and deepening pedagogical content knowledge especially technological pedagogical content knowledge. This can easily be done by letting students to interact with resources in ways that promote their English language learning. Skinner (1965) has narrated that the use of ICT tools has affected the structure and functioning of schools, pedagogies in use, curriculum content, and students' learning achievements. In fact, technology enables a teacher to improve pedagogy by providing a framework to learners to create learner-centered environment. It provides a chance to learners to explore, investigate and learn social skills such as collaboration, logical reasoning, and creative expression to enhance learning. In fact, through the use of technology, language students can master the kinds of information that will permit them to exercise their new language in potentially powerful ways, such as publishing his text and multimedia documents in world magazines and conference proceedings. Lee (2010) has said that in turn schooling is moving from its traditional paper-based operational mode to one that is digital and networked. He has added that digital technology enhances environment for language learning by offering enhanced linguistic input to learners. Moreover, Outcomes-

focused examinations compel learners locate/search out different learning resources such as internet sites, CD ROMs, audio and video materials, broadcast shows etc.

2.2.2.1 Impacts of ICT on Traditional Methods of Teaching

Traditional methods of English learning alone are no longer able to meet the needs of the hour. Krause, Bochner, Duchesne and McMaugh (2010) have said that learning in classrooms today remains a combination of traditional book-based learning, teacher-led instruction and ICT-based learning environment. Moreover they have narrated that ICT may be used in unlimited ways to enhance the achievement of learners of all ages at all stages, because of the facts that ICT:

- Provides opportunities for gifted students to progress at a rate that is appropriate for their individual abilities
- Provide opportunities for students to develop and practice their high-level thinking skills
- Enable students to communicate with other gifted and talented students around the world
- Provide opportunities to learners to participate in a collaborative learning environment (p. 45)

2.2.2.2 Impacts of ICT on Learner's Beliefs

Theoretical perspectives usually influence the use of information and communication technology tools in teaching and learning practices. Also, teachers and students beliefs are greatly affected by the use of computer; therefore, instructional

practices need to be supported by ICT tools. Thus, traditional beliefs have been changed with the advent of new technologies created on the basis of different learning theories. Morrison and Lowther (1999) have said that early use of computers in classrooms tended to be restricted to drill and practice applications or processing. Krause, Bochner, Duchesne and McMaugh (2010) have narrated that rapid developments in internet and relative improvement in teachers' and students' skill levels in using ICTs have resulted in an increase in creative and interactive applications such as web-based learning and electronic text publishing.

During teaching with audio visual aids, it is important for a teacher to keep a predominant psychology in his mind. The teacher should decide which learning theory best facilitates him to achieve his learning objectives. There are numerous learning theories in psychology and new ones are being discovered all the time. Bebel and Kay (2010) have said that it usually takes 25 years for psychology to translate a theory of learning into practical applications for the classroom, and even the new theory does not necessarily replace existing ideas but merely competes with them. The use of ICT tools have greatly affected some theories of learning, for example:

2.2.2.2.1 Impacts of ICT on Behavioral Theory of Learning

Two major views i.e. behaviorist view and constructivist view of learning have been affected greatly by educational software. Skinner (1965) believed that learners can learn more effectively if their environment is conducive for learning. This idea of behaviorist led the learners to use computer as a teaching machine and this idea of computer use in education has been proved very influential. Behaviorists believe that

learning is a change in the behavior of a student. They believe that the best way to learn is the repetition. Students need to undergo exercises over and over until they learn the information. They view environment in terms of stimuli and response. They believe that behavior is controlled by the reward or reinforcement linking the stimuli to a positive response. The teacher is responsible to construct an environment in which student's behavior is maximized by careful organization and presentation of information in a designed sequence. Programmed instruction, computer-assisted instruction and computer assisted language learning etc., are some of the methods of integrating technology into a classroom. Actually, behavioral teachers protect the best drill and practice software, visual presentations that supported continuous positive feedback and internet sites.

Learning is defined as mastering subject matter and achieving behavioral objectives. Computers are particularly useful for this purpose. Skinner (1965) said that use of teaching machines as a way of providing immediate reinforcement is good to promote learning and to respond to individual learner's needs. In fact, behavioral learning supporters who advocate the use of computer-assisted instruction (CAI), computer-based instruction (CBI), and computer-assisted language learning (CALL) intend to strengthen behavioral principles of stimulus-response and reward-punishment. As Kulik and Bangert-Downs (1983-1984) have said that CALL can enhance achievement because it leads to update lower-level skills through extended practice.

2.2.2.2 Impacts of ICT on Cognitive Theory of Learning

Cognitive theory explains brain-based learning. Cognitive psychologists believe that intelligent technologies may also work as skilled teachers or tutors. Cognitive

theories of learning consider learning as a process of human interaction with the environment or technology or with other people to gain or change insights, outlooks, expectations, and thoughts. Moreover, cognitive theories are concerned with human perception, motivation, and thinking, which all influence how a person processes information that he or she receives. In these theories, the acquisition of knowledge is an active process stimulated by curiosity, interest and need. Psychologists believe that human construct knowledge from incoming information. Each person receives and transforms information and then constructs hypotheses according to the evidence he or she receives. Thus two people exposed to the same information could process it differently and have different outcomes of learning.

Likewise, cognitive teachers use accommodation and assimilation strategies to help the learner acquire knowledge more effectively. Thus, Jean Piaget and Jerome Bruner stressed that teachers must understand the nature of thought processes, when planning instruction. Similarly, famous cognitive psychologists, Albert Bandura and John Dewey, (as cited in Bebel and Kay, 2010) view cognition as knowledge created by an individual through various encounters with new ideas and thinking. Knowledge is a series of building blocks that the teacher places side by side in order to build up his own and others' understanding. Discovery learning, reflective learning, and information-processing based learning represent application of cognitive principles in technology based lesson design. Thus by doing so teachers who are supporters of cognitive theory, search for such educational software that allow students to personally explore a topic, build new knowledge, and represent information in accordance with his/her cognition.

Thus, it is clear that ICT plays a significant role in promoting cognitive and constructivist learning principles in classrooms. In fact, one of the key characteristics of ICT is interactivity of users in online environments. Thus text, voice, music, graphs, photos, animation and video may be combined to promote higher level thinking. Computer based environments are more conducive to engage learners as compared to traditional teacher-centered approaches. Computers can be particularly useful for teachers interested in understanding learners' cognitive and thinking processes, since computers can make students' thinking processes visible for teachers in many ways as compared to other methods of learning. For instance, word processing applications may facilitate learners to receive and edit information via screen, and also record internet searching strategies. As Krause, Bochner, Duchesne and McMaugh (2010) have said that teachers can observe students working with computers, monitor their progress, ask about students' goals, and make suggestions for revision or modification.

2.2.2.2.3 Impacts of ICT on Constructivist Theory of Learning

Constructivist believes that learning is a process of personal understanding that constructs meaning rather than memorization. They believe that ICT provide many opportunities for learning and fulfill emergent requirements of learners. Lee (2010) predicted that in the near future absolutely all the library will be one virtual library, and approximately all the databases on any subject will be accessible via common crossing point and they will include not just numbers and texts but also visual and auditory shape of information. Actually, learning is an active process in which learners construct new ideas or concepts based on their current or past knowledge. The learner selects and

transforms information, construct hypotheses and make decisions by relying on cognitive structure. Learning is more personal in this way of thinking, and knowledge is shaped by experiences in life. This theory allows the students to discover concepts, principles, laws and ideas by themselves.

Laborda and Royo, (2007) proposed that constructivism is based on the following considerations:

- The knowledge explosion is so great that the institutions of learning cannot possibly teach all the facts and concepts that exist;
- The students need to learn how to think, how to solve problems and how to create new ideas if they are to harness the information age;
- High-order thinking and problem-solving skills are needed to ensure the positive outcomes of the present society. (p. 35)

2.2.2.2.4 Impacts of ICT on Humanistic Theory of Learning

Humanism places humans at the center in learning related activities. It is a pedagogical approach that considers leaning as a personal act to fulfill one's abilities, that is, it focuses on human freedom. Humanists consider that a teacher must have a good grip of language learning theories. They think that ICT has grown to be one of the necessities of contemporary learning. They promote the idea of self-actualization, the growth of a person to achieve whatever degree of individual satisfaction he/she might be capable of achieving. Thus a humanistic teacher creates an educational environment that fosters self-development, cooperation, positive communications and personalization of information.

Open education and cooperative learning are the primary manifestations of humanism. Technology supported learning facilitates open education by making instruction an individualized activity with little reliance on textbooks. With respect to the cooperative learning, technology assisted learning is the critical area of learning. In fact, humanistic teacher is one who seeks educational software and internet sites that share learning environment to support individual and group communication.

2.3 Technological Resources Currently Deployed in Language Learning

Technology is the most important tool in language learning throughout the world. Fitzpatrick and Gordon (2004) explained that currently the following technological resources are used in teaching and learning of languages.

2.3.1 Audio devices

Audio can be employed in several academic contexts. The most popular and widely used devices are the radio, CD/MP3/MP4 player and audiocassette recorder. The web has served as an additional source of authentic listening materials.

2.3.2 Video Devices

The video devices such as DVDs, VCRs, Digital Camera, and Computers are greatly used in language learning purposes. Moreover, the search engines like Google Chrome, YouTube, Dailymotion, Torch etc. are also commonly used in language learning activities. Thus, the use of moving images linked to sound provides exposure to all important elements of spoken communication i.e. gestures, pronunciation, intonation, all embedded with natural and cultural contexts. Thus, there is an abundance of literature suggesting how to exploit videos meaningfully to facilitate language learning practices.

2.3.3 Television Broadcasts

Both satellite and terrestrial radio and television programs offer economical access to contemporary, authentic, and potentially culturally rich programs for the language learning purposes. A number of broadcasting companies still produce broadcasts, which are most effective when combined with face-to-face courses in educational institutions.

2.3.4 Radio Broadcasts

Language learners usually face troubles as he/she starts to learn a language. Radio broadcasters try to help language learners to overcome language learning difficulties. They usually launch potentially culturally rich programs for the language learners. Also, for this purpose, a number of broadcasting groups generate broadcasts, which expedite language learning practices when combine with face-to-face language learning courses in educational institutions.

2.3.5 Telephone

Audio exchange via the internet provides possibilities for real time synchronous oral communication. With the advent of digital quality and lower connection costs, there is now considerable potential for its extended use – including the possibility of conference calls.

2.3.6 Computers

With the introduction of the multimedia computer, teachers and learners have all the advantages of the above mentioned media in a compact and easily accessible form.

Computer Assisted Language Learning Software, CD-ROMs, and office software applications have become commonplace in many teaching/learning environments, and many case studies illustrate how teachers are making use of them.

Fitzpatrick and Gordon (2004) remarked that computer technology based activities of language learning focus more on using forms than on the forms themselves, teach grammar implicitly rather than explicitly, allow and encourage students to generate original utterances rather than merely manipulate prefabricated language, and use the target language predominantly or even exclusively. Mahmood (2012) has said that effectiveness of computer technology in education can be seen if appropriate hardware and/or software being selected or designed to back up a particular strategy/method to achieve a given set of educational objectives.

2.4 Effectiveness

In fact, effective teachers use a wide range of activities and strategies in order to bring effectiveness in teaching and learning practices. By reviewing different definitions of effectiveness in terms of teaching learning processes, it is the achievement of specific learning objectives. For example, McGee and Fraser (2005) said that effectiveness as a measure of the match between stated goal and its achievement. Whereas, Ahmed, Mahmood, Mhyuddin and Ghuman (2013) explained that effectiveness is the extent to which objectives are achieved. Similarly, Wojtczak (2002) said that effectiveness is the measure of the extent to which a specific procedure or service does what it is intended to do. Likewise, Gay (2000) mentioned that there is no specific limit that signifies the efficiency of the introduction of any new technology, however, if there is an increase in

the achievement from 2-10% by the use of that new technology, it can be claimed as the efficiency of that new technology.

Ahmed, Mahmood, Mhyuddin and Ghuman (2013) defined effectiveness as follows:

- i. Effectiveness is the extent to which an activity fulfills its intended purpose or function.
- ii. Effectiveness is a measure of the quality of attainment in achieving desired objectives.
- iii. The concept of effectiveness is very broad, ranging over aims and accomplishments.
- iv. With regards to education, effective education is the achievement of good moral behavior and citizenship of students.
- v. This can be defined as the limit to which the set aims or objectives of a school education program are accomplished.
- vi. Educational effectiveness can be seen in relation to quantity and equality of educational instruction given in a school. (pp. 27-28)

2.4.1 Effectiveness of Computer Technology

In fact, computer technology use usually positively impacts upon students' confidence, motivation and interest due its multidimensional role in teaching learning processes. For example, Mahmood (2012) explained that computers are interactive story tellers; excellent means to produce and present multimedia programs; vehicles for interactive communication among people; gateway to the information world; electronic publishing medium; tools for managing and assessing instruction; resources for teaching

and learning; and a private multimedia tutor. He added that when computer is connected to internet, vast educational resources can be accessed through it, for example, learners may interact with content and educational experts etc. in less traditional ways. He added that in turn, they will find opportunities to move from lower cognitive skills (identification, recall, and recitation of information) to higher cognitive skills (application, analysis, synthesis and evaluation). Actually, the use of computer technology in teaching languages has been dramatically increased all over the world since the past two decades.

AbuSeileek, Farhan, Sa'aleek and Odeh (2012) explained that with the advent of internet and multimedia, studies have shown an explosion of interest in using computers for foreign language teaching and learning. Prakash (2010) mentioned that online learners are usually known to be more motivated and responsible toward their learning than traditional students. Ismail, (2010), as cited in Al-Issa and Al-Bulushi (2012), declared that the importance of educational technology in general and computer technology in particular has been highlighted by several authors in the acquisition and learning of second/foreign languages. Yang, Gamble, and Tang (2012) remarked that recently, the application of computer technology in learning English as a foreign language has become increasingly popular. Huang and McGrath (2011) imagined that fewer research studies have been conducted regarding the use of ICT in English language learning/teaching practices.

Mahmood (2012) presumed that findings of the past if any showing limited impact of computer application on student learning are no more applicable for present or

future. Therefore, it is necessary to make teachers more and more aware of the effectiveness of computer technology so that they may get used to technological resources in classroom.

Nosheen (2005) suggested that in such cases, incentives should be provided to teachers and students so that innovative efforts introduced by them may be appreciated. Laborda and Royo (2007) assumed that in such circumstances teachers and students are likely to use computer as a tool in language teaching. Mahmood (2012) remarked that the effectiveness of computer entirely depends on the skills that the students and teachers bring to the learning process. In fact, a teacher plays the role of a facilitator, guide, and informer when he is engaged in computer-based activities.

Stephen, Thomas, Cook, and Travers (2000) have narrated that effective teaching has several features in common, for example, effective teaching has a clear focus and explicit learning outcomes that students understand and are held accountable for learning; students' attention is under the control of the teacher; material is presented in a manner that elicits active inquiry and interest; guidance is provided by the teacher as students interact with the new material or tasks; students are asked to respond/demonstrate what they have learnt; these responses/demonstrations are assessed and feedback is provided about the quality of students' learning; and effective teacher develops a strong understanding of the contents of the subject matter and teaching techniques.

2.4.1.1 Effectiveness of Computer Technology in Students' Learning

Outcomes

In fact, ICT has the potential to enhance learners' academic achievement all any level if it is effectively integrated into classrooms. On the basis this fact, Blake (2008) mentioned that when ICT was used overall students' achievement in English, Mathematics and Science was improved. Shaikh (2012) remarked that ICT plays an initiative role for the betterment of our education, health and economy. Moreover, he added that for every ten students who pass out of high school in Pakistan, only one can find admission in Universities of Pakistan, while the rest are left lost and frustrated.

In order to minimize the number of such students, a Virtual University was established in Lahore in 2001-2002 to provide high quality education to some 150,000 students in Pakistan. This opened up millions of opportunities for plumbers, electricians and other technically trained persons. In 2004, a digital library was established that provides free access to 25,000 international journals and 65,000 textbooks. Because of excellent video-conferencing facilities in Pakistan's public and private sector universities students are enjoying lectures delivered by top professors in USA, Europe, and Japan etc. Pakistan has also begun to benefit from a large number of excellent online courses that have become available internationally for distance education at school, college, and university levels. Rahman (2014) said that it is now up to schools, colleges and universities in Pakistan to integrate ICT in their academic programs.

2.5 Computer Assisted Instruction

Use of computer in education is referred by many names such as computer assisted instruction, computer aided instruction, computer assisted learning, computer based education, computer based instruction, computer enriched instruction, computer managed instruction, web based learning, and web based instruction. Computer-based education and computer-based instruction are the broadest terms and can refer to virtually any kind of computer use in educational settings. Computer-assisted instruction or computer-aided instruction is a narrow term and most often refers to drill-and-practice, tutorial, or simulation activities. Moreover, in short computer-assisted instruction is an interactive instructional technique whereby a computer is used to present the instructional material and monitor the learning that takes place. Furthermore, CAI used a combination of text, graphics, sound and video in enhancing the learning process.

2.5.1 Types of Computer-Assisted Instruction

There are two main types of computer-assisted instruction. One of them is to learn via interactive features and the other is to provide computer-assisted instruction as a supplementary material with textbooks etc. Sometimes these two are stated as 'using computer as a learning tool for the achievement of specific learning outcomes' and 'using interactive computer programs/games/lessons to ask questions or initiate activities to strengthen English language learning key areas such as vocabulary building, sentence structure, filling in the blanks with missing words, receiving feedback based on the accuracy of the word', and 'using an image, audio or video about a word/topic'.

Elizabeth (2015) explains computer assisted instruction as follows: Computers are a familiar sight in classrooms in the twenty-first century, and technology has been used to streamline many educational tasks. The educational uses of computers that are considered to be CAI are those cases in which either instruction is presented through a computer program or the computer is the platform for an interactive and personalized learning environment. CAI can be used either in isolation, bearing the whole responsibility for conveying instruction to students, or in combination with conventional, i.e., face-to-face, teaching methods. Research has shown that the combination of conventional and CAI instruction has been most effective in raising student achievement scores. Computer-assisted instruction is used through the entire range of education from preschool to professional school. It has been offered in a wide variety of fields, including all the main school subjects taught in elementary and secondary schools.

Actually, computer-assisted learning is a process in which computer programs are used to help students learn. By using these software and online resources, teachers improve instructional technology i.e. a field that uses technology to strengthen pedagogy. Moreover, by doing so, teachers are playing an important role in technology advancement by using techniques such as incorporating technology in their teaching/learning practices to increase child's interest in learning a language. Consequently, traditional methods of instruction that focuses only the use of chalk, blackboard, and textbook are improving.

As the style of learning of everyone different so a single method of instruction may not fulfill the needs of language learners. Thus, some methods are considered more effective as compared to others. However, the method that provides more opportunities

for learning a language is considered more effective. A good tip for learning a foreign language is to take every opportunity to speak with people who are fluent in the language. Similarly, immersion (living in a country where the target language is spoken as a national language) may provide chances to learn the target language outside of the class. Likewise, living in a country from which the language is originated may provide the opportunities to observe learners and culture of the target language speakers. Also, the use of software or websites that provide online language courses, video conferencing, emailing, instant messaging, foreign movies, television channels, and visiting the country from where the language originated may strengthen language learning practices.

Keeping in view the technological experiences of the learners, Mahmood (2012) has narrated that the students' current technological improvements have provided pedagogically sound ways to improve teaching and learning of English language. Different teaching and learning techniques such as computer assisted instruction (CAI), computer assisted language learning (CALL) etc., utilize a strategy of identifying a specific set of learning goals, decomposing these goals into a set of simple component tasks and finally developing a sequence of activities designed to eventually lead to the achievement of the student's learning outcomes. Thus, teachers and students have to equip themselves with the skills required for the use of new technology. By doing so they may support effective uses of technology, develop positive attitudes toward technology integration, and select appropriate new information resources for teaching and learning purposes. Thus students and teachers require specific competencies to effectively perform in technology-based teaching/learning practices. These competencies are usually developed by using appropriate software that works for the teachers and the students as

well. It is a fact, that all such software are not alike in their working that is some are better and some are good for some things but not for others.

Mahmood (2012) has narrated that software may enable their users to increase the quality of learning, improve the numbers of learners without reducing the quality of learning, reduce the costs without affecting quality of learning, increase the independence of learners, and bring flexibility in teaching-learning processes. Actually the rapid technological changes in the field of education have taken place during past thirty years. New methods and means started to be used in countries around the world to improve education through proper utilization of instructional technology. In developed countries, special attention was paid to the role of computer technology. Thus audio visual aids contributed effectively in pedagogy and presently, these aids also playing their role.

A pupil profits most from instruction when he is involved through his/her own interests. Such an involvement is possible only when concepts and principles are introduced to him/her through well chosen educational media appealing to different senses. A teacher may use specific audio-visual aids to improve senses of learners. In fact, the aids being concrete may enable the learners to secure their attention, strengthen their concepts, and ensure permanent retention of the knowledge gained. Thus, a teacher using appropriate aid can conceptualize to students a difficult concept easily. However, Nosheen (2005) remarked that teachers need to use various activities to prevent boredom and achieve the set objectives. Thus a teacher of today needs to make sure the achievement of students' learning outcomes by using right type A.V. aids.

2.5.1.1 Programmed Learning

Programmed learning is one of such techniques. In this technique the materials to be learned are arranged in graded units, according to the level of difficulty. Moreover, these materials are presented in a way that produces best understanding and retention. Thus a program is the subject matter to be learned by students while programming is to arrange the materials in such a way that follow steps of psychological and logical sequences to facilitate learners. There are two varieties of programming, that is, (1) Linear Programming (2) Branched Programming.

2.5.1.1.1 Linear Programming

In this method of programming, a pupil has to master step No. 1 before proceeding to step No. 2. This technique can be utilized as a supplementary process, along with the regular textbook. This technique is represented in fig: 2.1.

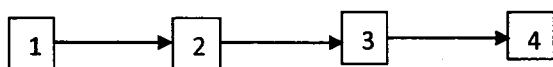


Fig. 2.1: Linear Programming (Sharma, 2009, p. 123)

2.5.1.1.2 Branched Programming

In this process there are branches and off shoots. A student is guided by the information sheet at every step. This technique can be utilized as a supplementary process, along with the regular textbook. This technique is represented in fig. 2.2.

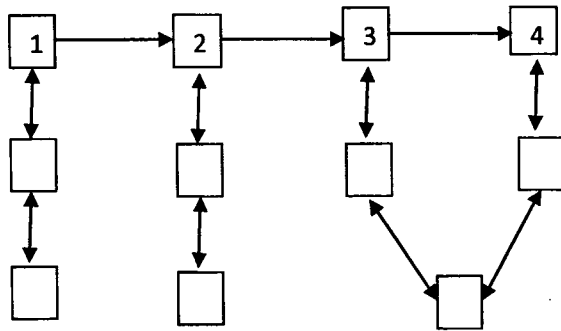


Fig. 2.2: Branched Programming (Sharma, 2009, p. 124)

Kelly (2009) has stated that technology is simply a tool that effective teachers can use to reinforce and teach important concepts and it is not the panacea for all of education's ills. However, through computer connected to internet, learners may a range of additional resources; for example, Word-processing packages that include an electronic thesaurus and spell-checking facilities etc. There are limits to what a computer can check, but it can at least highlight incorrect spellings and provide alternative words where required. Manser (2007) has suggested that computer users can choose what kind of English they would like their text to be checked in (for instance, American English or British English etc.).

Word processing software also has powerful formatting capabilities, such as it enables users to develop documents such as newsletters and brochures that require more complicated layout and graphics etc. In recent years, much of the distinction between word processing software and desktop publishing software has disappeared since word processors now include more desktop publishing features. Word processors support the process of writing by providing the features of spell checkers, grammar checkers, style analyzers, and other language analyzers. Programs are also available that analyze text readability levels to help teachers assign appropriate reading materials for students.

These packages frequently persuade students to spend more time practicing sub-skills on the computer than they would spend on pencil-and-paper activities. Now-a-days most computer software for foreign language instruction provides grammar-based drill and practice, vocabulary development, translation, text-reading and voice recognition features. Roblyer and Edwards (2000) have narrated that internet technology provides great potential to equip computer-assisted language learning (CALL) with modern techniques. Social Network Sites such as facebook, whatsapp, imo, youtube, google etc., facilitate exchanges between students of different nations.

2.5.1.2 Web-Based Language Learning (WBLL)

When students come across a concept that they have no prior knowledge about, they may use internet to extend their knowledge. Also, they can make a list of keywords related to the concept for an internet search. In addition, students may use computer to share their search results with the rest of the class in order get information about accurate resources. Furthermore, they may access websites developed for teaching/learning specific concepts. Actually, internet is a vast database of language learning related materials that has millions of documents and billions of words to be exploited for language learning purposes. Conroy (2010) has narrated that in 2006, Google indexed 25 billion web pages, that's why, web-based instruction has been on the rise as compared to traditional approaches in a plethora of studies. Lee (2010) has narrated that technology-enhanced learning seems to stimulate and support the learning process and enhance learning outcomes. Conroy (2010) has also narrated that web-based language learning

(WBLL) approach has been implemented in various institutions by language teachers to facilitate learning and teaching process.

In fact, English is the most commonly used language among ten top languages exploited for communication via internet and almost two-third of websites on the internet are in English (Argaez, 2013). As a result, many Non-English speaking countries regard English as the first foreign language and are committed to improve students' skills in English. Moreover, Mishra (2009) said that now-a-days the teaching and learning cannot be done with the textbook alone in English Language classroom. Thus the new technologies are breaking down borders and barriers at a faster rate as compared to old technologies.

By using new technologies learners interact with learners, structure their choices, search for learning opportunities, and accept challenges. Fitzpatrick and Gordon (2004) pointed out that vast linguistic materials resources are available in almost all languages on the websites ready for immediate exploitation. So it may be inferred that web-based learning will continue to expand and to be proved one of the cheapest sources of language learning in the 21st century. Thus it is inferred that ICT tools may enable learners to practice key skills of English language such as listening, reading, speaking and writing.

Shaikh (2012) has narrated that ICT tools development is turning the world into global village. The time will come when internet will become an important part of education. As it allows students to remain in touch with their tutor and with their group mates with the help of forum, chat rooms, and E-mail. Consequently, learner are also

enjoying interesting ways of language learning through internet by using different means of learning such as role play, online and offline games etc.

Information and communication technology (ICT) brings greater challenges to language learners by introducing new technologies for writing skill improvement and offering immense possibilities for writing development. Manual transcription may soon be seen as less important than the development of keyboard skills, even in very young children. Graham and Kelly (2003) remarked that many schools now have networked ICT suits and most classes have their own internet connected computers.

2.5.1.2.1 Useful Websites for Language Learning

- National Council of Teachers of English

(<http://www.ncte.org>)

The National Council of Teachers of English is the leading professional organization for improving English Language at all grade levels. The site presents information of values to K-12 classroom teachers.

- Rensselaer Writing Center

(<http://www.rpi.edu/dept/llc/writecenter/web/handouts.html>)

The Rensselaer Writing Center provides guidance in writing abstract, cover letters, laboratory reports, memos, and resumes; plus gives suggestions on revising prose and writing using gender-fair language.

- Guide to Grammar and Good Writing

(<http://webster.comment.edu/HP/pages/darling/grammar.html>)

This site includes sentence level, paragraph level, and essay level help and has “Interactive Quizzes”, “Ask Grammar” and a “Grammar Log”.

- The Children’s Literature web Guide

(<http://www.acs.ucalgary.ca/dkbrown/index.html>)

The children’s literature web guide is an attempt to gather and categorize the growing number of Internet resources related to books for children and young adults. This site includes such features as “Best Books”, “Web-Traveller’s Toolkit: Essential Kid Lit Websites”, and “What we’re reading: Commentary on Children’s Books”.

- KidPub

(<http://www.launchsite.org/meeting/meet02.html>)

This site has a collection of more than 11,000 stories and poems written by young people.

- American Council on the Teaching of Foreign Languages

(<http://www.actfl.org>)

This site is for the major organization of foreign language teachers. It includes a variety of resources for teaches.

- Language Links – Teaching with the Web

(<http://polyglot.lss.wisc.edu/lss/lang/teach.html>)

This site presents a combination of ideas for using World Wide Web resources as a language teaching tool. It also offers links to sites that have pedagogical information.

- FL Teach

(www.cortland.edu/www-root/flteach/flteach.html)

Foreign language teaching methods are listed including classroom activities, curriculum, and syllabus design.

- Internet Activities for Foreign Language Class

(<http://members.aol.com/maestro12/web/wadir.html>)

Favorite teacher URLs – use these web sites to write your own Internet activities. There are 480 links to authentic documents on the web. They include geography, newspapers, foods, sports, music, literature, museums, artists, leisure, history, holidays/celebrations, weather, search engines, and comics.

- Language Learning and Technology

(<http://polyglot.cal.msu.edu/llt>)

This is the site for the language learning and technology journal. Selected articles from the current issue are online.

- Lesson Plans Page

(<http://www.lessonplanspage.com/>)

- A to Z Teacher Stuff

(<http://atozteacherstuff.com/>)

- Education World Lesson Planning Center

(http://www.education.world.com/a_lesson)

- Wiki Spaces for Educators

(<http://www.wikispaces.com/site/for/teachers>)

- EduBlogs

(<http://www.edublogs.org>)

(McDonal and Hershman, 2010, pp. 48-51)

2.5.1.2.2 Useful Apps for Language Learning

Learners of English language usually use different computer based software and mobile apps to improve their English Language skills. For example, for reading comprehension skills improvement learners usually use latest computer software and mobile apps, such as (i) English Vocabulary Builder (ii) Games To Learn English Vocabulary (iii) Idioms with Urdu Translation (iv) Urdu English Idioms (v) English to Urdu Dictionary (vi) Learn English Grammar in Urdu (vii) U-Dictionary (viii) Easy English Urdu Translation (ix) Google Translate (x) Prepositions with Urdu Meaning (xi) Learn English in Urdu (xii) Master 10000 Words (xiii) Reading Comprehension (xiv) Reading Skills (xv) Antonyms Synonyms (xvi) Synonyms Antonyms Dictionary (xvii) Concise Oxford Thesaurus (xviii) Figures of Speech (xix) English 5000 Words with Pictures and (xx) CAT (Computer Assisted Translation) etc.

Whereas, for Grammatical Skills improvement learners usually use advanced software and mobile apps such (i) English Relative Pronouns (ii) English Test: Pronoun (ii) Sentence with Exercise (All types of sentences) (iii) 12 Tenses (iv) Basic Grammar Rules (v) English Grammar (vi) Parts of Speech English Grammar (vii) Figures of Speech (viii) 5555 English Grammar Tests (ix) Mastering Prepositions and (x) Learning English Nouns etc.

Similarly, for the improvement of learner's Oral Communication Skills learners of English usually use computer software and mobile apps such as (i) Learn Phonics (ii) Learn Pronunciation (iii) English Pronouncer (iv) English Communication (v) English Listening and Speaking (vi) IELTS Listening (vii) IELTS Speaking (viii) English Conversation (ix) Learn Syllables – English (x) Phonetic Chart (xi) Stress Training (xi) British English Listening (xii) Learn English with Videos (xiii) Group Discussion Topic and Tips (xiv) Role Playing Forums and (xv) English Conversations etc.

Similarly, in order to improve Writing Skills English Language learners usually use computer software and mobile apps such as (i) Composition Five in One (ii) Eng-writing Demo (iii) English Easy Essay (iv) English Spelling Rules (v) Essays (vi) IELTS Essay (vii) Mind Map Creator (viii) Spelling Master (ix) 6000+ English Paragraphs and (x) All Screen Mirror etc.

2.6 Language Teaching Methodologies

A method is a plan for presenting the language material to be learned. A plan is based upon an approach. A method for obtaining its specific name, applies different types of techniques to design an instructional system to achieve objectives of the

teaching/learning, organize and present the content of subject matter, list the types of tasks to be performed, specify the roles of students and teachers etc. So a technique (or strategy) is a very specific trick designed to accomplish learning objectives.

A method may be structural such as Grammar Translation Method (GTM) and Audio-Lingual Method, functional like Situational Language Teaching Method (SLTM) or interactive such as Direct Method of Teaching, Communicative Language Teaching. Globalization has created a need for people to communicate in multiple languages. Multiple languages are used in areas such as trade, tourism, international relations, technology, media, and science. Countries, such as China, Japan etc., are recently putting enormous importance on foreign language learning, especially the English language.

2.6.1 Traditional Methods of Language Teaching

A brief summary of some of the more popular second language teaching and learning methods is as under:

2.6.1.1 Grammar Translation Method of Teaching English

Grammar Translation Method largely uses translation to and from the target language for language learning. For this purpose, grammar rules are to be memorized and long lists of vocabulary are to be learned by heart. In GTM little or no emphasis is placed on developing speaking ability. It is a method of teaching foreign languages derived from the traditional method of teaching Greek and Latin. Through Grammar Translation Method learners learn grammatical rules. Then they applied those rules to translate

sentences of target language and vice versa. Advanced students were given whole texts for translation.

This method has two main goals: to enable students to read and translate literature. Actually, it was originated from the practice of teaching Latin; in the early 1500s. In the 19th century, English language learners also started to learn English Language like learning Latin that originated GTM for English language learning. At first it was believed that teaching modern languages was not useful for the development of mental discipline and thus they were left out of the curriculum. When modern languages did begin to appear in school curricula in the 19th century, teachers taught them with the same grammar–translation method as was used for classical Latin and Greek. As a result, textbooks were essentially copied for the modern language classroom.

2.6.1.1.1 Principles and Goals of Grammar Translation Method

The two main goals of GTM were to develop students' reading ability to a level where they can read and write literature in the target language; and to develop students' general mental discipline. The users of foreign language wanted simply to note things of their interest in the literature of foreign languages. Therefore, this method meeting point is the development of reading and writing skills. Thus this method places special emphasis on reading and writing skills to develop language learning practices.

2.6.1.1.2 Main Features of Grammar Translation Method

Grammar translation method classes are usually conducted in the students' native language. Students learn grammar rules deductively; then they practice these rules by doing grammar drills and translating sentences to and from the target language. Students pay more attention to the form of the sentences being translated than to their content. When students reach more advanced levels of achievement, they may translate entire paragraph from the target language. Tests usually focus on translation of classical texts. There is rarely any listening or speaking practice to promote pronunciation or any other communicative aspects of the language.

2.6.1.1.3 Materials Used in Grammar Translation Method

A textbook is usually the main source of learning in grammar translation method. A textbook usually starts with bilingual vocabulary list, after which there are grammar rules for students to study and then sentences to be translated in the target language. It is true to say that Grammar-Translation Method is still widely practiced even though it has no advocates. It is also a method for which there is no theory. Also there is no literature that proposes a rationale or justification for it or that endeavor it to issues in linguistics, psychology, or educational theory.

2.6.1.1.4 Influences of Grammar Translation Method

The grammar translation method was the standard method through which languages were taught in schools from the 17th to the 19th century. After 19th, linguists began to talk about what the grammar translation method was missing. They supported leaning a language not learning about a language. Thus learner started to correct their

own mistakes following online resources and textbooks. However, in developing countries, such as Pakistan, India, Iran etc., grammar translation method is still the most used method in English Language learning practices.

2.6.1.2 The Direct Method:

Naik (2013) has narrated that direct method is a method of teaching language directly establishing an immediate association between experience and expression, between the English word, phrase and its meaning through demonstration, dramatization without the use of the mother tongue.

2.6.1.3 Audio-lingual

In this method new language is first heard and extensively drilled before being seen in its written form. The idea behind this method is that learning a language is to acquire habits. Every situation dialogues are practiced while learning a language via this method.

2.6.1.4 The Structural Approach

This method sees language as a complex of grammatical rules which are to be learned one at a time in a series. So for example the verb "to be" is introduced and practiced before the present progressive tense which uses "to be" as an auxiliary verb.

2.6.1.5 Total Physical Response (TPR)

TPR works by having the learner respond to simple commands such as "Sit down", "Stand up", "Close your eyes", "Go to the door and open it." The method stresses the importance of listening comprehension.

2.6.1.6 Communicative Language Teaching (CLT)

The heart of this method is to enable the learner to communicate effectively. The contents of CLT are functions such as inviting, suggesting, complaining or notions such as the expression of time, quantity, location etc.

2.6.1.7 The Silent Way

In this method of teaching a teacher is to say as little as possible in order that the learner can be in control of what he wants to say. Mother tongue is not used in this method of teaching.

2.6.1.8 Community Language Learning

In this method strong personal links are built between the teacher and student so that there are no blocks to learning. Much talk is taking place in the mother tongue which is translated by the teacher and repeated by the student.

2.6.1.9 Task-Based Language Learning

The focus of this teaching method is on the completion of a task which in itself is interesting to the learners. Learners use the language to complete the task and there is little correction of errors.

2.6.1.10 The Natural Approach

This approach stresses the similarities between learning the first and second languages. There is no correction of mistakes. Learning takes place by the students being exposed to language.

2.6.1.11 The Lexical Syllabus

In this approach, computer analyzes the text and identifies the most common (and hence most useful) words in the language and their various uses. The syllabus teaches these words in the order of their frequency, and great emphasis is placed on the use of authentic materials.

In fact, in a traditional classroom, the teacher plays the role of importer of knowledge. Kumari (2004) has said that the traditional style of education is boring for the learners. In fact, foreign language teaching and learning has been viewed as a combination of techniques that enable a learner to learn the grammar rules and memorize the vocabulary. Moreover, majority of the activities are designed to activate the mental faculties, none of them, trying in any way to create the ability to communicate in the target language. Thus in such a situation, the teacher occupies a place of supreme authority. Ali and Shafqat (2005) has narrated that though the Grammar Translation Method is thought to be the oldest in the line of conventional methods, the Direct Method and the Audio-Lingual Method also share some of the characteristics. Lee (2010) has stated that Grammar Translation Method based teaching does not give more importance to listening and speaking activities.

2.6.2 Computer Assisted Instruction

Computer-assisted instruction (CAI) is an interactive instructional technique whereby a computer is used to present the instructional material and monitor the learning that takes place. CAI uses a combination of text, graphics, sound and video in enhancing the learning process.

Use of computer technology can make learning and teaching practices interesting and learner-oriented. Thus instructional technology has the potential for moving the old traditional education process from a teacher-focused structure to highly flexible learner-focused. Similarly, Nosheen (2005) reported that instructional technology is necessary for education and to be educated in the 21st century. The use of technology in the classroom cannot be ignored. It is impossible to separate instructional technology from training and education. Moreover, instructional technology is a field that endeavors to integrate scientific research, educational pedagogy and psychology, and technology into learning situations or problems resulting in greater learning and intellectual achievements. Mahmood (2012) has narrated that technology literacy is a critical factor in equipping students with the skills and knowledge necessary to succeed in the 21st century. Feray (2009) has narrated that studies in educational technology were not started when the term used but when educators started to ask themselves how information can be presented to learners in a better way.

In fact, there are numerous different types of technology available to teachers, each of which can be used in a different way to facilitate learners to achieve the learning objectives, provided that the teacher uses technology in a constructive way. Using technology may also help to prepare students for the technology-centered world. For these reasons, it is important to research how technology can be implemented into classrooms. Technology can be immensely helpful in the development of lessons, provided that the teacher uses technology in a constructive manner. It is important to research how technology can be implemented into classrooms and schools. It can be seen that some teachers use technology regularly, other teachers use technology occasionally,

and some other teachers do not feel comfortable using technology in the classroom while teaching. Technology should be made available to teachers so that they feel comfortable with the technology and use it on a regular basis. Fitzpatrick and Gordon (2004) said that all schools need to develop its web site to share its knowledge and experiences with other schools.

In fact, computer technology provides new possibilities for teaching English pronunciation and provides opportunities for teachers and learners to engage in active communication that facilitates the process of teaching and learning English. As learning of a language is clearly a matter of interaction between the child and his/her environment, so computers may provide many reading activities such as recognizing familiar words, using word patterns, and using earlier knowledge and context to understand meaning of the text. Huang and McGrath (2011) has narrated that positive attitudes were reported from students taking part in online reading programs. There is a significant relationship between implementing computer programs and increasing children's reading skills. For this purpose, using hypertext may allow the readers to control the sequence in which information is read. El-Omari (2015) has said that a number of studies explored students' attitudes about hypermedia reading and found that students have positive feelings toward it. Keengwe and Kang (2012) has said that surprisingly, studies that compared CALL reading classrooms to traditional classrooms suggest that CALL reading does not significantly increase reading comprehension scores. Egbert, Huff, Mcneil, Preuss, and Sellen (2009) have narrated that second language reading is commonly described as a complex cognitive process involving the interaction of numerous factors that may be accessed through computer technology. They have also narrated that the widespread use

of web page creation programs, such as Dreamweaver or FrontPage, as authoring tools for generating web-based learning materials, has enabled students to become authors as they present their work, produced either individually or in collaboration with other students. Such tools naturally support student-centered and constructivist learning models.

Actually, the use of ICT tools in ESL writing classroom has shown that ICT supports and encourages students to increase their writing skills in terms of quality and quantity. Yunus (2012) has narrated that there are some disadvantages of using ICT in the teaching of writing skills such as, ICT tools distract students' attention in the classroom and provide a tendency for the students to use short forms and informal abbreviations in their writing tasks. However Gillian (2009) has said that we save 20% of what we hear, 40% of what we see and hear, and 75% of what we see, hear and do, therefore, integration of ICT in teaching and learning practices is extremely beneficial.

2.7 Lesson Planning

Lesson planning is a significant component of teaching-learning arrangement. A lesson plan is a step-by-step guide that gives a work plan for learning. It is central because it assist the teacher in maintaining a standard teaching pattern and does not allow the class to be deviated from the subject.

Each plan has different steps, for example, Herbartian's Plan has the following steps:

(1) Introduction or Preparation

(2) Presentation

(3) Comparison or Association

(4) Generalization

(5) Application

(6) Recapitulation

(Sharma, 2009, p. 37).

McGee and Fraser's Lesson Planning steps are as under:

| Objectives | Activity | Resources | Assessment |
|--|---|---|--|
| <ul style="list-style-type: none">• Explain the kinds of Noun. | <ul style="list-style-type: none">• Children to note the nouns of things, persons and places in the school. | <ul style="list-style-type: none">• Pen, Paper, Chalk, books. | <ul style="list-style-type: none">• To find out if children understand nouns. (discussion) |

(McGee and Fraser, 2005)

For teachers, planning is the act of organizing and arranging teaching and learning situations. It is therefore, considered critical that teachers, have sound content knowledge of the material they wish to teach. Moreover, planning is the key to effective teaching. Therefore, teachers need to have sufficient subject knowledge to plan their lesson in order to teach the students effectively, and to be proved effective planners and classroom

managers. Therefore, majority of the teachers write plans prior to putting any classroom program into action.

2.7.1 Model Lesson Plans

Some model plans are as under:

2.7.1.1 Lesson Plan for Teaching Poetry

Subject: English

Topic: Daffodils written by William Wordsworth

Class: IX, Period Duration: 40 Minutes, Average Age of Students: 14 years

Aims

- (a) To enable the pupils to read the poem with expression and correct pronunciation
- (b) To lead pupils to follow the ideas and gist of the poem i.e. to be happy in life, make the world a better place, to fight against evils doers.
- (c) To have the pupils to appreciate the beauty of the poem.

Previous Knowledge

The pupils have read simple narrative and descriptive poems in English and are able to follow and appreciate them.

Introduction

William Wordsworth was introduced briefly as follows. William Wordsworth was a famous poet. He has written many poems. His poems are full of joy. In his poems the

main message is to enjoy natural beauty of the natural world by living a pleasant life and letting others to spend beautiful life too.

Presentation

The teacher read the poem with feeling and expression so as to bring out the meaning of the poem. Silent reading was done by the pupils for a few minutes. Later on, some students read it turn by turn.

Study of the Poem

Matter

Stanza 1

The poet wishes that we should laugh and be happy and should enjoy the nature.

Method

The following questions were asked to know the meanings and ideas given in the stanza.

(a) What does the poet want us to do?

Recapitulation

Pupils were asked to revise the stanza quickly and silently, and answer the given questions.

(a) Why does the poet want us to visit nature?

(b) Describe the things compared with life.

(c) Give a theme to the stanza.

Assignment

Try to reproduce the stanza from your memory.

Black Board Summary

Words, phrases meanings were written on the white-board, before starting to teach the poem to the class.

2.7.1.2 Lesson Plan for Teaching Prose

Subject: English

Topic: Use of Article “The”

Class: IX, Period: 40 Minutes, Average Age: 14 years

Material Aid: Ordinary Classroom Aids

Aims

To enable the pupils to understand the article ‘the’

Previous Knowledge

The pupils know about the use of articles ‘a’ and ‘an’ and they are able to use them in sentences.

Introduction

However, in order to test their previous knowledge the following sentences will be given and the pupils will be asked to fill in the following blanks with ‘a’ or ‘an’.

(a) I sold ____ car.

(b) He is ____ honest man.

Questions: (1) what part of speech is “a”?

Presentation

The teacher wrote the following sentences on the white-board and asked the pupils what 'the' indicates in these sentences.

(1) I gave him the book he needed.

(2) Let's go to the shop.

Matter

(a) It refers to a particular book.

(b) It refers to a particular shop.

Method

(1) What does 'the' refer to in sentence number 1?

(2) What does 'the' refer to in sentence number 2?

Generalization No. 1

When we refer to a particular object, person or place, already known to the speaker, we use 'the' before it. The teacher will write the following sentences on the white-board:

(1) The lion is the king of all beasts.

(2) The rose is the sweetest of all flowers.

Generalization No. 2

'The' is used before the names of rivers, mountains, seas, and oceans.

(1) The sky is cloudy

Application

The following exercises will be given in order to test the knowledge of the pupils:

(a) Rewrite the following sentences inserting correct article where needed:

(1) Sun shines brightly.

(2) Apple that Ali bought is red.

White-board Summary

(1) The Sun shines brightly.

(2) The apple that Ali bought is red.

(Sharma, 2009, pp.58-68)

2.7.1 Lesson Plans on the Internet

Internet has the advantage of bringing a wide range of topical, colorful and data rich sources of information for lesson planning purposes.

Butt (2006) remarked that:

Internet-based lesson plans may be used to manipulate, edit and re-form text and data of lesson plans in order to improve the presentation of materials. It can speed up the creation of graphics, diagrams and maps. It can increase opportunities for communication and collaboration, while allowing more time for discussion, analysis and autonomous learning. Many teachers now search for teaching resources on the Internet. Internet sources also have the advantages of providing teachers with topical information, including a vast array of textual, visual and

statistical information that can be included in the lesson plans (Butt, 2006, pp. 25-57).

2.7.2 The Quality of Web Based Lesson Plans

Many of the websites now dedicated to providing teachers with lesson plans. Krause, Bochner and McMaugh (2010) have narrated that when searching the internet, it is useful to accept it if it has the following strengths and reject it if it has the following weaknesses.

| Strengths | Weaknesses |
|---|--|
| <ul style="list-style-type: none">• An infinite number of resources and quantity of information. | <ul style="list-style-type: none">• No framework or format – a mess and no central catalogue. |
| <ul style="list-style-type: none">• A two-way communication at little expense. | <ul style="list-style-type: none">• Hard to find what an individual wants. |
| <ul style="list-style-type: none">• Developing multimedia. | <ul style="list-style-type: none">• Encourage browsing rather than serious searching or reading. |
| <ul style="list-style-type: none">• Information, mainly in English. | <ul style="list-style-type: none">• No quality control of information. |
| <ul style="list-style-type: none">• Resources are constantly formatted and updated. | <ul style="list-style-type: none">• Difficult to censor unsuitable material. |
| <ul style="list-style-type: none">• Encourages links to other sources making connections between ideas. | <ul style="list-style-type: none">• Slow to load graphics, movies, and sounds. |
| | <ul style="list-style-type: none">• Difficult to censor unsuitable |

- Information is free. material.
- Spontaneous, innovative.
 - Contains bias, prejudice and error, not ungovernable, unstoppable, have no national boundaries.

(pp. 78-79)

2.8 ICT and the Process of Curriculum Development

Corwin (2011) has said that a good working definition of curriculum is the knowledge and skills that schools are held responsible for. Therefore, curriculum may be a set of subjects or subject content or a program of studies or a set of materials or a set of performance objectives or a course of study. However, Oommen (2012) has also said that curriculum is everything that is taught both inside and outside school directed by the school or planned by school. So curriculum is a series of experiences undergone by learners in school or as a result of schooling. Thus curriculum is closely linked to information and communication technology tools. So the use of ICT tools develop curriculum and curriculum increases the use of ICT tools.

2.9 Evaluation of Students' Learning Outcomes

In fact, teachers must be aware of the things that work in teaching and that does not. Formative assessment is conducted to discover information about students' errors and progress, so that new plans are set to improve student performance. For this purpose, teacher can use performance measures such as tests, quizzes, questionnaires, interviews, and observations to observe students' behaviors. On the basis of such measures teachers

may determine what the students already know and what they need to know. Also, teachers may plan instruction that is appropriately challenging and effective. Taiwo (2008) has narrated that a good measuring instrument usually has three most important attributes i.e. validity, reliability and usability. So a good decision is based on the availability of accurate information and accurate information can be obtained by the use of good instruments.

2.11 Advantages and Disadvantages of Technology Use in Language Learning

Technology has greatly changed learning abilities of the students. The discussion about advantages and disadvantages of technology will help to select appropriate technological tools for effective learning. Actually, current computer technology has many advantages for learning.

2.10 Advantages of Technology Use in Language Learning

In fact, there are some very important advantages of technology in teaching-learning processes, such as, (i) technology offers great potential for the speed and style of learning; (ii) technology-based learning let any type of learner, whether gifted or disabled, receive his/her required information; (iii) Technology promotes student's interest in learning; (iv) Technology promotes paperless transactions; (v) Technology offers tremendous storage and saving capability; (vi) Technology provides convenient way to buy services and products; (vii) Technology is an excellent medium for collaborative working; (viii) Technology opens doors for world-wide communication; (ix) Technology promotes creativity; (x) Via technology reliable information can be

obtained within a short span of time; (xi) Via technology contents can be edited and updated easily; and (xii) technology adds tools that facilitate access to people, content, strategies, and activities to make learning a personal process and collective as well.

2.11 Disadvantages of Technology Use in Language Learning

In fact, application of computer technology still has its limitations and disadvantages, for example, it cannot replace teachers. Also, many classrooms have been retrofitted with smart board and computer but that has not replaced old methods of teaching so far. Koyama and Takeuchi (2004) narrated that some students may not be exposed to computers and other technological tools because of their socio-economic status. These disadvantages may be (i) Equipment rapidly becomes outdated; (ii) Some schools misuse technology, for example use technology for drill and practice only; (iii) Usually technological tools are expensive; (iv) Students may waste time if left unsupervised; (v) Technology may be dangerous if it is used improperly; and (vi) Via technology use, controversial ideas of information may take place.

2.12 Factors Hindering the Use of Innovative Techniques in Pedagogy

Levy (2009) has indicated that the use of computer has a positive effect on the achievement level of second language learners, for example, computers software and mobile apps may provide second language learners more independence as compared to learning from only textbook, through computer technology based learning students may give more time to those parts of second language learning that are hard to learn such as stress, intonation, and pronunciation; however, the use of computer technology may increase educational costs, harm the quality of education if not properly used, teacher and

student may be unable to utilize computer if he or she lacks training in the uses of computer technology (as most of the teachers today do not have a sufficient technological training to guide their students exploring computer assisted language learning programs), and computers cannot handle unexpected situations.

2.13 Review of Related Research Studies

The review of available related studies is as under:

Nosheen (2005) found that the application of computer-assisted instruction as supplementary strategy in teaching Biology was more effective than traditional method of instruction in increasing academic achievement of students. Similarly Tabassum (2004) found that students who received computer assisted instruction showed greater increase in their academic achievement in science.

Likewise, Orndorff (1987) started a course at Duquesne University in Pennsylvania that combined the teaching of reading skills with computer aids that provided different kinds of support. He employed two computer programs focusing on critical reading and thinking. The first one was designed to teach students how to analyze a work of literary genre and structure and to be used with a book. The second one allowed teachers to form tutorials which featured different types of question and answer formats, an on-line dictionary, screen manipulations. These two programs also had different activities such as summary writing and short essay questions. The findings depicted that due to such programs, the students' levels of achievement was increased.

Likewise, Keengwe and Hussein (2012) collected data for two years for the two schools to assess the achievement gap between English language learners utilizing

computer-assisted instruction in the classroom, and English language learners relying solely on traditional classroom instruction. The findings indicated that the students who used computer-assisted instruction did better than the students who relied solely on traditional classroom lectures. Additionally, they were significantly close to the achievement gap more than those who did not use computer-assisted instruction. The schools that implemented computer aid curriculum have also higher means in reading, language arts, and math.

Similarly, Bano (2007) remarked that the use of video clipping was effective in teaching reading and writing skills.

Ahmadi (2018) reviewed some important issues pertinent to the use of technology in language learning and reported as follows:

Teachers need support and training for integrating technology into languages teaching. It is a resource that can be used by learners because it helps them solve their learning problems and find methods to use what they have learnt in ways that are effective and meaningful. The use of technologies plays a key role in language learning based on their own pace, helps in self-understanding, does not stop interaction with the teacher, and creates high motivation in learners for the effective learning of language skills. It has a crucial role in developing learners' creativity and provides them with interesting, enjoyable, and exiting alternatives to study the language. Technology provides interaction between teachers and learners, provides comprehensible input and output, helps learners to develop thinking skills, makes learning and teaching becomes

more student-centered, promotes learners' autonomy and helps them feel more confident, and increases learners' motivation to effectively learn a foreign language. (pp. 23-25)

Malik (2005) reported that media (newspaper, news channel etc.) heavily rely on the use of computer technology to receive and deliver news. Many researchers believe that this is the right time to incorporate computer technology into the education system. Nearly all institutions have websites that not only have information about different departments but also have information about getting admission and register for classes. Teachers who get training via computer technology may produce computer literate students and teachers. Such teachers may use computer based instructional material in their classes at their school where they have been working. The use of computer based instructional material might increase the interest and motivation of the students. The textbooks may be modified according to the need to use computer based instructional material. (p. 24)

Similarly, Arroyo (1992) studied the effect of using computers on reading achievement of seventh grade students. The findings showed a statistically significant increase in reading achievement of the subjects who used computers.

Neri, Mich, Gerosa and Giuliani (2008) remarked that the use of computer assisted pronunciation training (CAPT) and computer assisted language learning (CALL) to support pronunciation in a second/foreign language is becoming more and more widespread. However, very little is known about the actual pedagogical effectiveness of these systems, especially when young learners are considered.

Similarly, Fletcher and Atkinson (1972) found that the academic achievement of CAI users was better than the academic achievement of the students who did not use CAI.

Tahir (2005) found that learning through use of information technology (CBI and CBL) has long lasting effects. The below average students retained more than the average and above average students. In Pakistan context, it may be speculated that most of the below average students belongs to lower socioeconomic status and they do not have access to information and communication technology. Therefore, when these students gets opportunity to computer and related technologies, they take it quite serious and get involve thus by retaining the learnt matter for a long time as compared to the other students who do not take ICT seriously. In spite of searching, no such study was found, perhaps, the reason is that most of such studies are carried out in developed countries where almost people have medium or high socioeconomic status. (pp. 27-30)

Awan (2003) conducted a study titled "Effectiveness of Educational Technology for Promoting Special Education in Pakistan". He found that the use of educational technology promoted critical thought and creative thinking in teachers. Educational technology provided an appropriate system for storing instructional material. Educational technology provided a systematic approach to achieve curriculum objectives. Educational technology opened door to new and less expensive access to learning experiences. Educational technology promoted cooperation and coordination of teachers with parents. Educational technology introduced innovative instructional practices for remedial teaching. Educational technology provided students direct and immediate feedback which activated students' background knowledge for new learning. Educational technology

helped to change teacher's role from expository teaching to facilitating teaching. Educational technology helped teacher to know students' receptive and expressive language ability. It facilitated identification of problems with articulation and assessed the fluency that affected production of spoken language. Educational technology helped in developing speaking skill. Educational technology helped teacher to create self-confidence that facilitated functional skills. Educational technology arranged tools to accomplish instructional tasks. Educational technology encouraged shift from dry lecturing to activity oriented teaching. Educational technology provided tools for measuring performance level. Educational technology facilitated fluency-building activities. Educational technology facilitated reading of students having low vision. Educational technology offered variety of learning opportunities like word processor with words synonyms, google translator, and computer assisted instruction to read and listen to information. Educational technology facilitated teachers to encourage and motivate recreational activities. Educational technology provided access to learning resources. Educational technology facilitated continuity of educational activities at home and created easy link between school and home. Educational technology promoted healthy relationship between teacher and parents. Educational technology helped to know the progress of students. Educational technology encouraged teacher to become self-reliant. (pp. 25-37)

Hussain (2004) remarked that learning with the help of latest technologies was more effective and efficient and students were interested to learn through emerging technologies. Computers had disseminated theoretical and practical activities for remedial teaching and learning providing text and graphics. Computers had promoted active

involvement of students in learning. Computer programs were effective and helped in the achievement of objectives. Internet had promoted opportunities of having latest information of learning on students' pace. Internet enabled students to gain new learning experiences. Internet was effective and students got a variety of relevant material on the topic through internet. Educational television promoted effective communication and interaction between teacher and student covering vast area. Educational television had created awareness to adopt good learning experiences from other countries. Lectures through educational television were useful and covered whole of the course. Teleconferencing facilitated the students for direct and immediate information on the related areas through best teacher's presentation on the subject. Videoconferencing has promoted active participation of students in learning activities. Competent and best teachers were engaged to deliver lectures through teleconferencing. Learning through teleconferencing has achieved the objectives of the course. Teachers' pedagogical skills have been improved by using emerging technologies. Emerging technologies had facilitated teachers to provide instruction to the large classes. Computer had supported teachers to give instruction as remedial teaching. Students are getting education effectively by using computers. Computer had supported teachers by involving student's more senses for effective teaching and learning. Computers had increased financial pressure on students. Teaching through computer proved to be successful. Instruction offered by computer had covered whole of the course. Students like the instruction given by computer. Internet promoted opportunities of sharing teaching experiences. Internet helped to cover the teaching difficulties by providing suitable material and latest information. Internet is an effective medium for quick feedback. Internet proved effective

in achieving the objectives of the course. The internet as medium of instruction was quite expensive. Internet users faced technical problem of virus and software problems. Problems of electricity failure have affected the teaching learning process. Provision of teleconferencing facility to remote areas is not easy. Emerging technologies had help academicians to deliver suitable information in an effective way. (pp. 23-38)

Hung and Hsu (2007) imagined that the use of computer-based technology continues to increase rapidly in schools as well as homes; it seems inevitable that CBT will impact not only practical classroom teaching and learning strategies, but even the pedagogical theories which stand behind them, with an ever greater force.

Ibrahim (2010) remarked that our schools and universities should be equipped with computers and internet services not just tools to learn a language, but they contribute to different aspects of educational development and effective learning, otherwise we will be wading in the mud of the traditional methods inefficiency if we do not exploit ICTs more effectively and efficiently to attain our goals to adjust to the best quality.

Baytak, Tarman, and Ayas (2011) carried out a research study on the role of technology in language learning. The results revealed learners' learning was improved by integrating technology into the classroom. Learners stated that the use of technology in school makes learning enjoyable and helps them learn more. Learners also said that technology makes learning interesting, enjoyable, and interactive. The other outcome of this research was that the use of technology increases learners' motivation, social interactions, learning and engagement. They also performed a research towards the effect

of technology on learning. The findings obtained from this study revealed that learners increased their learning through incorporating technology into their classes. (pp. 45-48)

Perego and Boyle (2012) carried a study on using technology in order to improve learners' reading and writing skills. The results of this study indicated that technological tools enhanced learners' reading and writing skills because they are user-friendly, and learners can learn at a faster and more effective way. The other finding of this study was that learners learned more effectively when they used technological tools as compared to traditional methods of teaching.

Alsalem (2014) conducted a study about using whatsapp applications to improve learners' writing, vocabulary and speaking ability in English. Based on the results of this study, it was concluded that Whatsapp showed improvement in learners' writing skills, speaking skill, and vocabulary building. Godzicki, Godzicki, Krofel, and Michaels (2013) performed a study on examining students' motivation and engagement in the classroom with the use of technology. The findings of the study showed that students were more likely to engage in classroom when technology was used as an educational tool inside the classroom. (pp. 46-56)

Lin and Yang (2011) performed a study to investigate whether Wiki technology would improve learners' writing skills. Learners were invited to join a Wiki page where they wrote passages and answered the passages of their fellow classmates. Learners indicated that the immediate feedback they received increased their reading and writing skills. Moreover, the learners learned vocabulary, spelling, and sentence structure by reading the work of their classmates. (p. 34)

Conroy (2010) and Wang (2011) studied the effects of the application of ICTs in facilitating students' L2 learning. They found that ICTs have potential benefits for students' L2 proficiency. Korte and Husing (2006); Grabe and Grabe (2007) remarked that the benefits of Information Communication Technology (ICT) integration into classroom have been well documented in educational research.

Similarly, McGrath (2007) explained that trainees completed the courses with multimedia in one-third of the time as compared to those who received traditional instructions and reach competency level was up to 50% higher. There are several studies that have highlighted the benefits of use of educational technology in the achievement of students' learning outcomes. However, one of the main advantages of adopting innovative technologies is a direct interaction with global network of language learners. Mahmood (2012) remarked that PADs would be the most wanted technology in the future for teaching/learning purposes. Godzicki, Godzicki, Krofel and Michaels (2013) concluded that, while comparing the outcomes of laptop users and their non-laptop user counterparts, (i) Laptop users used a more constructive approach in the achievement of learning objectives, (ii) they felt more comfortable and empowered in their learning, (iii) they spent less time in the attainment of learning outcomes, (iv) they had fewer classroom management problems, (v) they were more engaged in the classrooms.

Rimrott (2015) reported in teacher-talk-tech survey that classroom computer availability and accessibility increased students' academic achievement on standardized tests. Mahmood (2012) has also narrated that there is an increasing trend of accessibility to the computers as compared to other technologies.

Choquet, Luengo and Yacef (2009) said that studies related to the resistance of the teachers in familiarizing themselves with using advanced computer technology, have revealed that proper training is required to help teachers use computer technology to teach subject matters and guide their students to learn with computer technology. According to Ellington, Percival and Race (1993), there are five barriers that inhibit teachers to use computer technology. These five barriers are (i) less expertise of the teachers in the use of Computer Technology as compared to their students, (ii) outdated equipments; replacement of outdated equipment (iv) lack of appropriate equipment and (v) overall reluctance of teachers to try something new.

A number of studies focused on pre-service and in-service teacher education and training programs to prepare teachers to use computer technology in the improvement of students' academic achievement. In these studies, Morrison and Lowther (1999) suggested a constructivist approach for the integration of computer technology in language learning practices. Rashid (2010) has suggested the project based learning for the integration of computer technology. Selvam (2009) has said that by integrating technology with constructivist methods, such as problem-based learning and project-based learning, learners are more responsible for their learning. Rather (2004) has also suggested that computer technology ought to be examined as a moral issue in which teachers understand both the positive and negative effects of technology.

Kulik and Bangert-Downs (1983-1984), Overton (1981) and Hayes (1987) found significant gains in student academic achievement resulting from CAI interventions in traditional methods of instruction. By using computer-based instructional system students

scored better on standardized achievement tests in selected content areas as compared to students who were without some form of digital intervention (Hayes, 1987). Some studies have explored that the effects of cooperative learning strategies coupled with computer use have produced great academic achievement (Susman, 1998). However, in a study conducted by Hecht, Roberts, and Schoon (1996), it was reported that students who used no computer technology gained higher academic achievement as compared to the students who used computer technology.

Lee (2010) reported that web-based technology enhanced learning outcomes of students. Skinner (1965) also said that the use of teaching machines as a way of providing immediate reinforcement promoted learning. Bi (2002) also reported that when ICT was used overall students' achievement in English, Mathematics and Science was improved.

Lin and Yang (2011) indicated that the use of computer positively affected the achievement level of second language learners. Leffa (1993) explained that learners using electronic dictionaries understood more (86.10 vs. 62.70%) than the users of paper dictionaries. Kumar (2009) remarked that weaker learners benefited more in terms of comprehension and vocabulary learning than the stronger ones.

This research primarily focused on analyzing the relationship between e-learning and students' academic achievement. The results derived from the meta-analysis reveal that use of associated information and communication technology for enhancing e-learning enhances students' educational academic achievement. The results therefore indicate that effective application in use of ICT tools to facilitate e-learning is an effective tool towards enhancing students' overall academic achievement in their learning.

Undoubtedly, the most important argument is that use of e-learning possess substantial positive impact on e-learning; and hence students' academic achievements.

Mothibi (2015) primarily focused on analyzing the relationship between e-learning and students' academic achievement. The results derived from the meta-analysis reveal that use of associated information and communication technology for enhancing e-learning enhances students' educational academic achievement. The results therefore indicate that effective application in use of ICT tools to facilitate e-learning is an effective tool towards enhancing students' overall academic achievement in their learning. Undoubtedly, the most important argument is that use of e-learning possess substantial positive impact on e-learning; and hence students' academic achievements.

Chauhan (2016) remarked that technology leads to effective learning of elementary students. First, technology is highly effective for learning general subjects and science, moderately effective for learning language, mathematics, and science and technology, while poorly effective for learning social studies. Second, the impact of technology on learning effectiveness of elementary students is high for long intervention duration of "> 6 months" as well as for small intervention duration of " \leq 1 week". Third, the informal setting in a learning environment leads to higher learning effectiveness for elementary students compared to formal settings. Fourth, the cross analysis of moderating variables suggests that learning oriented applications are highly effective in informal settings. Lastly, informal settings are more effective for long intervention duration, while formal settings are more effective for short intervention duration. These findings contribute to a

better understanding of the conditions that lead to high learning effectiveness of elementary students.

2.14 Assumptions about Study after Reviewing Literature

The review of related literature convinced the researcher to work out the following assumptions about availability, accessibility, adoption and usage of different innovative technologies especially computer technology in teaching learning practices of English language at secondary school level in Khyber Pakhtunkhwa and Punjab.

- 1) The NICT Strategy provided different aspects regarding the use of computer technology in the teaching learning practices especially regarding the English Language teaching learning activities at secondary school level.
- 2) The literature about the use of technology use in schools of Pakistan helped to comparatively analyze the current use of computer technology and other instructional technologies in the teaching learning practices at public sector schools in Pakistan.
- 3) The role of computer technology in teaching learning revealed advantages and disadvantages of the use of technology especially computer technology in pedagogy occurred all over the world.
- 4) The literature about the use of computer as an educational tool helped to understand its importance in present and future technologies like Video Recorded Lectures, Computer Assisted Instruction, Computer Managed Learning, Computer Assisted Language Learning, Teacher blogs, and Personal Digital Assistants etc.

- 5) The literature about computer technology use in pedagogy for globalization of education, integration of technology in education/curriculum, impact of computer technology on educational psychology and research related activities helped to analyze the future trends on computer technology in teaching learning practices and research related activities.
- 6) The curriculum of English for Grade-IX designed by Curriculum Wing Islamabad, Pakistan and the textbooks of English for Grade-IX prescribed in the light of Curriculum of English for Grade-IX supported to analyze the effectiveness of computer technology use in English Language learning at Secondary level in KP and Punjab.
- 7) The review of technology adoption related literature helped to use computer technology as a tool of English language learning in order to design English Language learning activities using computer software such as HTML4 (Hypertext Markup Language four), CSS (Cascading Style Sheets), Java Script, PHP (Hypertext Processor Language), and My SQL (Structured Query Language) etc., to suggest required measures to meet the future challenges of the use of computer technology as an educational tool in pedagogy.

Chapter 3

Research Methodology

This chapter describes the method/procedure used in the study for collection and analysis of data.

3.1 Population of the Study

The population of the study was comprised of all Grade-IX students studying English in academic year 2015-16 in Government High/Higher Secondary Schools and Government Girls High/Higher Secondary Schools established under the Department of Elementary and Secondary Education, Government of Khyber Pakhtunkhwa and the Department of Elementary and Secondary Education, Government of Punjab. There were 424566 Grade-IX students enrolled in Government High/Higher Secondary Schools of KP and Government Girls High/Higher Secondary Schools of KP. Whereas, the number of Grade-IX students enrolled in Government High/Higher Secondary Schools of Punjab and Government Girls High/Higher Secondary Schools of Punjab was 1287659. Among them 563 (five hundred and sixty-three) who were studying English in Grade-IX in Government High School No. 1, Nowshera Cant. (District Nowshera, KP), Government Girls Higher Secondary School Nowshera Cant. (District Nowshera, KP), Government Higher Secondary School Attock City (District Attock, Punjab) and Government Girls High School No. 2 Attock City, (District Attock, Punjab), were selected as accessible population of the study through Three-Stage Cluster Sampling Technique. In these schools there were large classes, spacious rooms, learners from families with low to medium socioeconomic educational background. Moreover, these schools had computer labs. The

inhabitants of both cities had same problems in English Language learning, for example they were taught English via grammar translation method, their teachers used Urdu as an instruction medium while teaching English, their classrooms were not equipped with computers, they had not learned English through CAI, They had not enjoyed individualized instruction for learning English at their current schools, they had not learned through self access learning at their current schools. Furthermore, District Nowshera (KP) and District Attock (Punjab) are adjacent cities of the two provinces of Pakistan. On the basis these factors, these districts were considered comparable districts of the two provinces of Pakistan. The detail of the students, studying English in these schools is as under in table 3.1.

Table 3.1: Size of the Accessible Population of the Study

| Region | District | Institution | 9 th Class Students | |
|-----------------------|----------|--|--------------------------------|-----------------|
| | | | Section | No. of Students |
| Khyber Pakhtunkhwa | Nowshera | Government High School No. 1 Nowshera Cant. | A | 32 |
| | | | B | 30 |
| | | | C | 30 |
| | | | D | 31 |
| | | | E | 31 |
| | | Government Girls Higher Secondary School Nowshera | A | 29 |
| | | | B | 30 |
| | | | C | 32 |

| | | | |
|--------|------------------------------|---|------------|
| | Cant. | D | 34 |
| | | E | 31 |
| | Subtotal 1 | | 310 |
| | Government Higher Secondary | A | 33 |
| | School Attock City | B | 32 |
| | | C | 32 |
| | | D | 32 |
| Punjab | Attock | | |
| | Government Girls High School | A | 32 |
| | No. 2 Attock City | B | 32 |
| | | C | 30 |
| | | D | 30 |
| | Subtotal 2 | | 253 |
| | Grand Total | | 563 |

3.2 Sample of the Study

The detail of the sample of the study is as under:

Three-Stage Cluster Sampling Technique was employed to select 128 Grade-IX students as a sample of the study. The description of Three-Stage Cluster Sampling Technique is as under:

Stage 1st: At this stage districts cluster i.e. one district from KP and one comparable district from Punjab were to select. So district Nowshera was selected through simple random sampling out of 26 districts of KP and district Attock was chosen as its comparable district out of 36 districts of Punjab.

Stage 2nd: At this stage schools cluster, two schools from district Nowshera and their two comparable schools from district Attock were selected. So at this stage, Government High School No. 1 Nowshera Cant. (District Nowshera, KP), Government Girls Higher Secondary School Nowshera Cant. (District Nowshera, KP) were selected through simple random sampling from all Government High/ Higher Secondary Schools of District Nowshera, KP. Whereas, Government Higher Secondary School Attock City (District Attock, Punjab) and Government Girls High School No. 2 Attock City, (District Attock, Punjab) were chosen as their comparable schools from District Attock (Punjab) on the basis of Grade-IX students' same mean scores (53%) in the subject of English in Middle Standard Examination 2015.

Stage 3rd: At this stage 128 (one hundred and twenty-eight) students of Grade-IX were selected from Government High School No. 1 Nowshera Cant. (District Nowshera, KP), Government Girls Higher Secondary School Nowshera Cant. (District Nowshera, KP), Government Higher Secondary School Attock City (District Attock, Punjab) and Government Girls High School No. 2 Attock City, (District Attock, Punjab) as a sample

of the study. For this purpose, pretest (Appendix-A) was administered to all 563 (five hundred and sixty-three) students of Grade-IX studying in the above mentioned schools. The marks obtained by them were arranged in descending order school wise. The students of equivalent pretest scores were identified. Each of them was randomly assigned to control group and experimental group. This process continued till each group got 16 (sixteen) students at each school as shown in Table 3.2. By doing so, each group got 16 students from each school. Thus the entire sample of the study was consisted of one hundred and twenty-eight (128) Grade-IX students studying in the above mentioned schools. At each school, the students who scored above the mean (58.41%) in pretest (Appendix-G) were declared as high achievers and those who scored below the mean in pretest were declared as low achievers. Table 3.2 shows the distribution of the sample in relation to regions.

Table 3.2: Size of the Sample of the Study

| Region | District | Institution | 9 th Class Students | |
|-----------------------|----------|---|--------------------------------|--------------------|
| | | | Control Group | Experimental Group |
| Khyber Pakhtunkhwa | Nowshera | Government High School No. 1, Nowshera Cant. | 16 | 16 |
| | | Government Girls Higher Secondary School Nowshera Cant. | 16 | 16 |
| Sub Total 1 | | | 32 | 32 |

| | | | | |
|--------|--------|---|-----------|------------|
| Punjab | Attock | Government Higher Secondary School Attock City | 16 | 16 |
| | | Government Girls High School No. 2 Attock City | 16 | 16 |
| | | Sub Total 2 | 32 | 32 |
| | | Grand Total | 64 | 64 |
| | | Total Students in Sample | | 128 |

3.3 Research Instruments

In order to measure the academic achievement of the sampled students in English language before and after experiment, pretest and posttest were designed.

3.3.1 The Pretest

The pretest was an achievement test composed of questions (i) filling in the blanks with listened words (ii) selecting the lettered word or phrase that is most nearly similar/opposite in meaning to the word in capital letter (iii) filling in the blanks with correct words (iv) discussing a topic (v) reading a paragraph and answering questions based on paragraph read (vi) translating a paragraph into Urdu (vii) writing summary of a poem (viii) writing an essay with the help of mind mapping. Moreover, the pretest was delimited to unit 1 (The Holy Prophet Hazrat Muhammad SAW) of the textbook of English for Grade-IX, published by Khyber Pakhtunkhwa Textbook Board Peshawar and unit 1 (The Saviour of Mankind i.e. The Holy Prophet Hazrat Muhammad SAW) of the textbook of English for Grade-IX, published by Punjab Textbook Board Lahore (Appendix-X). Furthermore, it was delimited to the first three levels of Bloom

Taxonomy's cognitive domain i.e. knowledge, comprehension and application because these three levels are mostly considered while preparing achievement test in Pakistan.

3.3.2. The Posttest

The researcher thoroughly studied unit 3 (Quaid – A Great Leader i.e. Quaid-e-Azam Muhammad Ali Jinnah), unit 14 (The Daffodils) of the textbook of English for Grade-IX, published by Khyber Pakhtunkhwa Textbook Board Peshawar and unit 5 (Daffodils), unit 6 (The Quaid's Vision and Pakistan i.e. Quaid-e-Azam Muhammad Ali Jinnah) of the textbook of English for Grade-IX, published by Punjab Textbook Board Lahore and also reviewed the techniques of test construction. He, in consultation with class teachers, constructed a posttest (Appendix-D) that was based on the students' learning outcomes/objectives mentioned in the National Curriculum for English, 2006, for Grade-IX. A comprehensive table of specifications (Appendix-U) for framing the posttest was developed. Cells in the two way chart of specification gave the detail of number of test items by content and instructional objectives. The criterion for instructional objectives was worked out by the researcher. This criterion was developed by classifying the objectives of English teaching as mentioned in the National Curriculum for English, 2006, for Grade-IX.

The posttest was to measure achievement in three levels of cognitive domain i.e. knowledge, comprehension, and application. Out of total hundred marks of achievement test, 10 marks were assigned to testing listening comprehension, 20 marks to vocabulary, 20 marks to oral communication skill, and 50 marks to writing skills. Posttest yielded for

each student the total score, three scores by levels of cognitive domain, and four scores for four content areas (Appendix-U).

The posttest (Appendix-D) was structured as follows: Section-I (Questions 1-10) elicited information about sampled students' listening comprehension; Section-II (Questions 11-30) examined vocabulary building of the sampled students; Section-III (Question 31) attempted to identify oral communication skills of sampled students; and Section-IV (Question 32-45) aimed at examining the writing skills of the sampled students. The posttest was reviewed by the Panel of English Language Teachers (Appendix-AB). The panel was constituted on the basis of the following considerations:

- Subject Specialist/Secondary School Teacher at any Government High/Higher Secondary School located in KP or Punjab
- Subject Specialist/ Secondary School Teacher who had at least 10-year English Language teaching experience at government level institutions
- Subject Specialist/ Secondary School Teacher who had at least 10-year working experience in test development at Boards of Intermediate and Secondary Education
- Subject Specialist/ Secondary School Teacher who had at least 10-year working experience in scoring papers at Boards of Intermediate and Secondary Education

The panel went through the questionnaire items and made suggestions for improving their quality and clarity of wording. Their observations and suggestions regarding posttest's content, language, and objectives mentioned in table of specifications

(Appendix-U) were accommodated before the actual launch of the posttest. By doing so, validation of the posttest was done. After incorporation of suggestions, the posttest was printed on single side of the paper.

3.3.2.1. Content Validity of the Posttest

All the items of the posttest were based on unit 3 (Quaid – A Great Leader i.e. Quaid-e-Azam Muhammad Ali Jinnah), unit 14 (The Daffodils) of the textbook of English for Grade-IX, published by Khyber Pakhtunkhwa Textbook Board Peshawar and unit 5 (Daffodils), unit 6 (The Quaid’s Vision and Pakistan i.e. Quaid-e-Azam Muhammad Ali Jinnah) of the textbook of English for Grade-IX, published by Punjab Textbook Board Lahore. Thus the content covered in the posttest was new subject matter that was taught during experiment. The posttest was developed keeping in view the students’ learning outcomes/objectives mentioned in the National Curriculum of English (2006) for Grade-IX. It was also developed according to the latest techniques of test construction and validated by the Panel of English Language Experts (Appendix-AC). Thus validity was ensured to what level it was possible.

3.3.2.2 Pilot Testing of the Posttest

After validation, the posttest was administered for pilot testing to 32 (thirty-two) Grade-IX students studying in the schools selected for the study (Appendix-AG). After marking the posttest, the suggestions regarding content and language of posttest were incorporated.

3.3.2.3 Reliability of the Posttest

The posttest score obtained through pilot testing from 32 (thirty-two) students studying in the schools selected for pilot testing (Appendix-AF), who had same characteristics like sampled students but were not included in the sample, was used to test the reliability of the posttest using split-half reliability (odd-even). The coefficient of reliability was determined through the use of Spearman-Brown equation for split-half reliability. The reliability of the posttest was 0.81.

The formula of Spearman-Brown equation is as follows:

$$r_{kk} = (2r_{12}) / (1+r_{12})$$

where r_{kk} is the reliability coefficient and r_{12} is the correlation between the participants' scores on the two halves of the test.

3.3.2.4. Material Used in Experiment

The materials used in this study were lesson plans (Appendix-Z and Appendix-AA) that were prepared on topics (Appendix-Y) as per the stages of Herbart's five steps system in preparation of lesson plan. Its detail is as under:

Step 1: Preparation/Introduction: At this step new material to be learned were interlinked to relevant past ideas or memories of the pupil in order to give the him a vital interest in the topic under consideration.

Step 2: Presentation: At this step new material were presented by means of concrete objects or actual experience.

Step 3: Association: At this step the comparison of new ideas with former ideas by compare and contrast were made in order to implant the new idea in mind of the pupil.

Step 4: Generalization: At this step the mind of the pupil was developed beyond the level of perception and the concrete object or actual experiences.

Step 5: Application: At this step the pupil used acquired knowledge not in a purely utilitarian way but also practically in order to clear its application side.

Step 6: Recapitulation: At this step a test were administered on students to ascertain whether they had understood or grasped the subject matter or not.

The medium of instruction used for teaching unit 3 (Quaid – A Great Leader i.e. Quaid-e-Azam Muhammad Ali Jinnah), unit 14 (The Daffodils) of the textbook of English for Grade-IX, published by Khyber Pakhtunkhwa Textbook Board Peshawar and unit 5 (Daffodils), unit 6 (The Quaid’s Vision and Pakistan i.e. Quaid-e-Azam Muhammad Ali Jinnah) of the textbook of English for Grade-IX, published by Punjab Textbook Board Lahore was a mixture of Urdu and English (i.e. using English more often as compared to Urdu) because the subject of English was taught in national language in all selected schools, instead of the fact, that the approved medium of instruction for teaching English was English that has been officially approved by the government of Pakistan at secondary/higher secondary school level.

The pretest posttest only design (one of the types of true experimental design) was selected for conducting the study. In order to get permission for the conduction of experiment, the researcher met the EDOs of Education of the concerned districts and Principals of the concerned schools (Appendix-AG) as well on Monday, September 13, 2015. Fortunately, they permitted the researcher and assured all types of possible help. On Wednesday, September 15, 2015 the Principals of the selected schools was requested

to provide a list of Grade-IX students. They were also requested for provision of required facilities in computer lab and classroom for experiment conduction.

After this, a self developed pretest in the subject of English was prepared with the consultation of Grade-IX English teachers. After validation of the pretest by the Panel of English Language Experts (Appendix-AC), it was administered to the sampled students (128) at their school separately. The pretest scores (Appendix-G and Appendix-J) were arranged in descending order at each school separately and thus the students were divided into two experimental groups and two control groups i.e. the odd numbered students were assigned to one group and the even numbered students to the other one via lottery. By so, each group got 32 (thirty-two) students (Appendix-G and Appendix-J).

The researcher got the consents of the nominated teacher and sampled students regarding their participation in the experiment before starting the experiment. After having the consents of the sample students, the researcher provided orientation program to control groups and experimental groups separately w.e.f. Thursday, October 1, 2015 to Saturday, October 3, 2015. Module (printed and computerized) (Appendix-AJ) and Lesson plans (printed and computerized) (Appendix-Z and Appendix-AA), were provided to the nominated teacher.

3.3.2.5 Detail of the Treatment and Experiment Conduction

The nominated teacher taught unit 3 (Quaid – A Great Leader i.e. Quaid-e-Azam Muhammad Ali Jinnah), unit 14 (The Daffodils) of the textbook of English for Grade-IX, published by Khyber Pakhtunkhwa Textbook Board Peshawar and unit 5 (Daffodils), unit 6 (The Quaid’s Vision and Pakistan i.e. Quaid-e-Azam Muhammad Ali Jinnah) of the textbook of English for Grade-IX, published by Punjab Textbook Board Lahore

(Appendix-Y) to control groups through printed lesson plans in their classrooms whereas the experimental groups were instructed via computerized lesson plans while learning these units in computer labs available at their schools. At Government High School No. 1 Nowshera Cant. (District Nowshera, KP), the experimental group was instructed by the nominated teacher during the first 20 minutes of 1st period of school timetable whereas the control group was taught during the last 20 minutes of 1st period of school timetable. Similarly, at Government Girls Higher Secondary School Nowshera Cant. (District Nowshera, KP) the experimental group was instructed during the first 20 minutes of 2nd period of school timetable while the control group was taught during the last 20 minutes of 2nd period of school timetable. Similarly, at Government Higher Secondary School Attock City (District Attock, Punjab), the experimental group was instructed during the first 20 minutes of the 5th period of school timetable while the control group was taught during the last 20 minutes of the 5th period of school timetable. Likewise, at Government Girls High School No. 2 Attock City, (District Attock, Punjab), the experimental group was instructed during the first 20 minutes of the 6th period of school timetable, whereas the control group was taught during the last 20 minutes of the 6th period of school timetable. The experiment lasted for twenty-four (24) days i.e. the experiment took place with effect from Monday, October 5, 2015 to Saturday, October 31, 2015.

3.3.2.6. Administration of the Posttest

The posttest (Appendix-D) was administered to all sampled students on Monday, November 2, 2015. The researcher was present to answer the queries that students had regarding questions of the posttest.

3.4. Data Collection

The data obtained through pretest and posttest were collected and tabulated via MS EXCEL 2010. As all the sampled students took the pretest and posttest and returned them. Thus the respondents' rate of return was 100%.

3.5 Data Analysis

The data was analyzed through means, variance, and percentage. Significance of the difference between the means of the groups was found by using t-test at .05 level of significance using Microsoft Excel 2010 (Appendix-T).

Chapter 4

Analysis and Discussion

This chapter deals with the analysis and interpretation of data obtained through pretest and posttest. Pretest scores were used to equate the groups. Significance of difference between the mean scores of control and experimental groups on pre-test, posttest were obtained by applying t-test.

4.1 Analysis

The analysis and the summary of the results are presented in the following tables.

Table 4.1: Descriptives of the Pre-test Scores of Control Group and

Experimental Group Students of KP

| Variable | Region | Group | No. of Students (n) | Mean (M) | Mean Difference (M.D) | S.D | SE _M | T | P |
|----------|--|--------------|---------------------|----------|-----------------------|---------|-----------------|------|--------|
| Pre-test | KP (GHS No. 1 Nowshera Cant., District Nowshera) | Control | 32 | 58.44 | | 13.4449 | | | |
| | | Experimental | 32 | 58.63 | 0.23 | 13.4446 | 3.34 | 0.27 | < 0.05 |

t-value at 0.05 = 2.02, degree of freedom (df) = 62

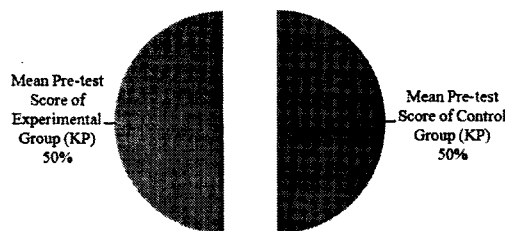


Fig. 4.1: Comparison of the Pretest Mean Scores of Control Group and Experimental Group Students of KP

In order to confirm that the difference between the pretest mean scores of control group and experimental group student of KP was insignificant, t-test at 0.05 level of significance was applied. As the calculated t-test value i.e. 0.27 is less than the tabulated t-test value i.e. 2.02 (Table 4.1), so the difference is insignificant. This indicates that the pretest mean scores of control group and experimental group students of KP were not significantly different. Moreover, the graph of pretest mean scores of control group and experimental group students of KP (Fig. 4.1) also shows that the scores are approximately equal. Furthermore, the raw pre-test scores of control group and experimental group students of KP (Appendix-G) also apparently represent that the pretest mean scores of the groups are approximately equal.

Table 4.2: Descriptives of the Posttest Scores of Control Group and Experimental Group Students of KP

| Variable | Region | Group | No. of Students (n) | Mean (M) | Mean Difference (M.D) | S.D | SE _M | t | ρ |
|----------|---|--------------|---------------------|----------|-----------------------|-------|-----------------|------|--------|
| Posttest | KP (G.H.S. No. 1 Nowshera Cant., District Nowshera) | Control | 32 | 63.22 | 12.97 | 13.38 | 3.34 | 3.88 | < 0.05 |
| | | Experimental | 32 | 76.19 | | 13.37 | | | |

t-value at 0.05 = 2.02, degree of freedom (df) = 62

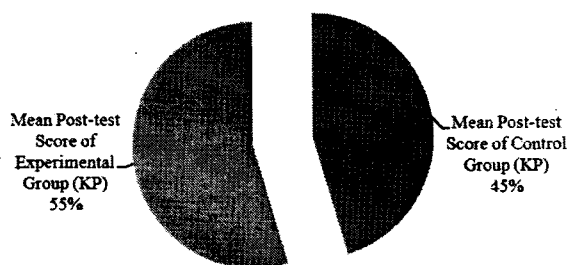


Fig. 4.2: Comparison of the Posttest Mean Scores of Control Group and Experimental Group Students of KP

In order to confirm that the difference between the posttest mean scores of control group and experimental group students of KP was significant, t-test at 0.05 level of significance was applied. As the calculated t-test value i.e. 3.88 is greater than the tabulated t-test value i.e. 2.02 (Table 4.2), so the difference is significant. This indicates that the posttest mean score of the control group students of KP was significantly different from the posttest mean score of the experimental group students of KP. Thus the null hypothesis (H_0) that there will be no significant difference in the posttest mean scores of the groups taught through GTM and GTMSCAI was rejected. Moreover, the graph of pretest mean scores of control group and experimental group students of KP

(Fig. 4.2) also shows that the scores are not equal. In addition, the raw pre-test scores of control group and experimental group students of KP (Appendix-G) also apparently represent that the mean scores of the groups are not equal.

Table 4.2.1: Detail of the Difference of the Posttest Mean Scores of Experimental Group and Control Group Students of KP

| Group | Posttest Sections and Scores | | | | | | | | | | |
|--|------------------------------|----------------------|----------------------|--|--|---|--|---|---|---|--|
| | Identifying Listened Words | Identifying Synonyms | Identifying Antonyms | Identifying Missing Words in Sentences | Discussion on a Topic Selected from the Given List | Writing answers of the questions Taken from Units of Textbook | Writing paraphrase of a stanza of the poem "Daffodils" | Reading a Passage of English and writing the answers of the given questions | Writing translation of a passage of English in Urdu | Writing Summary of the Poem "Daffodils" with the Help of a Flow Chart | Writing an essay on "Quaid-e-Azam – Our National Hero" with the help of Mind Map |
| Experimental Group Students of KP | 83% | 81% | 84% | 71% | 75% | 81% | 80% | 73% | 68% | 77% | 77% |
| Control Group Students of KP | 52% | 84% | 85% | 67% | 56% | 78% | 77% | 73% | 67% | 48% | 51% |
| Difference in Scores | 31% | -3% | -1% | 4% | 19% | 3% | 3% | -1% | 1% | 29% | 26% |

Interpretation of the posttest mean scores of experimental group students of KP is that they showed better performance by achieving thirty-one percent (31%) more posttest mean score on section I of the posttest i.e. they identified listened words more correctly, nineteen percent (19%) more posttest mean score on section III of the posttest i.e. they discussed the topic more accurately, twenty-nine percent (29%) more posttest mean score on section IV-E of the posttest i.e. they wrote the summary of the poem "Daffodils" with the help of flow chart in sufficient detail, and twenty-six percent (26%) more posttest

mean score on section IV-F of the posttest i.e. they wrote essay on “Quaid-e-Azam - Our National Hero” with the help of mind map more accurately as compared to control group students of KP (see Table 4.2.1).

In addition, the experimental group students of KP did not show better performance by achieving four percent (4%) more posttest mean score on section II-C of the posttest i.e. they identified missing words in sentences a little bit more correctly, three percent (3%) more posttest mean score on section IV-A of the posttest i.e. they wrote the answers of the questions a little bit more accurately, and one percent (1%) more posttest mean score on section IV-C of the posttest i.e. they wrote translation of a passage of English in Urdu a little bit more correctly as compared to control group students of KP. On the other hand, the control group students of KP also did not show better performance by achieving three percent (3%) more posttest mean score on section II-A of the posttest i.e. they identified synonyms a little bit more accurately, one percent (1%) more posttest mean score on section II-B of the posttest i.e. they identified antonyms a little bit more accurately and one percent (1%) more posttest mean score on section IV-C of the posttest i.e. they wrote the answers of the passage-based questions in a little bit more accuracy as compared to experimental group students of KP (see Table 4.2.1).

Moreover, it is also worth mentioning that during scoring the posttest, it was found that ninety percent (90%) of the control group students of KP wrote those answers that were written in their notebooks by their teacher. It means that very big portion of them focused on cramming and just copied the answers. On the other hand, eighty-three percent (83%) of the experimental group students of KP focused on understanding of

concepts and exercised their power of creative writing while attempting to solve different sections of the posttest. It means that major portion of them focused on concept making and thought out of the box while attempting posttest different sections.

Table 4.3: Descriptives of the Posttest Scores of High Achievers of Control Group and Experimental Group Students of KP

| Variable | Region | Group | No. of Students (n) | Mean (M) | Mean Difference (M.D) | S.D | SE _M | t | P |
|----------|---|-------------------------------|---------------------|----------|-----------------------|------|-----------------|------|--------|
| Posttest | KP (G.H.S. No. 1 Nowshera Cant., District Nowshera) | Control (High Achievers) | 16 | 74.25 | 13.56 | 8.54 | 5.43 | 2.57 | < 0.05 |
| | | Experimental (High Achievers) | 16 | 87.81 | | 5.18 | | | |

t-value at 0.05 = 2.02, degree of freedom (df) = 30

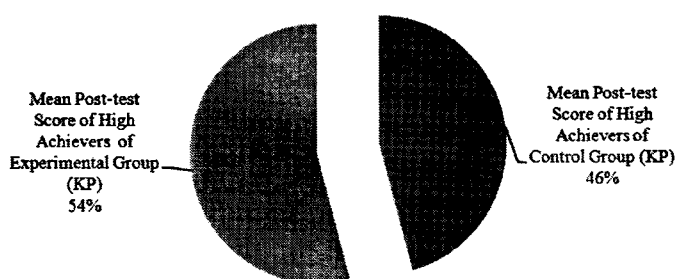


Fig. 4.3: Comparison of the Posttest Mean Scores of High Achievers of Control Group and Experimental Group Students of KP

In order to confirm that the difference between the posttest mean scores of the high achievers of the control group and experimental group students of KP was significant, t-test at 0.05 level of significance was applied. As the calculated t-test value i.e. 2.57 exceeds the tabulated t-test value i.e. 2.02 (Table 4.3), so the difference is significant. This indicates that posttest mean score of the high achievers of the control group students of KP was significantly different from the posttest mean score of the high achievers of the experimental group students of KP. Thus the null hypothesis (H_0) that there will be no significant difference in the posttest mean scores of the groups taught through GTM and GTMSCAI was rejected. Moreover, the graph of posttest mean scores

of high achievers of control group and experimental group students of KP (Fig. 4.3) also shows that the mean scores of the groups are not equal. In addition, the raw Posttest scores of the high achievers of experimental group and control group students of KP (Appendix-H) also apparently represent that the mean scores of the groups are not equal.

Table 4.3.1: Detail of the Difference of the Posttest Mean Scores of the High Achievers of the Experimental Group and Control Group Students of KP
Posttest Sections and Scores

| Group | Identifying Listened Words | Identifying Synonyms | Identifying Antonyms | Identifying Missing Words in Sentences | Discussion on a Topic Selected from the Given List | Writing answers of the questions Taken from Units of Textbook | Writing paraphrase of a stanza of the poem "Daffodils" | Reading a Passage of English and writing the answers of the given questions | Writing translation of a passage of English in Urdu | Writing Summary of the Poem "Daffodils" with the Help of a Flow Chart | Writing an essay on "Quaid-e-Azam – Our National Hero" with the help of Mind Map |
|--|-----------------------------------|-----------------------------|-----------------------------|---|---|--|---|--|--|--|---|
| HA of Experimental Group Students of KP | 93% | 93% | 93% | 83% | 88% | 91% | 90% | 84% | 80% | 89% | 88% |
| HA of Control Group Students of KP | 63% | 93% | 89% | 74% | 67% | 85% | 88% | 87% | 80% | 63% | 63% |
| Difference in Scores | 30% | 0% | 4% | 9% | 21% | 6% | 3% | -3% | 0% | 26% | 25% |

Interpretation of the posttest mean scores of high achievers of the experimental group students of KP is that they showed better performance by achieving thirty percent (30%) more posttest mean score on section I of the posttest i.e. they identified listened words more correctly, twenty-one (21%) more posttest mean score on section III of the posttest i.e. they discussed the topic more accurately, twenty-six (26%) more posttest mean score on section IV-E of the posttest i.e. they wrote the summary of the poem "Daffodils" with the help of flow chart in sufficient detail, and twenty-five (25%) more posttest mean score on section IV-F of the posttest i.e. they wrote essay on "Quaid-e-

Azam - Our National Hero” with the help of mind map more accurately as compared to high achievers of the control group students of KP (Table 4.3.1).

In addition, neither the high achievers of the experimental group students of KP nor the high achievers of the control group students of KP showed significantly better performance as compare to each other on the other sections of the posttest (Table 4.3.1). Moreover, it is also worth mentioning that during scoring the posttest, it was found that ninety-two percent (92%) of the high achievers of the control group students of KP wrote those answers that were written in their notebooks by their teacher. It means that majority of them focused on cramming and just copied the answers. On the other hand, eighty-seven percent (87%) of the high achievers of the experimental group students of KP focused on understanding of concepts and exercised their power of creative writing while attempting to solve different sections of the posttest. It means that majority of them focused on understanding the topics and thought out of the box while attempting posttest sections.

Table 4.4: Descriptives of the Posttest Scores of Low Achievers of Control Group and Experimental Group Students of KP

| Variable | Region | Group | No. of Students (n) | Mean (M) | Mean Difference (M.D) | S.D | SE _M | t | P |
|----------|---|------------------------------|---------------------|----------|-----------------------|------|-----------------|------|--------|
| Posttest | KP (G.H.S. No. 1 Nowshera Cant., District Nowshera) | Control (Low Achievers) | 16 | 52.19 | 12.37 | 6.15 | 2.4 | 5.16 | < 0.05 |
| | | Experimental (Low Achievers) | 16 | 64.56 | | 7.36 | | | |

t-value at 0.05 = 2.02, degree of freedom (df) = 30

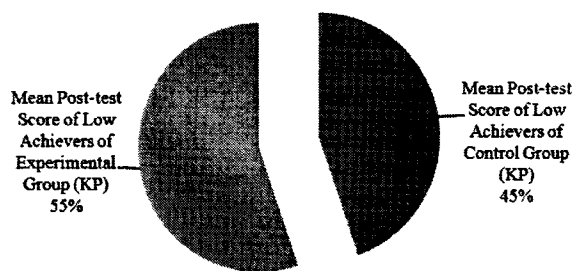


Fig. 4.4: Comparison of the Posttest Mean Scores of Low Achievers of Control Group and Experimental Group Students of KP

In order to confirm that the difference between the posttest mean scores of the low achievers of the control group and experimental group students of KP was significant, t-test at 0.05 level of significance was applied. As the calculated t-test value i.e. 5.16 is greater than the tabulated t-test value i.e. 2.02 (Table 4.3), so the difference significant. This indicates that posttest mean score of the low achievers of the control group students of KP was significantly different from the posttest mean score of the low achievers of the experimental group students of KP. Thus the null hypothesis (H_0) that there will be no significant difference in the posttest mean scores of the groups taught through GTM and GTMSCAI was rejected. Moreover, the graph of posttest mean scores of low achievers of control group and experimental group students of KP (Fig. 4.4) also shows that the mean scores of the groups are not equal. In addition, the raw posttest scores of the low

achievers of experimental group and control group students of KP (Appendix-I) also apparently represent that the mean scores of the groups are not equal.

Table 4.4.1: Detail of the Difference of the Posttest Mean Scores of the Low Achievers of the Experimental Group and Control Group Students of KP
Posttest Sections and Scores

| Group | Identifying Listened Words | Identifying Synonyms | Identifying Antonyms | Identifying Missing Words in Sentences | Discussion on a Topic Selected from the Given List | Writing answers of the questions Taken from Units of Textbook | Writing paraphrase of a stanza of the poem "Daffodils" | Reading a Passage of English and writing the answers of the given questions | Writing translation of a passage of English in Urdu | Writing Summary of the Poem "Daffodils" with the Help of a Flow Chart | Writing an essay on "Quaid-e-Azam – Our National Hero" with the help of Mind Map |
|--|----------------------------|----------------------|----------------------|--|--|---|--|---|---|---|--|
| LA of Experimental Group Students of KP | 73% | 69% | 76% | 59% | 62% | 71% | 70% | 61% | 56% | 66% | 66% |
| LA of Control Group Students of KP | 41% | 75% | 81% | 59% | 44% | 71% | 66% | 60% | 54% | 34% | 39% |
| Difference in Scores | 32% | -6% | -5% | 0% | 17% | 0% | 4% | 1% | 2% | 32% | 26% |

Interpretation of the posttest mean scores of low achievers of the experimental group students of KP is that they showed better performance by achieving thirty-two percent (32%) more posttest mean score on section I of the posttest i.e. they identified listened words more correctly, seventeen percent (17%) more posttest mean score on section III of the posttest i.e. they discussed the topic more accurately, thirty-two percent (32%) more posttest mean score on section IV-E of the posttest i.e. they wrote the

summary of the poem “Daffodils” with the help of flow chart in sufficient detail, and twenty-six percent (26%) more posttest mean score on section IV-F of the posttest i.e. they wrote essay on “Quaid-e-Azam - Our National Hero” with the help of mind map more accurately as compared to low achievers of the control group students of KP (Table 4.4.1).

In addition, neither the low achievers of the experimental group students of KP nor the low achievers of the control group students of KP showed significantly better performance as compare to each other on the other sections of the posttest (Table 4.4.1). Moreover, it is also worth mentioning that during scoring the posttest, it was found that ninety-six percent (96%) of the low achievers of the control group students of KP wrote those answers that were written in their notebooks by their teacher. It means that majority of them focused on cramming and just copied the answers. On the other hand, fifty-three percent (53%) of the low achievers of the experimental group students of KP focused on understanding of concepts and exercised their power of creative writing while attempting to solve different sections of the posttest. It means that majority of them focused on understanding the topics and thought out of the box while attempting posttest sections.

Table 4.5: Descriptives of the Pre-test and Posttest Scores of Control Group Students of KP

| Variable | Region | Group | No. of Students (n) | Mean (M) | Mean Difference (M.D) | S.D. | SE _M | t | P |
|----------|---|---------|---------------------|----------|-----------------------|-------|-----------------|------|--------|
| Pre-test | KP (G.H.S. No. 1 Nowshera Cant., District Nowshera) | Control | 32 | 58.41 | | 13.44 | | | |
| Posttest | | | 32 | 63.22 | 4.81 | 13.39 | 3.35 | 1.44 | < 0.05 |

t-value at 0.05 = 2.02, degree of freedom (df) = 62

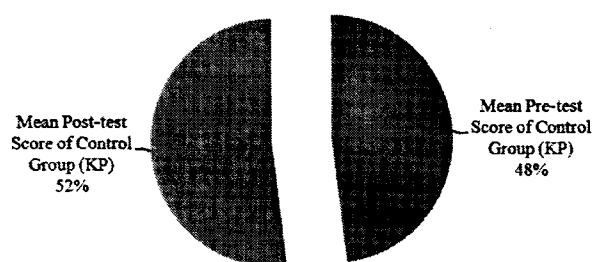


Fig. 4.5: Comparison of the Pretest mean and Posttest mean Scores of Control Group Students of KP

In order to confirm that the difference between the posttest mean and pre-test scores of control group students of KP was significant, t-test at 0.05 level of significance was applied. As the calculated t-test value i.e. 1.44 is less than the tabulated t-test value i.e. 2.02 (Table 4.5), so the difference is insignificant. This indicates that the posttest mean and pre-test scores of the control group students of KP were not significantly different. Moreover, the graph of the posttest mean and pre-test scores of control group students of KP (Fig. 4.5) also shows that the scores are approximately equal. In addition,

the raw posttest and pre-test scores of control group students of KP (Appendix-G) also apparently represent that the mean scores of the groups are approximately equal.

Interpretation of the pretest mean and posttest scores of the control group students of KP is that they did show significantly better performance on sections of the posttest as compare to scores they got on sections of pre-test. Moreover, it is also worth mentioning that during scoring the posttest, it was found that approximately ninety-three percent (93%) of the of the control group students of KP wrote those answers that were written in their notebooks while attempting pre-test and posttest sections.

Table 4.6: Descriptives of the Pre-test and Posttest Scores of Experimental Group Students of KP

| Variable | Region | Group | No. of Students (n) | Mean (M) | Mean Difference (M.D) | S.D | SE _M | t | P |
|----------|---|--------------|---------------------|----------|-----------------------|-------|-----------------|------|--------|
| Pre-test | KP (G.H.S. No. 1 Nowshera Cant., District Nowshera) | Experimental | 32 | 58.63 | 17.56 | 13.44 | 3.35 | 5.24 | < 0.05 |
| Posttest | | | 32 | 76.19 | | 13.37 | | | |

t-value at 0.05 = 2.02, degree of freedom (df) = 62

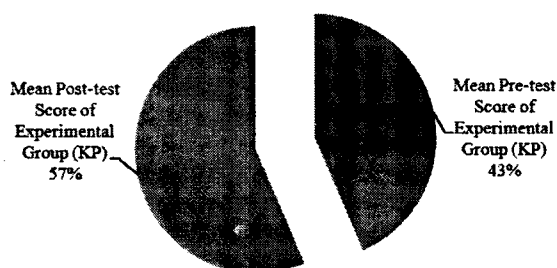


Fig. 4.6: Comparison of the Pretest Mean and Posttest Mean Scores of Experimental Group Students of KP

In order to confirm that the difference between the posttest mean and pre-test scores of experimental group students of KP was significant, t-test at 0.05 level of significance was applied. As the calculated t-test value i.e. 5.24 is greater than the tabulated t-test value i.e. 2.02 (Table 4.5), so the difference is significant. This indicates that the posttest mean and pre-test scores of the experimental group students of KP were significantly different. Thus the null hypothesis (H_0) that there will be no significant difference in the pretest and posttest mean scores of the groups taught through GTMSCAI was rejected. Moreover, the graph of the posttest mean and pre-test scores of

experimental group students of KP (Fig. 4.6) also shows that the scores are not equal. In addition, the raw posttest and pre-test scores of experimental group students of KP (Appendix-G) also apparently represent that the mean scores of the groups are different.

Interpretation of the pretest mean and posttest scores of the experimental group students of KP is that the experimental group students showed significantly better performance on sections of the posttest as compare to scores they got on sections of pre-test. Moreover, it is also worth mentioning that during scoring the posttest, it was found that approximately seventy-nine percent (79%) of the of the experimental group students of KP wrote innovative answers that depicted that they have developed their comprehension and creativity during learning English via GTMSCAI.

Table 4.7: Descriptives of the Pre-test Scores of the Control Group and Experimental Group Students of Punjab

| Variable | Region | Group | No. of Students (n) | Mean (M) | Mean Difference (M.D) | S.D | SE _M | t | P |
|----------|--|--------------|---------------------|----------|-----------------------|-------|-----------------|------|--------|
| Pre-test | Punjab (G.H.S.S. Attock City, District Attock) | Control | 32 | 58.66 | 0.03 | 13.27 | 3.32 | 0.01 | < 0.05 |
| | | Experimental | 32 | 58.63 | | 13.27 | | | |

t-value at 0.05 = 2.02, degree of freedom (df) = 62

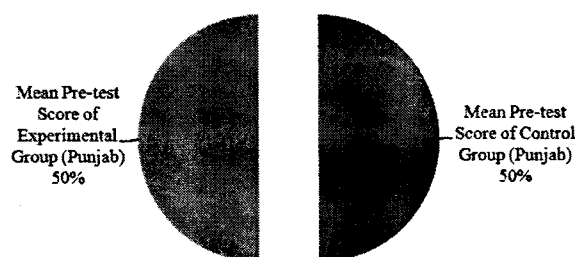


Fig. 4.7: Comparison of the Pretest Mean Scores of the Control Group and Experimental Group Students of Punjab

In order to confirm that the difference between the pretest mean scores of control group and experimental group students of Punjab was significant at 0.05 level of significance was applied. As the calculated t-test value i.e. 0.01 is less than the tabulated t-test value i.e. 2.02 (Table 4.7), so the difference is insignificant. This indicates that the pretest mean score of control group of Punjab was not significantly different from the pretest mean score of experimental group students of Punjab. Moreover, the graph of pretest mean scores of control group and experimental group students of Punjab (Fig. 4.7) also shows that the scores are equal. Furthermore, the raw scores of pre-test of control

group and experimental group students of Punjab (Appendix-J) also apparently represent that the mean scores of the groups are approximately equal.

Table 4.8: Descriptives of the Posttest Scores of Control Group and Experimental Group Students of Punjab

| Variable | Region | Group | No. of Students (n) | Mean (M) | Mean Difference (M.D) | S.D | SE _M | t | P |
|----------|--|--------------|---------------------|----------|-----------------------|-------|-----------------|------|--------|
| Posttest | Punjab (G.H.S.S. Attock City, District Attock) | Control | 32 | 62.44 | 13.65 | 13.18 | 3.2 | 4.27 | < 0.05 |
| | | Experimental | 32 | 76.09 | | 12.42 | | | |

t-value at 0.05 = 2.02, degree of freedom (df) = 62

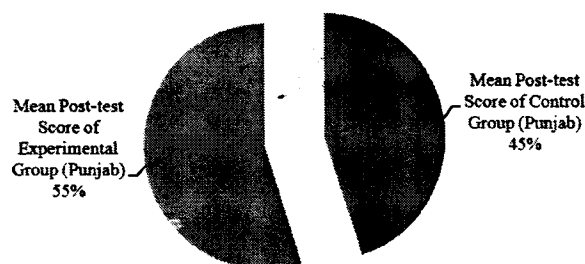


Fig. 4.8: Comparison of the Posttest Mean Scores of Control Group and Experimental Group Students of Punjab

In order to confirm that the difference between the posttest mean scores of control group and experimental group students of Punjab was significant, t-test at 0.05 level of significance was applied. As the calculated t-test value i.e. 4.27 is greater than the tabulated t-test value i.e. 2.02 (Table 4.8), so the difference is significant. This indicates that the posttest mean score of the control group students of Punjab was significantly different from the posttest mean score of the experimental group students of Punjab. Thus the null hypothesis (H_0) that there will be no significant difference in the posttest mean scores of the groups taught through GTM and GTMSCAI was rejected. Moreover, the

graph of pretest mean scores of control group and experimental group students of Punjab (Fig. 4.8) also shows that the scores are not equal. In addition, the raw pre-test scores of control group and experimental group students of Punjab (Appendix-J) also apparently represent that the mean scores of the groups are not equal.

Table 4.8.1: Detail of the Difference of the Posttest Mean Scores of Experimental Group and Control Group Students of Punjab Posttest Sections and Scores

| Group | Identifying Listened Words | Identifying Synonyms | Identifying Antonyms | Identifying Missing Words in Sentences | Discussion on a Topic Selected from the Given List. | Writing answers of the questions Taken from Units of Textbook | Writing paraphrase of a stanza of the poem "Daffodils" | Reading a Passage of English and writing the answers of the given questions | Writing translation of a passage of English in Urdu | Writing Summary of the Poem "Daffodils" with the Help of a Flow Chart | Writing an essay on "Quaid-e-Azam – Our National Hero" with the help of Mind Map |
|--|-----------------------------------|-----------------------------|-----------------------------|---|--|--|---|--|--|--|---|
| Experimental Group Students of Punjab | 83% | 83% | 88% | 68% | 72% | 84% | 89% | 71% | 68% | 74% | 81% |
| Control Group Students of Punjab | 48% | 84% | 88% | 68% | 52% | 84% | 89% | 70% | 67% | 48% | 47% |
| Difference in Scores | 35% | -2% | 0% | -1% | 20% | 1% | 0% | 1% | 1% | 26% | 34% |

Interpretation of the posttest mean scores of experimental group students of Punjab is that they showed better performance by achieving thirty-five percent (35%) more posttest mean score on section I of the posttest i.e. they identified listened words more correctly, twenty percent (20%) more posttest mean score on section III of the posttest i.e. they discussed the topic more accurately, twenty-six percent (26%) more posttest mean score on section IV-E of the posttest i.e. they wrote the summary of the poem "Daffodils" with the help of flow chart in sufficient detail, and thirty-four percent (34%) more posttest mean score on section IV-F of the posttest i.e. they wrote essay on

“Quaid-e-Azam - Our National Hero” with the help of mind map more accurately as compared to control group students of Punjab (Table 4.8.1).

In addition, the experimental group students of Punjab did not show significantly better performance by achieving one percent (1%) more posttest mean score on section IV-A of the posttest i.e. they wrote the answers of the questions a little bit more accurately, and one percent (1%) more posttest mean score on section IV-C of the posttest i.e. they wrote translation of a passage of English in Urdu a little bit more correctly as compared to control group students of Punjab. On the other hand, the control group students of Punjab also did not show significantly better performance by achieving two percent (2%) more posttest mean score on section II-A of the posttest i.e. they identified synonyms a little bit more accurately, one percent (1%) more posttest mean score on section II-C of the posttest i.e. they identified missing words in sentences a little bit more correctly, zero percent (0%) more posttest mean score on section II-B of the posttest i.e. they identified antonyms a little bit more accurately and one percent (1%) more posttest mean score on section IV-C of the posttest i.e. they wrote the answers of the passage-based questions in a little bit more accuracy as compared to experimental group students of Punjab (Table 4.8.1).

Moreover, it is also worth mentioning that during scoring the posttest, it was found that ninety-two percent (92%) of the control group students of Punjab wrote those answers that were written in their notebooks by their teacher. It means that very big portion of them focused on cramming and just copied the answers. On the other hand, eighty-nine percent (89%) of the experimental group students of Punjab focused on

understanding of concepts and exercised their power of creative writing while attempting to solve different sections of the posttest. It means that major portion of them focused on concept making and thought out of the box while attempting posttest different sections.

Table 4.9: Descriptives of the Posttest Scores of High Achievers of Control Group and Experimental Group Students of Punjab

| Variable | Region | Group | No. of Students (n) | Mean (M) | Mean Difference (M.D) | S.D | SE _M | t | P |
|----------|--|-------------------------------|---------------------|----------|-----------------------|------|-----------------|------|--------|
| Posttest | Punjab (G.H.S.S. Attock City, District Attock) | Control (High Achievers) | 16 | 73.25 | 13.31 | 9.01 | 2.81 | 4.74 | < 0.05 |
| | | Experimental (High Achievers) | 16 | 86.56 | | 6.69 | | | |

t-value at 0.05 = 2.02, degree of freedom (df) = 30

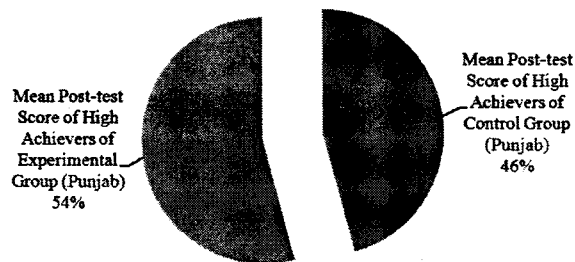


Fig. 4.9: Comparison of the Posttest Mean Scores of High Achievers of Control Group and Experimental Group Students of Punjab

In order to confirm that the difference between the posttest mean scores of the high achievers of the control group and experimental group students of Punjab was significant, t-test at 0.05 level of significance was applied. As the calculated t-test value i.e. 4.74 exceeds the tabulated t-test value i.e. 2.02 (Table 4.9), so the difference is significant. This indicates that posttest mean score of the high achievers of the control group students of Punjab was significantly different from the posttest mean score of the high achievers of the experimental group students of Punjab. Thus the null hypothesis (H_0) that there will be no significant difference in the posttest mean scores of the groups

taught through GTM and GTMSCAI was rejected. Moreover, the graph of posttest mean scores of high achievers of control group and experimental group students of Punjab (Fig. 4.9) also shows that the mean scores of the groups are not equal. In addition, the raw Posttest scores of the high achievers of experimental group and control group students of Punjab (Appendix-K) also apparently represent that the mean scores of the groups are not equal.

Table 4.9.1: Detail of the Difference of the Posttest Mean Scores of the High Achievers of the Experimental Group and Control Group Students of KP

| Group | Posttest Sections and Scores | | | | | | | | | | |
|--|------------------------------|----------------------|----------------------|--|--|---|--|---|---|---|--|
| | Identifying Listened Words | Identifying Synonyms | Identifying Antonyms | Identifying Missing Words in Sentences | Discussion on a Topic Selected from the Given List | Writing answers of the questions Taken from Units of Textbook | Writing paraphrase of a stanza of the poem "Daffodils" | Reading a Passage of English and writing the answers of the given questions | Writing translation of a passage of English in Urdu | Writing Summary of the Poem "Daffodils" with the Help of a Flow Chart | Writing an essay on "Quaid-e-Azam – Our National Hero" with the help of Mind Map |
| HA of Experimental Group Students of Punjab | 91% | 90% | 95% | 81% | 85% | 91% | 93% | 83% | 83% | 84% | 89% |
| HA of Control Group Students of Punjab | 58% | 94% | 90% | 79% | 66% | 90% | 90% | 83% | 82% | 61% | 57% |
| Difference in Scores | 33% | -4% | 5% | 3% | 20% | 1% | 3% | 0% | 1% | 23% | 33% |

Interpretation of the posttest mean scores of high achievers of the experimental group students of Punjab is that they showed better performance by achieving thirty-three percent (33%) more posttest mean score on section I of the posttest i.e. they identified listened words more correctly, twenty percent (20%) more posttest mean score on section III of the posttest i.e. they discussed the topic more accurately, twenty-three percent

(23%) more posttest mean score on section IV-E of the posttest i.e. they wrote the summary of the poem “Daffodils” with the help of flow chart in sufficient detail, and thirty-three percent (33%) more posttest mean score on section IV-F of the posttest i.e. they wrote essay on “Quaid-e-Azam - Our National Hero” with the help of mind map more accurately as compared to high achievers of the control group students of Punjab (Table 4.9.1).

In addition, neither the high achievers of the experimental group students of Punjab nor the high achievers of the control group students of Punjab showed significantly better performance as compare to each other on the other sections of the posttest (Table 4.9.1). Moreover, it is also worth mentioning that during scoring the posttest, it was found that ninety-four percent (94%) of the high achievers of the control group students of Punjab wrote those answers that were written in their notebooks by their teacher. It means that majority of them focused on cramming and just copied the answers. On the other hand, ninety-eight percent (98%) of the high achievers of the experimental group students of Punjab focused on understanding of concepts and exercised their power of creative writing while attempting to solve different sections of the posttest. It means that majority of them focused on understanding the topics and thought out of the box while attempting posttest sections.

Table 4.10: Descriptives of the Posttest Scores of Low Achievers of Control Group and Experimental Group Students of Punjab

| Variable | Region | Group | No. of Students (n) | Mean (M) | Mean Difference (M.D) | S.D | SE _M | t | ρ |
|----------|--|------------------------------|---------------------|----------|-----------------------|------|-----------------|-----|--------|
| Pre-test | Punjab (G.H.S.S. Attock City, District Attock) | Control (Low Achievers) | 16 | 51.63 | 14 | 5.30 | 2.06 | 6.8 | < 0.05 |
| | | Experimental (Low Achievers) | 16 | 65.63 | | 6.33 | | | |

t-value at 0.05 = 2.02, degree of freedom (df) = 30

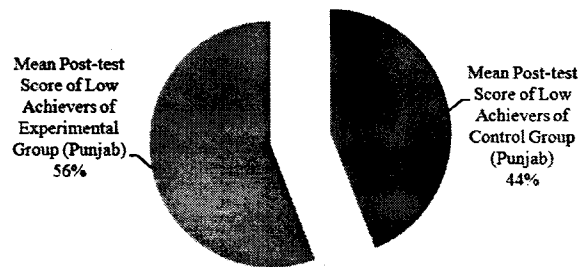


Fig. 4.10: Comparison of the Posttest Mean Scores of Low Achievers of Control Group and Experimental Group Students of Punjab

In order to confirm that the difference between the posttest mean scores of the low achievers of the control group and experimental group students of Punjab was significant, t-test at 0.05 level of significance was applied. As the calculated t-test value i.e. 6.8 is greater than the tabulated t-test value i.e. 2.02 (Table 4.10), so the difference significant. This indicates that posttest mean score of the low achievers of the control group students of Punjab was significantly different from the posttest mean score of the low achievers of the experimental group students of Punjab. Thus the null hypothesis (H_0) that there will be no significant difference in the posttest mean scores of the groups taught through GTM

and GTMSCAI was rejected. Moreover, the graph of posttest mean scores of low achievers of control group and experimental group students of Punjab (Fig. 4.10) also shows that the mean scores of the groups are not equal. In addition, the raw posttest scores of the high achievers of experimental group and control group students of Punjab (Appendix-K) also apparently represent that the mean scores of the groups are not equal.

Table 4.10.1: Detail of the Difference of the Posttest Mean Scores of the Low Achievers of the Experimental Group and Control Group Students of Punjab Posttest Sections and Scores

| Group | Identifying Listened Words | Identifying Synonyms | Identifying Antonyms | Identifying Missing Words in Sentences | Discussion on a Topic Selected from the Given List | Writing answers of the questions Taken from Units of Textbook | Writing paraphrase of a stanza of the poem "Daffodils" | Reading a Passage of English and writing the answers of the given questions | Writing translation of a passage of English in Urdu | Writing Summary of the Poem "Daffodils" with the Help of a Flow Chart | Writing an essay on "Quaid-e-Azam – Our National Hero" with the help of Mind Map |
|--|-----------------------------------|-----------------------------|-----------------------------|---|---|--|---|--|--|--|---|
| LA of Experimental Group Students of Punjab | 76% | 75% | 80% | 54% | 59% | 78% | 85% | 59% | 53% | 65% | 73% |
| LA of Control Group Students of Punjab | 39% | 75% | 85% | 58% | 38% | 78% | 88% | 57% | 52% | 35% | 37% |
| Difference in Scores | 37% | 0% | -5% | -4% | 21% | 0% | -3% | 3% | 1% | 30% | 36% |

Interpretation of the posttest mean scores of low achievers of the experimental group students of Punjab is that they showed better performance by achieving thirty-three percent (37%) more posttest mean score on section I of the posttest i.e. they identified listened words more correctly, twenty percent (21%) more posttest mean score on section III of the posttest i.e. they discussed the topic more accurately, twenty-three (30%) more posttest mean score on section IV-E of the posttest i.e. they wrote the summary of the poem "Daffodils" with the help of flow chart in sufficient detail, and thirty-three (36%) more posttest mean score on section IV-F of the posttest i.e. they wrote essay on "Quaid-

e-Azam - Our National Hero” with the help of mind map more accurately as compared to low achievers of the control group students of Punjab (Table 4.10.1).

In addition, neither the low achievers of the experimental group students of Punjab nor the low achievers of the control group students of Punjab showed significantly better performance as compare to each other on the other sections of the posttest (Table 4.10.1). Moreover, it is also worth mentioning that during scoring the posttest, it was found that ninety-seven percent (97%) of the low achievers of the control group students of Punjab wrote those answers that were written in their notebooks by their teacher. It means that majority of them focused on cramming and just copied the answers. On the other hand, sixty-seven percent (67%) of the low achievers of the experimental group students of Punjab focused on understanding of concepts and exercised their power of creative writing while attempting to solve different sections of the posttest. It means that majority of them focused on understanding the topics and thought out of the box while attempting posttest sections.

Table 4.11: Descriptives of the Pre-test and Posttest Scores of Control Group Students of Punjab

| Variable | Region | Group | No. of Students (n) | Mean (M) | Mean Difference (M.D) | S.D | SE _M | t | ρ |
|----------|--|---------|---------------------|----------|-----------------------|-------|-----------------|------|--------|
| Pre-test | Punjab (G.H.S.S. Attock City, District Attock) | Control | 32 | 58.67 | 3.77 | 13.27 | 3.31 | 1.14 | < 0.05 |
| Posttest | | | 32 | 62.44 | | 13.18 | | | |

t-value at 0.05 = 2.02, degree of freedom (df) = 62

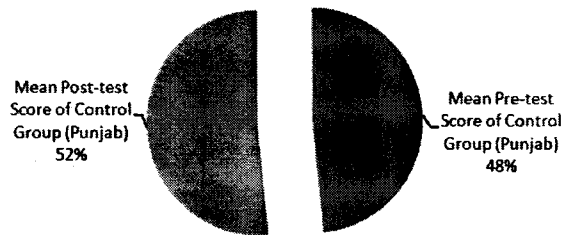


Fig. 4.11: Comparison of the Pretest Mean and Posttest Mean Scores of Control Group Students of Punjab

In order to confirm that the difference between the posttest mean and pre-test scores of control group students of Punjab was significant, t-test at 0.05 level of significance was applied. As the calculated t-test value i.e. 1.14 is less than the tabulated t-test value i.e. 2.02 (Table 4.11), so the difference is insignificant. This indicates that the posttest mean and pre-test scores of the control group students of Punjab were not significantly different. Moreover, the graph of the posttest mean and pre-test scores of control group students of Punjab (Fig. 4.11) also shows that the scores are approximately equal. In addition, the raw posttest and pre-test scores of control group students of Punjab

(Appendix-J) also apparently represent that the mean scores of the groups are approximately equal.

Interpretation of the pretest mean and posttest mean scores of the control group students of Punjab is that they did show significantly better scores on sections of the posttest as compare to the scores they got on sections of pre-test. Moreover, it is also worth mentioning that during scoring the posttest, it was found that approximately ninety-five percent (95%) of the of the control group students of Punjab wrote those answers that were written in their notebooks while attempting pre-test and posttest sections.

Table 4.12: Descriptives of the Pre-test and Posttest Scores of Experimental Group Students of Punjab

| Variable | Region | Group | No. of Students (n) | Mean (M) | Mean Difference (M.D) | S.D | SE _M | t | P |
|----------|--|--------------|---------------------|----------|-----------------------|-------|-----------------|------|--------|
| Pre-test | Punjab (G.H.S.S. Attock City, District Attock) | Experimental | 32 | 58.63 | 17.46 | 13.27 | 3.21 | 5.44 | < 0.05 |
| Posttest | | | 32 | 76.09 | | 12.42 | | | |

t-value at 0.05 = 2.02, degree of freedom (df) = 62

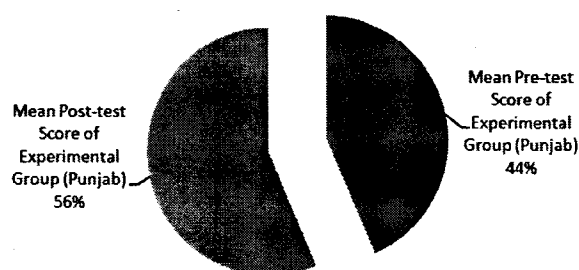


Fig. 4.12: Comparison of the Pretest Mean and Posttest Mean Scores of Experimental Group Students of Punjab

In order to confirm that the difference between the posttest mean and pre-test scores of experimental group students of Punjab was significant, t-test at 0.05 level of significance was applied. As the calculated t-test value i.e. 3.21 is greater than the tabulated t-test value i.e. 2.02 (Table 4.12), so the difference is significant. This indicates that the posttest mean and pre-test scores of the experimental group students of Punjab were significantly different. Thus the null hypothesis (H_0) that there will be no significant difference in the pretest and posttest mean scores of the groups taught through GTMSCAI was rejected. Moreover, the graph of the posttest mean and pre-test scores of

experimental group students of Punjab (Fig. 4.12) also shows that the scores are not equal. In addition, the raw posttest and pre-test scores of experimental group students of Punjab (Appendix-J) also apparently represent that the mean scores of the groups are different.

Interpretation of the pretest mean and posttest mean scores of the experimental group students of Punjab is that the experimental group students showed significantly better performance on sections of the posttest as compare to scores they got on sections of pre-test. Moreover, it is also worth mentioning that during scoring the posttest, it was found that approximately eighty-five percent (85%) of the of the experimental group students of Punjab wrote innovative answers that depicted that they have developed their comprehension and creativity during learning English via GTMSCAI.

Table 4.13: Descriptives of the Pre-test Scores of Control Group Students of KP and Punjab

| Variable | Region | Group | No. of Students (n) | Mean (M) | Mean Difference (M.D) | S.D | SE _M | t | ρ |
|----------|---|---------|---------------------|----------|-----------------------|-------|-----------------|------|--------|
| Pre-test | KP (G.H.S. No. 1 Nowshera Cant., District Nowshera) | Control | 32 | 58.41 | | 13.44 | | | |
| | Punjab (G.H.S.S. Attock City, District Attock) | Control | 32 | 58.66 | 0.25 | 13.27 | 3.34 | 0.07 | < 0.05 |

t-value at 0.05 = 2.02, degree of freedom (df) = 62

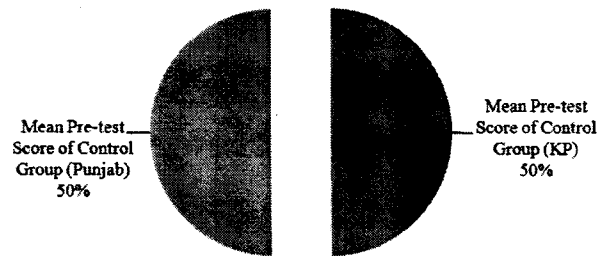


Fig. 4.13: Comparison of the Pretest Mean Scores of Control Group Students of KP and Punjab

In order to confirm that the difference between the pretest mean scores of control group students of KP and Punjab was significant, t-test at 0.05 level of significance was applied. As the calculated t-test value i.e. 0.07 is less than the tabulated t-test value i.e. 2.02 (Table 4.13), so the difference is insignificant. This indicates that the pretest mean scores of control group students of KP and Punjab were not significantly different. Moreover, the graph of pretest mean scores of control group students of KP and Punjab

(Fig. 4.13) also shows that the scores are approximately equal. Furthermore, the raw scores of pre-test of control group students of KP and Punjab (Appendix-M) also apparently represent that the mean scores of the groups are approximately equal.

Table 4.14: Descriptives of the Posttest Scores of Control Group Students of KP and Punjab

| Variable | Region | Group | No. of Students (n) | Mean (M) | Mean Difference (M.D) | S.D | SE _M | t | ρ |
|----------|--|---------|---------------------|----------|-----------------------|-------|-----------------|------|--------|
| Posttest | G.H.S. No. 1 Nowshera Cant., District Nowshera, KP | Control | 32 | 63.22 | | 13.38 | | | |
| | G.H.S.S. Attock City, District Attock, Punjab | Control | 32 | 62.44 | 1.22 | 13.18 | 3.32 | 0.24 | < 0.05 |

t-value at 0.05 = 2.02, degree of freedom (df) = 62

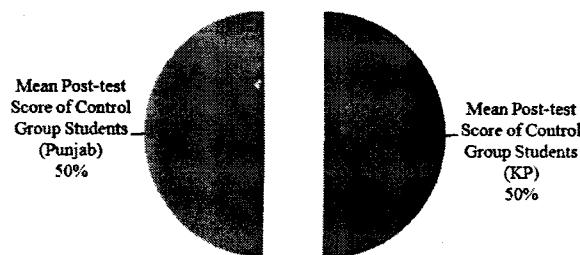


Fig. 4.14: Comparison of the Posttest Mean Scores of Control Group Students of KP and Punjab

In order to confirm that the difference between the posttest mean scores of control group students of KP and Punjab was significant, t-test at 0.05 level of significance was applied. As the calculated t-test value i.e. 0.24 is less than the tabulated t-test value i.e. 2.02 (Table 4.14), so the difference is insignificant. This indicates that the posttest mean scores of control group students of KP and Punjab were not significantly different. Moreover, the graph of posttest mean scores of control of KP and Punjab (Fig. 4.14) also shows that the scores are approximately equal. Furthermore, the raw scores of posttest of control group students of KP and Punjab (Appendix-M) also apparently represent that the mean scores of the groups are approximately equal.

Interpretation of the posttest mean scores of the control group students of KP and Punjab is that neither control group students of KP nor control group students of Punjab showed significantly better scores on sections of the posttest as compare to each other. Moreover, it is also worth mentioning that during scoring the posttest, it was found that approximately ninety percent (90%) of the of the control group students of KP and ninety-three percent (93) of the control group students of Punjab wrote those answers that were written in their notebooks while attempting posttest sections.

Table 4.15: Descriptives of the Posttest Scores of High Achievers of Control Group Students of KP and Punjab

| Variable | Region | Group | No. of Students (n) | Mean (M) | Mean Difference (M.D) | S.D | SE _M | t | ρ |
|----------|---|--------------------------|---------------------|----------|-----------------------|------|-----------------|------|--------|
| Posttest | KP (G.H.S. No. 1 Nowshera Cant., District Nowshera) | Control (High Achievers) | 32 | 74.25 | | 8.54 | | | |
| | Punjab (G.H.S.S. Attock City, District Attock) | Control (High Achievers) | 32 | 73.25 | 1.00 | 9.01 | 3.1 | 0.32 | < 0.05 |

t-value at 0.05 = 2.02, degree of freedom (df) = 62

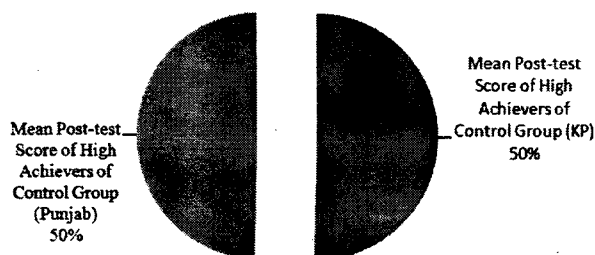


Fig. 4.15: Comparison of the Posttest Mean Score of High Achievers of Control Group Students of KP and Punjab

In order to confirm that the difference between the posttest mean scores of high achievers of control group students of KP and Punjab was significant, t-test at 0.05 level of significance was applied. As the calculated t-test value i.e. 0.32 is less than the tabulated t-test value i.e. 2.02 (Table 4.15), so the difference is insignificant. This indicates that the posttest mean scores of high achievers of control group students of KP and Punjab were not significantly different. Moreover, the graph of posttest mean scores of high achievers of control of KP and Punjab (Fig. 4.15) also shows that the scores are approximately equal. Furthermore, the raw scores of posttest of high achievers of control

group students of KP and Punjab (Appendix-N) also apparently represent that the mean scores of the groups are approximately equal.

Interpretation of the posttest mean scores of the high achievers of the control group students of KP and Punjab is that neither high achievers of the control group students of KP nor the high achievers of the control group students of Punjab showed significantly better scores on sections of the posttest as compare to each other. Moreover, it is also worth mentioning that during scoring the posttest, it was found that approximately ninety-four percent (94%) of the high achievers of the control group students of KP and ninety-seven percent (97) of the high achievers of the control group students of Punjab wrote those answers that were written in their notebooks while attempting posttest sections.

Table 4.16: Descriptives of the Posttest Scores of Low Achievers of Control Group Students of KP and Punjab

| Variable | Region | Group | No. of Students (n) | Mean (M) | Mean Difference (M.D) | S.D | SE _M | t | ρ |
|----------|---|-------------------------|---------------------|----------|-----------------------|------|-----------------|------|--------|
| Posttest | KP (G.H.S. No. 1 Nowshera Cant., District Nowshera) | Control (Low Achievers) | 32 | 52.19 | | 6.15 | | | |
| | Punjab (G.H.S.S. Attock City, District Attock) | Control (Low Achievers) | 32 | 51.63 | 0.56 | 5.30 | 2.03 | 0.28 | < 0.05 |

t-value at 0.05 = 2.02, degree of freedom (df) = 62

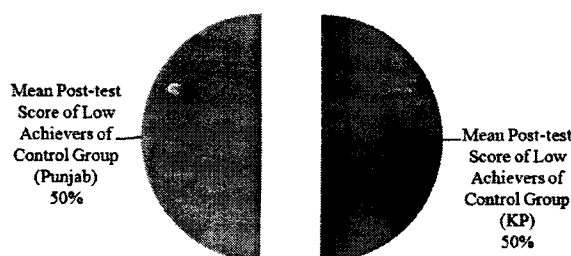


Fig. 4.16: Comparison of the Posttest Mean Scores of Low Achievers of Control Group Students of KP and Punjab

In order to confirm that the difference between the posttest mean scores of low achievers of control group students of KP and Punjab was significant, t-test at 0.05 level of significance was applied. As the calculated t-test value i.e. 0.28 is less than the tabulated t-test value i.e. 2.02 (Table 4.16), so the difference is insignificant. This indicates that the posttest mean scores of low achievers of control group students of KP and Punjab were not significantly different. Moreover, the graph of posttest mean scores of low achievers of control groups of KP and Punjab (Fig. 4.16) also shows that the scores are approximately equal. Furthermore, the raw scores of posttest of low achievers

of control group students of KP and Punjab (Appendix-O) also apparently represent that the mean scores of the groups are approximately equal.

Interpretation of the posttest mean scores of the low achievers of the control group students of KP and Punjab is that neither low achievers of the control group students of KP nor the low achievers of the control group students of Punjab showed significantly better scores on sections of the posttest as compare to each other. Moreover, it is also worth mentioning that during scoring the posttest, it was found that approximately ninety-three percent (93%) of the low achievers of the control group students of KP and ninety-eight percent (98) of the low achievers of the control group students of Punjab wrote those answers that were written in their notebooks while attempting posttest sections.

Table 4.17: Descriptives of the Pre-test Scores of Experimental Group Students of KP and Punjab

| Variable | Region | Group | No. of Students (n) | Mean (M) | Mean Difference (M.D) | S.D | SE _M | t | ρ |
|----------|---|--|---------------------|----------|-----------------------|-------|-----------------|------|--------|
| Pre-test | KP (G.H.S. No. 1 Nowshera Cant., District Nowshera) | Experimental | 32 | 58.63 | | 13.44 | | | |
| | | Punjab (G.H.S.S. Attock City, District Attock) | 32 | 58.62 | 0.01 | 13.27 | 3.34 | 0.01 | < 0.05 |

t-value at 0.05 = 2.02, degree of freedom (df) = 62

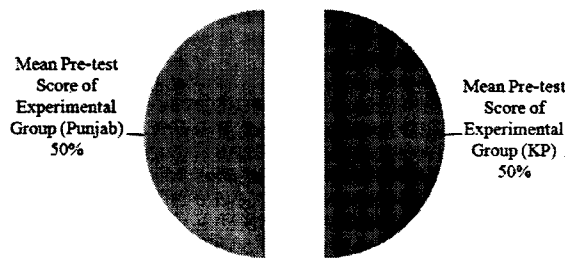


Fig. 4.17: Comparison of the Pretest Mean Scores of Experimental Group Students of KP and Punjab

In order to confirm that the difference between the pretest mean scores of experimental group students of KP and Punjab was significant, t-test at 0.05 level of significance was applied. As the calculated t-test value i.e. 0.01 is less than the tabulated t-test value i.e. 2.02 (Table 4.17), so the difference is insignificant. This indicates that the pretest mean scores of experimental group students of KP and Punjab were not

significantly different. Moreover, the graph of pretest mean scores of experimental group students of KP and Punjab (Fig. 4.17) also shows that the scores are approximately equal. Furthermore, the raw scores of pre-test of experimental group students of KP and Punjab (Appendix-M) also apparently represent that the mean scores of the groups are approximately equal.

Table 4.18: Descriptives of the Posttest Scores of Experimental Group Students of KP and Punjab

| Variable | Region | Group | No. of Students (n) | Mean (M) | Mean Difference (M.D) | S.D | SE _M | t | ρ |
|----------|---|--------------|---------------------|----------|-----------------------|-------|-----------------|------|--------|
| Posttest | KP (G.H.S. No. 1 Nowshera Cant., District Nowshera) | Experimental | 32 | 76.19 | 0.09 | 13.37 | 3.23 | 0.03 | < 0.05 |
| | Punjab (G.H.S.S. Attock City, District Attock) | Experimental | 32 | 76.09 | | 12.42 | | | |

t-value at 0.05 = 2.02, degree of freedom (df) = 62

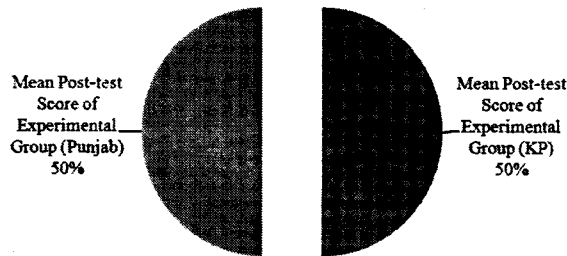


Fig. 4.18: Comparison of the Posttest Mean Scores of Experimental Group Students of KP and Punjab

In order to confirm that the difference between the Posttest Mean scores of experimental group students of KP and Punjab was significant, t-test at 0.05 level of significance was applied. As the calculated t-test value i.e. 0.03 is less than the tabulated t-test value i.e. 2.02 (Table 4.18), so the difference is insignificant. This indicates that the Posttest Mean scores of experimental group students of KP and Punjab were not significantly different. Thus the null hypothesis (H_0) that there will be no significant

difference in the posttest mean scores of the groups taught through GTMSCAI was accepted. Moreover, the graph of Posttest Mean scores of experimental group students of KP and Punjab (Fig. 4.18) also shows that the scores are approximately equal. Furthermore, the raw scores of posttest of experimental group students of KP and Punjab (Appendix-M) also apparently represent that the mean scores of the groups are approximately equal.

Table 4.18.1: Detail of the Difference of the Posttest Mean Scores of the Experimental Group Students of Punjab and KP

| Group | Posttest Sections and Scores | | | | | | | | | | |
|--|------------------------------|----------------------|----------------------|--|--|---|--|---|---|---|--|
| | Identifying Listened Words | Identifying Synonyms | Identifying Antonyms | Identifying Missing Words in Sentences | Discussion on a Topic Selected from the Given List | Writing answers of the questions Taken from Units of Textbook | Writing paraphrase of a stanza of the poem "Daffodils" | Reading a Passage of English and writing the answers of the given questions | Writing translation of a passage of English in Urdu | Writing Summary of the Poem "Daffodils" with the Help of a Flow Chart | Writing an essay on "Quaid-e-Azam – Our National Hero" with the help of Mind Map |
| Experimental Group Students of Punjab | 83% | 83% | 88% | 68% | 72% | 84% | 89% | 71% | 68% | 74% | 81% |
| Experimental Group Students of KP | 83% | 81% | 84% | 71% | 75% | 81% | 80% | 73% | 68% | 77% | 77% |
| Difference in Scores | 1% | 2% | 3% | -3% | -3% | 3% | 9% | -2% | 0% | -3% | 4% |

Interpretation of the posttest scores of experimental group students of KP and Punjab is that neither the experimental group students of KP nor the experimental group students of Punjab showed significantly better performance against each other on any section of the posttest (Table 4.18.1). Moreover, it is also worth mentioning that during scoring the posttest, it was found that eighty-three percent (83%) of the experimental group students of KP and eighty-nine percent (89%) of the experimental group students

of Punjab focused on understanding of concepts and exercised their power of creative writing while attempting to solve different sections of the posttest.

Table 4.19: Descriptives of the Posttest Scores of High Achievers of Experimental Group Students of KP and Punjab

| Variable | Region | Group | No. of Students (n) | Mean (M) | Mean Difference (M.D) | S.D | SE _M | t | ρ |
|----------|---|-------------------------------|---------------------|----------|-----------------------|------|-----------------|-----|--------|
| Posttest | KP (G.H.S. No. 1 Nowshera Cant., District Nowshera) | Experimental (High Achievers) | 16 | 87.81 | | 5.18 | | | |
| | Punjab (G.H.S.S. Attock City, District Attock) | Experimental (High Achievers) | 16 | 86.56 | 1.25 | 6.69 | 2.12 | 0.6 | < 0.05 |

t-value at 0.05 = 2.02, degree of freedom (df) = 30

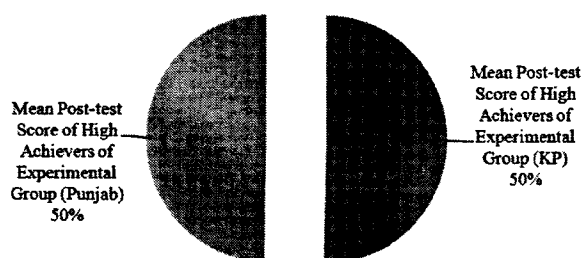


Fig. 4.19: Comparison of the Posttest Mean Scores of High Achievers of Experimental Group Students of KP and Punjab

In order to confirm that the difference between the posttest mean scores high achievers of experimental group students of KP and Punjab was significant, t-test at 0.05 level of significance was applied. As the calculated t-test value i.e. 0.60 is less than the tabulated t-test value i.e. 2.02 (Table 4.19), so the difference is insignificant. This indicates that the posttest mean scores high achievers of experimental group students of KP and Punjab were not significantly different. Thus the null hypothesis (H_0) that there will be no significant difference in the posttest mean scores of the groups taught through GTMSCAI was accepted. Moreover, the graph of posttest mean scores of high achievers of experimental group students of KP and Punjab (Fig. 4.19) also shows that the scores

are approximately equal. Furthermore, the raw scores of posttest of experimental group students of KP and Punjab (Appendix-P) also apparently represent that the mean scores of the groups are approximately equal.

Table 4.19.1: Detail of the Difference of the Posttest Mean Scores of the High Achievers of the Experimental Group Students of Punjab and KP

| | | Posttest Sections and Scores | | | | | | | | | | |
|--|--|-------------------------------------|----------------------|----------------------|--|--|---|--|---|---|---|--|
| Group | | Identifying Listened Words | Identifying Synonyms | Identifying Antonyms | Identifying Missing Words in Sentences | Discussion on a Topic Selected from the Given List | Writing answers of the questions Taken from Units of Textbook | Writing paraphrase of a stanza of the poem "Daffodils" | Reading a Passage of English and writing the answers of the given questions | Writing translation of a passage of English in Urdu | Writing Summary of the Poem "Daffodils" with the Help of a Flow Chart | Writing an essay on "Quaid-e-Azam – Our National Hero" with the help of Mind Map |
| HA of Experimental Group Students of Punjab | | 91% | 90% | 95% | 81% | 85% | 91% | 93% | 83% | 83% | 84% | 89% |
| HA of Experimental Group Students of KP | | 93% | 93% | 93% | 83% | 88% | 91% | 90% | 84% | 80% | 89% | 88% |
| Difference in Scores | | -1% | -3% | 3% | -2% | -3% | 0% | 3% | -1% | 3% | -5% | 1% |

Interpretation of the posttest scores the high achievers the of experimental group students of KP and Punjab is that neither the high achievers of the experimental group students of KP nor the high achievers of the experimental group students of Punjab showed significantly better performance against each other on any section of the posttest (Table 4.19.1). Moreover, it is also worth mentioning that during scoring the posttest, it was found that eighty-seven percent (87%) of the high achievers of the experimental

group students of KP and ninety-eight percent (98%) of high achievers of the experimental group students of Punjab focused on understanding of concepts and exercised their power of creative writing while attempting to solve different sections of the posttest.

Table 4.20: Descriptives of the Posttest Scores of Low Achievers of Experimental Group Students of KP and Punjab

| Variable | Region | Group | No. of Students (n) | Mean (M) | Mean Difference (M.D) | S.D | SE _M | t | ρ |
|----------|---|------------------------------|---------------------|----------|-----------------------|------|-----------------|------|--------|
| Posttest | KP (G.H.S. No. 1 Nowshera Cant., District Nowshera) | Experimental (Low Achievers) | 16 | 64.56 | 1.06 | 7.36 | 2.43 | 0.44 | < 0.05 |
| | Punjab (G.H.S.S. Attock City, District Attock) | Experimental (Low Achievers) | 16 | 65.63 | | 6.33 | | | |

t-value at 0.05 = 2.02, degree of freedom (df) = 30

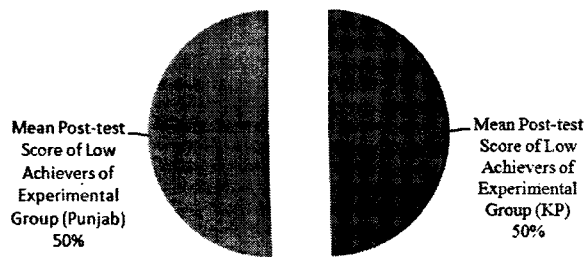


Fig. 4.20: Comparison of the Posttest Mean Scores of Low Achievers of Experimental Group Students of KP and Punjab

In order to confirm that the difference between the posttest mean scores low achievers of experimental group students of KP and Punjab was significant, t-test at 0.05 level of significance was applied. As the calculated t-test value i.e. 0.20 is less than the tabulated t-test value i.e. 2.02 (Table 4.20), so the difference is insignificant. This indicates that the posttest mean scores low achievers of experimental group students of KP and Punjab were not significantly different. Thus the null hypothesis (H_0) that there will be no significant difference in the posttest mean scores of the groups taught through GTMSCAI was accepted. Moreover, the graph of posttest mean scores of low achievers of experimental group students of KP and Punjab (Fig. 4.20) also shows that the scores

are approximately equal. Furthermore, the raw scores of posttest of experimental group students of KP and Punjab (Appendix-P) also apparently represent that the mean scores of the groups are approximately equal.

Table 4.20.1: Detail of the Difference of the Posttest Mean Scores of the Low Achievers of the Experimental Group Students of Punjab and KP
Posttest Sections and Scores

| Group | Identifying Listened Words | Identifying Synonyms | Identifying Antonyms | Identifying Missing Words in Sentences | Discussion on a Topic Selected from the Given List | Writing answers of the questions Taken from Units of Textbook | Writing paraphrase of a stanza of the poem "Daffodils" | Reading a Passage of English and writing the answers of the given questions | Writing translation of a passage of English in Urdu | Writing Summary of the Poem "Daffodils" with the Help of a Flow Chart | Writing an essay on "Quaid-e-Azam – Our National Hero" with the help of Mind Map |
|--|-----------------------------------|-----------------------------|-----------------------------|---|---|--|---|--|--|--|---|
| LA of Experimental Group Students of Punjab | 76% | 75% | 80% | 54% | 59% | 78% | 85% | 59% | 53% | 65% | 73% |
| LA of Experimental Group Students of KP | 73% | 69% | 76% | 59% | 62% | 71% | 70% | 61% | 56% | 66% | 66% |
| Difference in Scores | 3% | 6% | 4% | -4% | -3% | 6% | 15% | -2% | -3% | -1% | 7% |

Interpretation of the posttest scores the low achievers the of experimental group students of KP and Punjab is that neither the low achievers of the experimental group students of KP nor the low achievers of the experimental group students of Punjab showed significantly better performance against each other on any section of the posttest (Table 4.20.1). Moreover, it is also worth mentioning that during scoring the posttest, it was found that fifty-three percent (53%) of the low achievers of the experimental group students of KP and sixty-seven percent (67%) of low achievers of the experimental group

students of Punjab focused on understanding of concepts and exercised their power of creative writing while attempting to solve different sections of the posttest.

4.2 Discussion

As this study aimed at doing comparative analysis of the effectiveness of computer technology in students' academic achievement in English language at secondary school level in KP and Punjab, so the academic achievement of the students of KP and Punjab who were instructed through GTMSCAI was comparatively analyzed. In fact, the students studying in Government High/Higher Secondary Schools established under The Department of Elementary and Secondary Education, Government of Punjab have access to computer technology for English Language learning purposes since long but the students studying in Government High/Higher Secondary Schools established under The Department of Elementary and Secondary Education, Government of KP do not have such access due to financial constraints. However, recently the Department of Elementary and Secondary Education, Government of KP has also started to provide such facilities to students studying English in Government High/Higher Secondary Schools established under The Department of Elementary and Secondary Education, Government of KP. To contribute his share in such activities, the researcher opted to conduct a study aiming at doing comparative analysis of the effectiveness of computer technology in students' academic achievement in English Language at secondary school level in Khyber Pakhtunkhwa and Punjab.

There were two control groups and two experimental groups. During the experiment the control group students were taught through GTM (the conventional method) and the experimental group students were taught through GTMSCAI. In this

study GTMSCAI was found to be more effective than GTM as the experimental group students showed superior achievement in the subject of English.

The result of the present study matched particularly with Hayes (1987) who said that by using computer-based instructional system students scored better on standardized achievement tests in selected content areas as compared to students who were without some form of digital intervention. Blake (2008) explained that when ICT was used overall students' achievement in English, Mathematics and Science was improved. Rank, Warren and Milum (2011) said that teacher-talk-tech survey found that 81% teachers believed that classroom computer availability and accessibility increased students' academic performance. Levy (2009) has mentioned that the use of computer positively affected the achievement level of second language learners. Lee (2010) told that technology-enhanced learning enhanced students' learning outcomes. Conroy (2010) and Wang (2011) said that ICT had potential benefits for students' L2 proficiency. Baytak, Tarman, and Ayas (2011) found that learners who used computer technology in language learning showed better result as compared to those who did not use it for English language learning. Mahmood (2012) mentioned that software enabled their users to increase the quality of learning. Peregoy and Boyle (2012) stated that the use of technological tools enhanced learners' reading and writing skills. Moreover, they said that learners learned more effectively when they used technological tools while using traditional teaching methods. However, the results of the present study did not support Hecht, Roberts, and Schoon (1996) who mentioned that students who did not use

computer technology gained higher academic achievement as compared to the students who used computer technology.

As no experimental study in languages teaching can be perfect and flawless, this study, when looked into critically, contained possible flaws. While designing the present study, in order to control the extraneous teacher variable, it was thought convenient to provide treatment to the experimental groups and control group students by nominated teacher and the supervisor himself supervise him. This step might have influenced the results of the study due to the unconscious bias of the researcher against GTM (the traditional method). If experimental and control group students had been taught by two separate teachers (one from KP and one from Punjab) who were equally experts to apply GTM and GTMSCAI, the results of the study would have perhaps been more accurate and reliable. But to find such teachers who were equally competent in teaching the subject of English through these methods was very difficult, if not impossible. Moreover, training of the two traditional teachers in the use of two new methods was also not feasible. Even if such teachers could be obtained for experimentation, another possible factor influencing the study results could not have been ruled out i.e. the element of novelty and newness. As we know, whenever a new method or technique is adopted, it influences the students positively leading to better achievement. The GTMSCAI was new for the students; therefore, improved performance was visible among the students of experimental group students as compared to the control group students. Newness of the method of instruction and newness of teacher might have positively influenced the results.

In Pakistani classrooms, computer application for English language learning is not very common so it was a different experience for the experimental group students who learned via GTMSCAI which was new for them. The novelty of method made them more attentive, as a result their level of achievement has been superior to control group. As during the instruction through GTM and GTMSCAI, the nominated teacher used different types of material like videos, models, pictures, charts, dictionaries and also the text book. The students performed different activities during the time of experiment, especially when they were taught through GTMSCAI. This might have influenced their understanding due to learning by doing, thus improving their academic achievement.

GTM is highly objectionable for teaching an important subject like English. Keeping in view its importance, it is necessary to teach the subject with greater zeal and devotion by using modern methods and models of teaching like communicative method, inductive inquiry model etc. In the present study, though GTMSCAI was found superior to GTM in developing listening skill as experimental group students identified listened words more correctly, speaking skill as they discussed the topic more accurately, writing skill as they wrote the summary of the poem and essay more accurately as compared to control group students, however, GTM improved reading skill of students just like GTMSCAI, except that GTMSCAI was more effective in promoting comprehension and creative writing.

The Low Achievers of the Experimental Group Students of Punjab achieved 37% (the first highest difference) greater posttest mean score on posttest item i.e. 'Identifying Listened Words' than Low Achievers of the Control Group Students of Punjab. Similarly,

the Experimental Group Students of Punjab achieved 35% (the second highest difference) greater posttest mean score on posttest item i.e. 'Identifying Listened Words' than Control Group Students of Punjab. Likewise, the High Achievers of the Experimental Group Students of Punjab achieved 33% (the third highest difference) greater posttest mean score on posttest item i.e. 'Identifying Listened Words' than High Achievers of the Control Group Students of Punjab.

The Low Achievers of the Experimental Group Students of Punjab achieved 36% (the first highest difference) greater posttest mean score on posttest item i.e. 'Writing an essay on Quaid-e-Azam – Our National Hero with the help of Mind Map' than Low Achievers of the Control Group Students of Punjab. Similarly, the Experimental Group Students of Punjab achieved 34% (the second highest difference) greater posttest mean score on posttest item i.e. 'Writing an essay on Quaid-e-Azam – Our National Hero with the help of Mind Map' than Control Group Students of Punjab. Likewise, the High Achievers of the Experimental Group Students of Punjab achieved 33% (the third highest difference) greater posttest mean score on posttest item i.e. 'Writing an essay on Quaid-e-Azam – Our National Hero with the help of Mind Map' than High Achievers of the Control Group Students of Punjab.

The Low Achievers of the Experimental Group Students of KP achieved 32% (the first highest difference) greater posttest mean score on posttest item i.e. 'Writing Summary of the Poem "Daffodils" with the Help of a Flow Chart' than Low Achievers of the Control Group Students of KP. Similarly, the Low Achievers of the Experimental Group Students of Punjab achieved 30% (the second highest difference) greater posttest

mean score on posttest item i.e. 'Writing Summary of the Poem "Daffodils" with the Help of a Flow Chart' than Control Group Students of Punjab. Likewise, the Experimental Group Students of KP achieved 29% (the third highest difference) greater posttest mean score on posttest item i.e. 'Writing Summary of the Poem "Daffodils" with the Help of a Flow Chart' than the Control Group Students of KP.

The Low Achievers of the Experimental Group Students of Punjab achieved 21% (the first highest difference) greater posttest mean score on posttest item i.e. 'Discussion on a Topic Selected from the Given List' than Low Achievers of the Control Group Students of Punjab. Similarly, the High Achievers of the Experimental Group Students of Punjab achieved 20% (the second highest difference) greater posttest mean score on posttest item i.e. 'Discussion on a Topic Selected from the Given List' than Control Group Students of Punjab. Likewise, the Experimental Group Students of KP achieved 19% (the third highest difference) greater posttest mean score on posttest item i.e. 'Discussion on a Topic Selected from the Given List' than the Control Group Students of KP.

The experimental group students of Punjab especially the low achievers of them got more benefits of using GTMSCAI in promoting their academic achievement in English language as compared to low achievers of the experimental group students of KP and low achievers of the control group students of Punjab.

During the study period the researcher observed that there was an increasing trend among the students and teachers in the use of internet connected computer for English language learning purposes. Also, he observed that the number of teachers and students

who intended to use desktop/laptop computers for 3-5 hours daily was increased. This is also mentioned by Hill and Flynn (2006) who said that over the last 5 years there has been a marked increase in the number of classrooms/schools that have regular access to computers and the internet. However, the young teachers were getting familiarized with the ICT more speedily as compared to elder teachers. The same was the case among the administrators. Also, it was observed that as the facilities of computer laboratory and internet connection increased the use of ICT for English language learning purposes also increased. The researcher also observed that the benefits of proper utilization of internet connected computer increased the use of ICT for English learning among students, teachers and administrators.

Moreover, majority of the students, teachers, administrators etc. got the training through their fellow students, teachers, or/and administrators. Also, the administrators facilitated students and teachers in using internet connected computer for teaching/learning English. Thus, computer and internet were becoming popular tools of learning in public sector schools. Most of the students had little knowledge about the use of computer and internet for English language learning purposes. However, internet connection at teacher/student/administrator's home played great role in increasing the use of computer and internet for English language learning. Thus, the implementation of such innovative English language learning practices led the learners to a new learning environment where learners enjoyed learning according to their pace. The researcher observed that multimedia accessibility was satisfactory, digital library and video conferencing facilities were missing in all Government High/Higher Secondary Schools

established under the Department of Elementary and Secondary Education, Government of KP and Punjab.

Moreover, the use of internet connected computer for English language learning increased as this experimental study reached to its end. Furthermore, the integration of technology increased learners' interaction with global community of English language learners. Also, learners showed interest in the use of internet to make their work reliable, accurate, and precise. Also, the students started to use multimedia for their presentations, get themselves registered for E-mail address, join online discussion forums etc. Also, the teachers started to use internet for preparation of their lectures, use multimedia to make their lecture interesting, arrange online groups for students' collaboration.

The factors responsible for the hindrances of technology integration in teaching and learning practices included less interested students and teachers, unavailability of technical staff members for in-time maintenance of equipments, low technology supportive environment at school, less number of equipments and resources according to the strength of the class. However, it was observed that GTMSCAI users used more constructive approach to learning English language and showed more engagement in learning English language as compared to GTM users.

The results of the present study indicated that traditional method of instruction i.e. GTM could not significantly increase the academic achievement of the students in English. However, the researcher observed that all the teachers allowed their students to answer the items of the posttest independently. Also, the principals, teachers and students of the schools selected for the study (Appendix-AG) warmly welcomed the researcher

and appreciated his research work. They also pointed out that such research studies were the need of the hour. Some teachers took keen interest in understanding the whole process of development of materials for English Language teaching and learning, however, some teachers remarked that such lengthy and laborious processes of teaching and learning English is the wastage of time and resources. Also, some schools had some reservations for data collection from students. The researcher took them into confidence and told them that such information would be used only for research purposes and nothing else. All respondents took the posttest and returned it. Thus the respondents' rate of return was 100%.

The posttest administered to both the groups gave total achievement scores of the students with respect to objectives in content area. Thus through the administration of posttest, final data were collected from 128 students. The data collected through posttest were tabulated category-wise, graphs were drawn, and comparative analysis was made. Thus, this study could be useful to educators who want to use digital technologies as well as to school leaders to justify school expenditure in this area. It may also provide an opportunity to students and teachers to use innovative techniques to equip themselves with technological skills and improve English Language learning practices.

Cultural bias was one of the most common limitations in this research as the sampled students were from two different cultures i.e. Pakhtun Culture and Punjabi Culture (the two dominant cultures in Pakistan). The other limitation was language barrier as the sample students had different local languages so additional information or explanations were different to share in local languages. Moreover, computerized lessons

were not available so it took a lot of time to design and validate such plans. If these limitations were not existed, the study would be conducted in less time and by using fewer amounts of resources.

The comparison of pretest mean scores of control and experimental groups is given in table 4.21, whereas, the comparison of posttest mean scores of control and experimental groups is given in table 4.22 and table 4.23.

Table 4.21: Comparison of Pretest Mean and Posttest Mean Scores of Control and Experimental Group Students of KP and Punjab

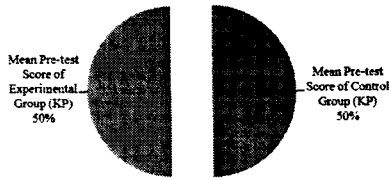


Fig. 4.1

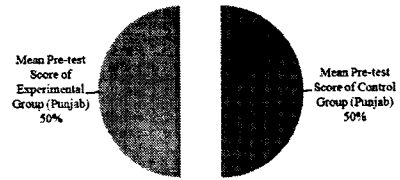


Fig. 4.7

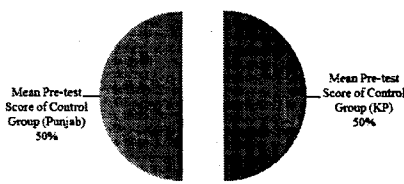


Fig. 4.13

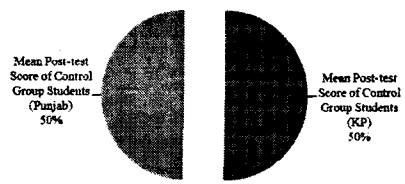


Fig. 4.14

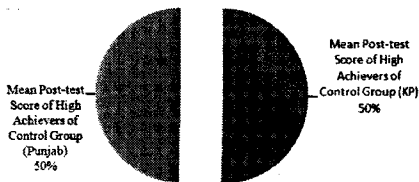


Fig. 4.15

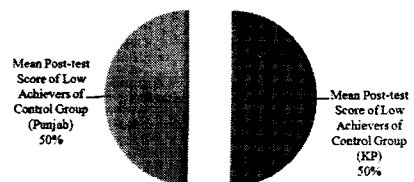


Fig. 4.16

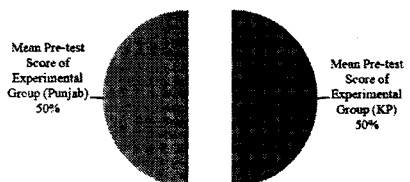


Fig. 4.17

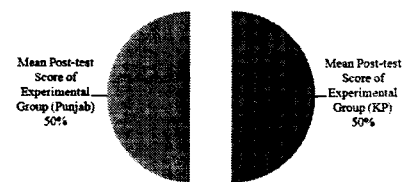


Fig. 4.18

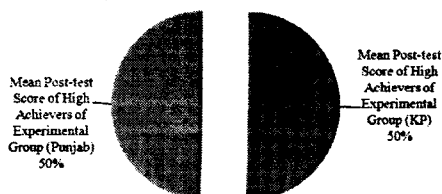


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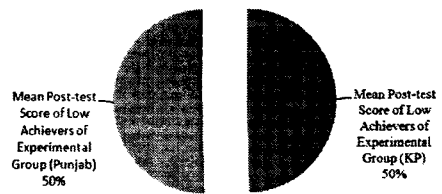


Fig. 4.20

Table 4.22 : Comparison of Posttest Mean Scores of Control Group and Experimental Group Students of KP and Punjab

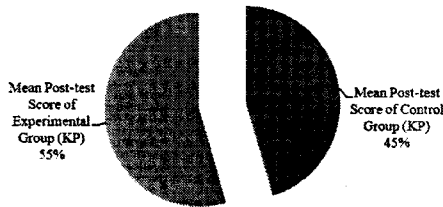


Fig. 4.2

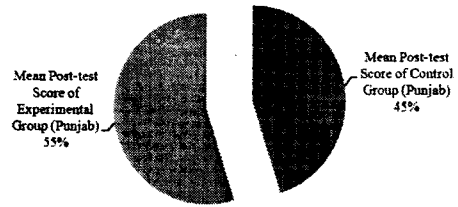


Fig. 4.8

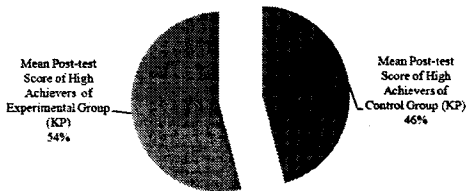


Fig. 4.3

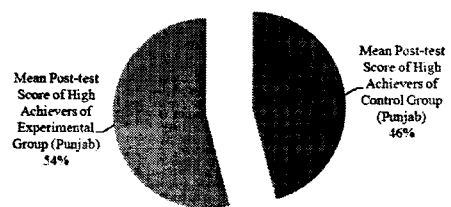


Fig. 4.9

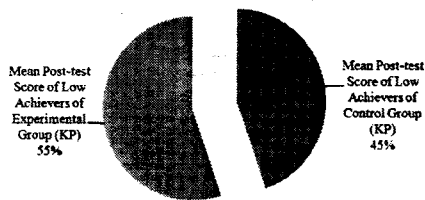


Fig. 4.4

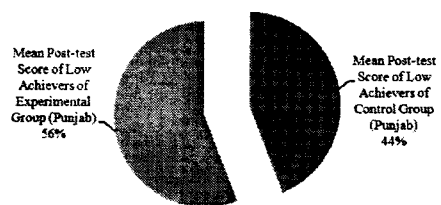


Fig. 4.4.10

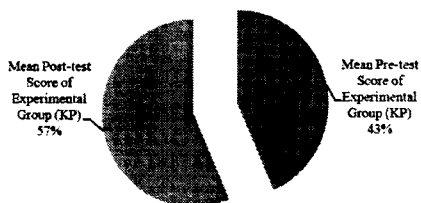


Fig. 4.6

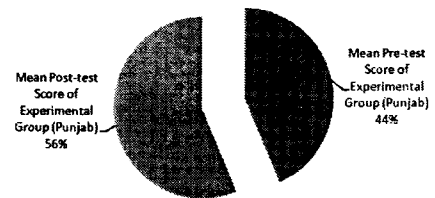


Fig. 4.12

Table 4.23: Comparison of Posttest Mean Scores of Experimental Group Students of KP and Punjab

| Group | Posttest Sections and Scores | | | | | | | | | | |
|---|------------------------------|----------------------|----------------------|--|--|---|--|---|---|---|--|
| | Identifying Listened Words | Identifying Synonyms | Identifying Antonyms | Identifying Missing Words in Sentences | Discussion on a Topic Selected from the Given List | Writing answers of the questions Taken from Units of Textbook | Writing paraphrase of a stanza of the poem "Daffodils" | Reading a Passage of English and writing the answers of the given questions | Writing translation of a passage of English in Urdu | Writing Summary of the Poem "Daffodils" with the Help of a Flow Chart | Writing an essay on "Quaid-e-Azam – Our National Hero" with the help of Mind Map |
| Difference in Posttest Scores of Experimental and Control Group Students of KP | 31% | 3% | -1% | 4% | 19% | 3% | 3% | -1% | 1% | 29% | 26% |
| Difference in Posttest Scores of HA of Experimental and Control Group Students of KP | 30% | 0% | 4% | 9% | 21% | 6% | 3% | -3% | 0% | 26% | 25% |
| Difference in Posttest Scores of LA of Experimental and Control Group Students of KP | 32% | 6% | -5% | 0% | 17% | 0% | 4% | 1% | 2% | 32% | 26% |
| Difference in Posttest Scores of Experimental and Control Group Students of Punjab | 35% | 2% | 0% | -1% | 20% | 1% | 0% | 1% | 1% | 26% | 34% |
| Difference in Posttest Scores of HA of Experimental and Control Group Students of Punjab | 33% | 4% | 5% | 3% | 20% | 1% | 3% | 0% | 1% | 23% | 33% |
| Difference in Posttest | 37% | 0% | -5% | -4% | 21% | 0% | -3% | 3% | 1% | 30% | 30% |

Posttest Sections and Scores

| Group | Identifying Listened Words | Identifying Synonyms | Identifying Antonyms | Identifying Missing Words in Sentences | Discussion on a Topic Selected from the Given List | Writing answers of the questions Taken from Units of Textbook | Writing paraphrase of a stanza of the poem "Daffodils" | Reading a Passage of English and writing the answers of the given questions | Writing translation of a passage of English in Urdu | Writing Summary of the Poem "Daffodils" with the Help of a Flow Chart | Writing an essay on "Quaid-e-Azam – Our National Hero" with the help of Mind Map |
|--|-----------------------------------|-----------------------------|-----------------------------|---|---|--|---|--|--|--|---|
| Scores of LA of Experimental and Control Group Students of Punjab | | | | | | | | | | | |
| Difference in Posttest Scores of Experimental Group Students of Punjab and KP | 1% | 2% | 3% | -3% | -3% | 3% | 9% | -2% | 0% | -3% | 4% |
| Difference in Posttest Scores of HA of Experimental Group Students of Punjab and KP | -1% | - | 3% | -2% | -3% | 0% | 3% | -1% | 3% | -5% | 1% |
| Difference in Posttest Scores of LA of Experimental Group Students of Punjab and KP | 3% | 6% | 4% | -4% | -3% | 6% | 15% | -2% | -3% | -1% | 7% |

Chapter 5

Summary, Findings, Conclusions and Recommendations

This chapter contains brief summary of the study, findings developed from the analyzed data, conclusions drawn from the findings of the study and the recommendations made on the basis of conclusions.

5.1 Summary

The purpose of this study was to comparatively analyze the effectiveness of GTMSCAI and GTM in the attainment of SLOs (students' learning objectives/outcomes) mentioned in the National Curriculum for English, Grade I-XII, 2006, Pakistan for Grade-IX in Khyber Pakhtunkhwa and Punjab. It was hypothesized that the students of KP and Punjab exposed to GTMSCAI will show same performance in the attainment of selected SLOs chosen from SLOs mentioned in the National Curriculum for English, Grade I-XII, 2006, Pakistan for Grade-IX. The sample of the study was consisted of 128 Grade-IX students studying in the schools selected for the study (Appendix-AG). The sampled students were selected through matching their pretest scores and then randomly assigned to experimental and control groups for the treatment. The experimental group was taught through GTMSCAI while the control group was taught through GTM. As the schools selected for the study (Appendix-AG) were located approximately at a distance of 50 kilometers from each other. So, in order to facilitate the sampled students same type of experiment was conducted separately at each school by the nominated teacher (Appendix-AI). The nominated teacher provided the treatment (Appendix-Y) to sampled students via two different types of instruction i.e. GTMSCAI and GTM. The experiment

lasted for 24 days. After the provision of treatment, a self developed achievement test consisting 45 items i.e. 10 items of 10 marks for testing listening comprehension, 20 items of 20 marks for testing vocabulary development, 1 item of 20 marks for testing speaking skill, and 14 items of 50 marks for testing reading and writing skills (Appendix-D) was used as a posttest. The material used for teaching the control group were consisted of lesson plans, textbook, white board, marker, chart, picture, models, printed dictionary whereas the material used for teaching the experimental group were lesson plans, textbook, white board, marker, computer software, and internet. Each of them was prepared in the light of each teaching method. The data were summarized and analyzed by using statistical techniques such as mean, standard deviation, percentage, and t-test. The level of significance used in the study was .05.

5.2 Findings

The following findings revealed as a result of the analysis of data:

1. The mean difference and t-test value of pre-test scores of the control group and experimental group students of KP were 0.23 and 0.27 respectively. This indicates that the difference between the means of the two groups is not significant (Table 4.1). It is also evident from the percentages (50% and 50%) of the pretest mean scores of the control group and experimental group students of KP (Fig. 4.1).
2. The mean difference and t-test value of post-test scores of the control group and experimental group students of KP were 12.97 and 3.88 respectively. This indicates that the difference between the means of the two groups is highly significant (Table 4.2). Moreover, the percentages of the mean post-test scores of the control group and experimental group students of KP were 45% and 55% (Fig. 4.2). As the experimental group students of KP achieved 31%, 19%, 29% and 26% greater posttest mean score on some of the posttest sections such as Identifying Listened Words, Discussion on a Topic Selected from the Given List, Writing Summary of the Poem "Daffodils" with the Help of a Flow Chart, and Writing an essay on "Quaid-e-Azam – Our National Hero" with the help of Mind Map than control group students of KP (Table 4.2.1). This finding is also mentioned by Lee (2010) who explained that web-based technology-enhanced learning enhanced learning outcomes of students. Similarly Skinner (1965) said that the use of ICT tools positively affected

students' learning outcomes. Skinner (1965) also said that the use of teaching machines as a way of providing immediate reinforcement promoted learning. Kulik and Bangert-Downs (1983-1984) have also narrated that CALL enhanced achievement. Blake (2008) has also said that when ICT was used overall students' achievement in English, Mathematics and Science was improved. Mahmood (2012) has also narrated that software enabled their users to increase the quality of learning. Lee (2010) has also narrated that technology-enhanced learning stimulated and enhanced students' learning outcomes. Levy (2009) has indicated that the use of computer positively affected the achievement level of second language learners. Leffa (1993) has also found that learners using electronic dictionaries understood more (86.10 vs. 62.70%) than the users of paper dictionaries. Khawaja and Brennan (1990) found that the weaker learners got more benefits in terms of comprehension and vocabulary learning than the stronger ones. Baytak, Tarman, and Ayas (2011) also found that learners who used technology in language learning showed better result as compared to those who did not use computer technology for English learning. Peregoy and Boyle (2012) have narrated that the use of technological tools enhanced learners' reading and writing skills. Moreover, they said that learners learned more effectively when they used technological tools while using traditional teaching methods. Alsaleem (2014) has narrated that using WhatsApp applications in English dialogue improved learners' writing, vocabulary, word choice, and speaking ability. Conroy (2010) and Wang (2011) have said that ICTs had potential benefits for

students' L2 proficiency. McGrath (2007) has narrated that trainees completed the courses with multimedia in one-third of the time as compared to those who received traditional instructions and reached competency levels up to 50% higher. Rimrott (2015) has said that teacher-talk-tech survey found that 81% teachers believed that classroom computer availability and accessibility increased students' academic performance and 62% faculty members thought that computers helped students to perform better on standardized tests. Kulik and Bangert-Downs (1983-1984), Overton (1981) and Hayes (1987) have narrated that students showed significant gains in their achievement from CAI interventions compared with traditional classroom methods. Hayes (1987) has narrated that by using computer-based instructional system students scored better on standardized achievement tests in selected content areas as compared to students who were without some form of digital intervention. However, Hecht, Roberts, and Schoon (1996) found that students who did not use computer technology gained higher academic achievement as compared to the students who used computer technology.

3. The mean difference and t-test value of post-test scores of the high achievers of the control group and experimental group students of KP were 13.56 and 2.57 respectively. This indicates that the difference between the means of the two groups is highly significant (Table 4.3). It is also evident from their percentages as the percentage of the mean post-test scores of the high achievers of the control group and experimental group students of KP were 46% and 54% (Fig. 4.3). As the high achievers of the experimental group

students of KP achieved 30%, 21%, 26% and 25% greater posttest mean score on some of the posttest sections such as Identifying Listened Words, Discussion on a Topic Selected from the Given List, Writing Summary of the Poem "Daffodils" with the Help of a Flow Chart, and Writing an essay on "Quaid-e-Azam – Our National Hero" with the help of Mind Map than high achievers of the experimental group students of KP (Table 4.3.1). Lee (2010) has also narrated that web-based technology-enhanced learning enhanced learning outcomes of students. Baytak, Tarman, and Ayas (2011) also found that learners who used technology in language learning showed better result as compared to those who did not use computer technology for English learning.

4. The mean difference and t-test value of the post-test scores of the low achievers of the control group and experimental group students of KP were 12.37 and 5.16 respectively. This indicates that the difference between the means of the two groups is highly significant (Table 4.4). Moreover, the percentages of the post-test scores of the low achievers of the control group and experimental group students of KP were 45% and 55% (Fig. 4.4). As the low achievers of the experimental group students of KP achieved 32%, 17%, 32% and 26% greater posttest mean score on some of the posttest items such as Identifying Listened Words, Discussion on a Topic Selected from the Given List, Writing Summary of the Poem "Daffodils" with the Help of a Flow Chart, and Writing an essay on "Quaid-e-Azam – Our National Hero" with the help of Mind Map than low achievers of the experimental group students of KP (Table 4.4.1). Baytak, Tarman, and Ayas (2011) also found

that learners who used technology in language learning showed better result as compared to those who did not use computer technology for English learning.

5. The mean difference and t-test value of pre-test and post-test scores of the control group students of KP were 4.81 and 1.44 respectively. This indicates that the difference between the means of the two groups is not significant (Table 4.5). Moreover, the percentages of pre-test and post-test scores of the control group students of KP were 48% and 52% (Fig. 4.5). Levy (2009) has indicated that the use of computer positively affected the achievement level of second language learners.
6. The mean difference and t-test value of the pre-test and post-test scores of the experimental group students of KP were 17.56 and 5.24 respectively. This indicates that the difference between the means of the two groups is highly significant (Table 4.6). And the percentages of the pre-test and post-test scores of the experimental group students of KP were 43% and 57% (Fig. 4.6). Levy (2009) has indicated that the use of computer positively affected the achievement level of second language learners.
7. The mean difference and t-test value of the pre-test scores of the control group and experimental group students of Punjab were 0.03 and 0.01 respectively. This indicates that the difference between the means of the two groups is not significant (Table 4.7). It is also evident from the percentages (50% and 50%) of the pre-test scores of the control group and experimental group students of Punjab (Fig. 4.7). Levy (2009) has indicated that without computer

technology no positive change may take place in the achievement level of second language learners.

8. The mean difference and t-test value of the post-test scores of the control group and experimental group students of Punjab were 13.65 and 4.27 respectively. This indicates that the difference between the means of the two groups is highly significant (Table 4.8). Moreover, the percentages of the post-test scores of the control group and experimental group students of Punjab were 45% and 55% (Fig. 4.8). As the experimental group students of Punjab achieved 35%, 20%, 26% and 34% greater posttest mean score on some of the posttest items such as Identifying Listened Words, Discussion on a Topic Selected from the Given List, Writing Summary of the Poem "Daffodils" with the Help of a Flow Chart, and Writing an essay on "Quaid-e-Azam – Our National Hero" with the help of Mind Map than experimental group students of Punjab (Table 4.8.1). Lee (2010) has also narrated that technology-enhanced learning enhanced students' learning outcomes. Levy (2009) has indicated that the use of computer positively affected the achievement level of second language learners. Leffa (1993) has also found that learners using electronic dictionaries understood more (86.10 vs. 62.70%) than the users of paper dictionaries.
9. The mean difference and t-test value of the post-test scores of the high achievers of the control group and experimental group students of Punjab were 13.31 and 4.74 respectively. This indicates that the difference between the means of the two groups is highly significant (Table 4.9). And the

percentages of the post-test scores of the high achievers of the control group and experimental group students of Punjab were 46% and 54% (Fig. 4.9). As the high achievers of the experimental group students of Punjab achieved 33%, 20%, 23% and 33% greater posttest mean score on some of the posttest items such as Identifying Listened Words, Discussion on a Topic Selected from the Given List, Writing Summary of the Poem "Daffodils" with the Help of a Flow Chart, and Writing an essay on "Quaid-e-Azam – Our National Hero" with the help of Mind Map than high achievers of the experimental group students of Punjab (Table 4.9.1). Hayes (1987) has narrated that by using computer-based instructional system students scored better on standardized achievement tests in selected content areas as compared to students who were without some form of digital intervention.

10. The mean difference and t-test value of the post-test scores of the low achievers of the control group and experimental group students of Punjab were 14.00 and 6.8 respectively. This indicates that the difference between the means of the two groups is highly significant (Table 4.10). Moreover, the percentages of the post-test scores of the low achievers of the control and experimental group students of Punjab were 44% and 56% (Fig. 4.10). As low achievers of the experimental group students of Punjab achieved 37%, 21%, 30% and 36% greater posttest mean score on some of the posttest items such as Identifying Listened Words, Discussion on a Topic Selected from the Given List, Writing Summary of the Poem "Daffodils" with the Help of a Flow Chart, and Writing an essay on "Quaid-e-Azam – Our National Hero"

with the help of Mind Map than low achievers of the experimental group students of Punjab (Table 4.10.1). Peregoy and Boyle (2012) have narrated that the use of technological tools enhanced learners' reading and writing skills. Moreover, they said that learners learned more effectively when they used technological tools while using traditional teaching methods.

11. The mean difference and t-test value of the pre-test and post-test scores of the control group students of Punjab were 3.77 and 1.44 respectively. This indicates that the difference between the means of the two groups is not significant (Table 4.11). Furthermore, the percentages of the pre-test and post-test scores of the control group students of Punjab were 48% and 52% (Fig. 4.11). Conroy (2010) and Wang (2011) have said that ICTs had potential benefits for students' L2 proficiency. McGrath (2007) has narrated that trainees completed the courses with multimedia in one-third of the time as compared to those who received traditional instructions and reached competency levels up to 50% higher.
12. The mean difference and t-test value of the pre-test and post-test scores of the experimental group students of Punjab were 17.46 and 5.44 respectively. This indicates that the difference between the means of the two groups is highly significant (Table 4.12). Moreover, the percentages of the pre-test and post-test scores of the experimental group students of Punjab were 44% and 56% (Fig. 4.12). Rimrott (2015) has said that teacher-talk-tech survey found that 81% teachers believed that classroom computer availability and accessibility

increased students' academic performance and 62% faculty members thought that computers helped students to perform better on standardized tests.

13. The mean difference and t-test value of the pre-test scores of the control group students of KP and Punjab were 0.25 and 0.07 respectively. This indicates that the difference between the means of the two groups is not significant (Table 4.13). Moreover, the percentages of the pre-test scores of the control group students of KP and Punjab were 50% and 50% (Fig. 4.13).
14. The mean difference and t-test value of the post-test scores of the control group students of KP and Punjab were 1.22 and 0.24 respectively. This indicates that the difference between the means of the two groups is not significant (Table 4.14). Moreover, the percentages of the post-test scores of the control group students of KP and Punjab were 50% and 50% (Fig. 4.14).
15. The mean difference and t-test value of the post-test scores of the high achievers of the control group students of KP and Punjab were 1.00 and 0.32 respectively. This indicates that the difference between the means of the two groups is not significant (Table 4.15). Moreover, the percentages of the post-test scores of the high achievers of the control group students of KP and Punjab were 50% and 50% (Fig. 4.15).
16. The mean difference and t-test value of the post-test scores of the low achievers of the control group and experimental group students of KP and Punjab were 0.56 and 0.28 respectively. This indicates that the difference between the means of the two groups is not significant (Table 4.16). Moreover, the percentages of the post-test scores of the low achievers of the

control group and experimental group students of KP and Punjab were 50% and 50% (Fig. 4.16).

17. The mean difference and t-test value of the pre-test of the experimental group students of KP and Punjab were 0.01 and 0.01 respectively. This indicates that the difference between the means of the two groups is not significant (Table 4.17). Moreover, the percentages of the pre-test of the experimental group students of KP and Punjab were 50% and 50% (Fig. 4.17).
18. The mean difference and t-test value of the post-test scores of the experimental group students of KP and Punjab were 0.09 and 0.03 respectively. This indicates that the difference between the means of the two groups is not significant (Table 4.18). Moreover, the percentages of the post-test scores of the experimental group students of KP and Punjab were 50% and 50% (Fig. 4.18) as the experimental group students of Punjab and KP achieved approximately same posttest mean score on posttest items (Table 4.18.1).
19. The mean difference and t-test value of the post-test scores of the high achievers of the experimental group students of KP and Punjab were 1.25 and 0.6 respectively. This indicates that the difference between the means of the two groups is not significant (Table 4.19). Moreover, the percentages of the post-test scores of the high achievers of the experimental group students of KP and Punjab were 50% and 50% (Fig. 4.19) as high achievers of the experimental group students of Punjab and KP achieved approximately same posttest mean score on posttest sections (Table 4.19.1).

20. The mean difference and t-test value of the post-test scores of the low achievers of the experimental group students of KP and Punjab were 1.06 and 0.44 respectively. This indicates that the difference between the means of the two groups is not significant (Table 4.20). Moreover, the percentages of the post-test scores of the low achievers of the experimental group students of KP and Punjab were 50% and 50% (Fig. 4.20) as the low achievers of the experimental group students of Punjab and KP achieved approximately same posttest mean score on posttest sections, except that the posttest mean score of the low achievers of the experimental group students of Punjab was 15% greater on posttest section “writing paraphrase of a stanza of the poem Daffodils” as compared to the posttest mean score of the low achievers of the experimental group students of KP (Table 4.20.1).

5.3 Conclusions

In the light of statistical analysis and findings, the following conclusions were drawn.

1. The students of KP who were instructed according to GTMSCAI showed better results than the students who received traditional instruction through GTM as the GTMSCAI users' academic achievement was significantly better than the GTM users' academic achievement in English language (Finding No. 2).
2. Similarly, the high achievers of GTMSCAI Users of KP were also found superior to the high achievers of GTM Users of KP as the academic achievement of the high achievers of the GTMSCAI Users was better than the academic achievement of the high achievers of the GTM Users in English language (Finding No. 3).
3. Likewise, the low achievers of GTMSCAI Users of KP were also found superior to the low achievers of GTM Users of KP as the academic achievement of the low achievers of the GTMSCAI Users was better than the academic achievement of the low achievers of the GTM Users in English language (Finding No. 4).
4. The students of KP who were instructed through GTM did not perform better as their academic achievement in English language was not improved significantly by instructing through GTM during experimental time (Finding No. 5).

5. The students of KP who learned through GTMSCAI performed better as their academic achievement in English language was improved significantly by instructing through GTMSCAI during experimental time (Finding No. 6).
6. The students of Punjab who learned through GTMSCAI performed better than the students of Punjab who learned through GTM as GTMSCAI users' academic achievement was significantly better than GTM users' academic achievement in English language (Finding No. 8).
7. Similarly, the high achievers of the students of Punjab who learned through GTMSCAI performed better than the high achievers of the students of Punjab who learned through GTM as the high achievers of the GTMSCAI users' academic achievement was significantly better than the high achievers of GTM users' academic achievement in English language (Finding No. 9).
8. Likewise, the low achievers of the students of Punjab who learned through GTMSCAI performed better than the low achievers of the students of Punjab who learned through GTM as the academic achievement as the low achievers of the GTMSCAI users' academic achievement was significantly better than the GTM users' academic achievement in English language (Finding No. 10).
9. The students of Punjab who learned through GTM did not perform better as their academic achievement in English language was not improved significantly by instructing through GTM during experimental time (Finding No. 11).
10. The students of Punjab who learned through GTMSCAI performed significantly better than the students of Punjab who learned through GTM as

the GTMSCAI users' academic achievement was significantly better than the GTM users' academic achievement in English language (Finding No. 12).

11. The students of KP and Punjab who learned through GTM did not perform better as their academic achievement in English language was not improved significantly by learning through GTM during experimental time (Finding No. 14).
12. Similarly, the high achievers of the students of KP and Punjab who learned through GTM did not perform better as their academic achievement was not improved significantly by instruction through GTM during experimental time (Finding No. 15).
13. Likewise, the low achievers of the students of KP and Punjab who learned through GTM did not perform better as their academic achievement was not improved significantly by learning through GTM during experimental time (Finding No. 16).
14. The students of KP who were instructed through GTMSCAI did not show better results than the students of Punjab who were instructed through GTMSCAI as their academic achievement was not significantly different by instruction through GTMSCAI during experimental time (Finding No. 18).
15. Similarly, the high achievers of the students of KP who were instructed through GTMSCAI also did not show better results than the high achievers of the students of Punjab who were instructed through GTMSCAI as their academic achievement was not significantly different by instruction through GTMSCAI during experimental time (Finding No. 19).

16. Likewise, the low achievers of the students of KP who were instructed through GTMSCAI also did not show better results than the low achievers of the students of Punjab who were instructed through GTMSCAI as their academic achievement was not significantly different by instruction through GTMSCAI during experimental time (Finding No. 20).

17. GTMSCAI based instruction was found to be equally effective for both low achievers and high achievers.

The overall conclusion derived from the study findings was that GTMSCAI was found more effective than GTM in students' academic achievement in English language at secondary school level in KP and Punjab. In addition, it was found that students belong to KP did not differ significantly as compared to students belong to Punjab in academic achievement in English language at secondary school level and vice versa.

In other words, it means that students who enjoyed GTMSCAI practiced on the improvement of listening comprehension and oral communication while learning English as a result they committed less number of errors in answering questions based on listening comprehension and oral communication and showed better academic achievement in English as compared to GTM users whereas; students who enjoyed GTM did not practice on the improvement of such skills as a result, they committed more number of errors in answering such questions and did not show better academic achievement as compared to GTMSCAI users.

In addition, students who enjoyed GTMSCAI developed their comprehension, understanding of concept and creative writing abilities as a result they showed better academic achievement as compared to GTM users whereas; the students who enjoyed GTM focused on cramming, rote memorization while answering the questions based on writing skill development as a result they did not show better academic achievement as compared to GTMSCAI users.

Furthermore, students who enjoyed GTMSCAI followed student-centered approach in which they fully participated in the teaching/learning process of the classroom as a result, they demanded for the use of additional resources/material for expediting English language learning practices; whereas students who enjoyed GTM followed teacher-centered approach in which they partially participated in teaching/learning process of the classroom as the teacher was the absolute authority to declare something/somebody right/wrong and did not make such demands.

5.4 Recommendations

On the basis of findings and conclusions the following important recommendations are made.

1. There is a need to apply effective teaching methods of teaching English in schools as the students were not taught through effective methods.
2. A national survey about availability and utilization of computer related technologies should be carried out for proper planning, training and using ICT in classroom teaching.
3. On the basis of training in ICT application, technology infused curriculum may be developed and implemented to enhance English language learning through technology.
4. The activities in the textbook of English for Grade-IX published by Textbook Board, Peshawar, Pakistan may be revised and modified in accordance with the achievement test of this thesis in order to focus on the development of listening and speaking skills of students.
5. The examination system of Pakistan could be changed to focus on comprehension, concept making and development of creative writing by following the pattern of the achievement test given in this thesis.
6. The National Curriculum for English, Grade I-XII, 2006, Pakistan could be revised and modified to the requirements e.g. use of technological tools and resources in English language learning, use of computer lab by English language teacher etc.

7. The prospective teachers may also be encouraged to apply the techniques available on the websites for teaching English during their teaching practice stage.
8. English language teachers may be informed of the results of such studies to exploit computer and internet technology application for maximum benefit of their students.
9. Adequate funds may be allocated for working teachers' training via refresher courses, workshops, seminars and educational trips regarding the use of latest technologies.
10. Government may provide subsidized internet connection to students, teachers and school's heads to generate web-based learning environment.
11. Teachers and school's head need to communicate to parents of students via E-mail and Social Networking Sites.
12. The Department of Elementary and Secondary Education of KP and Punjab may equip schools with Digital Libraries that interlink all the libraries of the world electronically, promote online and traditional teaching and learning.
13. The Department of Elementary and Secondary Education of KP and Punjab may exercise their rule to solve the serious issues of technology implementation programs, for example, lack of technology infrastructure, lack of technical support, teachers' discomfort with technology use and lack of students' technology skills etc.

14. The Department of Elementary and Secondary Education of KP and Punjab may facilitate students, teachers and school's heads to purchase computer on easy installment because majority of them require computers at their home.
15. The bureaus of curriculum and the curriculum wing of the Ministry of Education, Islamabad may be informed of the results of such study that may serve as guidelines for improving English language textbooks for elementary and secondary classes so that Technology Infused Curriculum may be developed to enhance the learning through technology.

5.5 Recommendations for Further Research Studies

On the basis of findings, conclusions and recommendations, the following areas are recommended for further research.

1. Comparative Analysis of the Effectiveness of Computer Technology in Student Achievement in English Language at Secondary School Level in Sindh and Punjab.
2. Comparative Analysis of the Effectiveness of Computer Technology in Student Achievement in English Language at Secondary School Level in Baluchistan and Punjab.
3. Comparative Analysis of the Effectiveness of Computer Technology in Fast and Slow Learners Achievement in English Language at Secondary School Level in Baluchistan/Punjab/Sindh/Khyber Pakhtunkhwa.
4. Comparative Analysis of the factors promoting the Use of ICT in Student Achievement in English Language at Secondary School Level in India and Pakistan.

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Appendices

Appendix-A

Pretest of English for Grade-IX (Part-I) (Code: EIX/1)

Name: _____ Father's Name: _____
Serial No. _____ (_____) Date: ____ / ____ / ____
(In figures) (In words)

Section I: Listening (Marks: 10, Time 10 minutes)

Listen to each sentence and select a word for filling in the blank. After selection of the word, blacken the corresponding Square in the answer sheet.

1. The Arabs possessed a _____ memory. (1)

- A. Remarked
- B. Readable
- C. Remarkable
- D. Roundtable

2. Hazrat Muhammad (SAW) was _____ in Makkah. (2)

- A. Bear
- B. Born
- C. Barn
- D. Bared

3. Arabs started to mount pressure on the Holy Prophet (SAW) and His _____. (3)

- A. Floor
- B. Flour
- C. Followers
- D. Fellows

4. The Holy Prophet (SAW) is universally acknowledged as the _____ influential figure in history. (4)

- A. Best
- B. Most
- C. More
- D. Test

5. The Holy Prophet (SAW) encountered all the challenges with grace and _____. (5)

- A. Unity
- B. Dignity
- C. Deputy
- D. Duty

6. The word _____ means honest. (6)

- A. Aman
- B. Amoin
- C. Amin
- D. Amount

7. They did not worship the One Allah but worshiped many 'gods'. (7)

- A. Though
- B. Thou
- C. True
- D. Through

8. In those days many Arabs did not _____ a good life. (8)

- A. Leave
- B. Live
- C. Knew
- D. Leaved

9. Allah chose the Prophet (SAW) to make them good and _____ them the laws of a virtuous life. (9)

- A. Preach
- B. Peach
- C. Teach
- D. Touch

10. His enemies in Makkah were now very _____ with him. (10)

- A. Agree
- B. Angry
- C. Hungry
- D. Naughty

Pretest of English for Grade-IX (Part-I) (Code: EIX/1)

Name: _____ Father's Name: _____
Serial No. _____ (_____) Date: ____ / ____ / _____
(In figures) (In words)

Section II: Vocabulary Building

Section II (A): Synonyms: Select the lettered word or phrase that is most nearly similar in meaning to the word in capital letter and blacken its corresponding SQUARE in the Answer Sheet. (Marks: 5, Time 5 minutes)

11. Wicked

- a. Normal
- b. Immoral
- c. Abnormal
- d. Mammal

12. Difference

- a. Dead
- b. Disparity
- c. Negative
- d. Division

13. Gambling

- a. Betting
- b. Ticketing
- c. Fighting
- d. Destroying

14. Worship

- a. Respect
- b. Love
- c. Listen
- d. Leave

15. Memo

- a. Message
- b. Meaning
- c. Money
- d. Voice

Section II (B): Antonyms: Select the lettered word or phrase that is most nearly opposite in meaning to the word in capital letter and blacken its corresponding SQUARE in the Answer Sheet. (Marks: 5, Time 5 minutes)

16. Proclamation

- a. Open
- b. Lighted
- c. Secret
- d. Organic

17. Impressed
a. Announced
b. Disappointed
c. Vacated
d. Occupied
18. Abandon
a. Abdomen
b. Admission
c. Admit
d. Continue
19. Dignity
a. Dishonor
b. Day Light
c. Doomsday
d. Diary
20. Almighty
a. True
b. Trustworthy
c. Powerless
d. All Right

Section II (C): Sentence Completion: Each sentence below has a blank space. Beneath the sentence, there are four lettered words or sets of words. Select the correct lettered word and blacken its corresponding Square in the Answer Sheet. (Marks: 10, Time 10 minutes)

21. Ashfaq Ahmad was a _____ writer.
a. famed
b. famously
c. famous
d. infamous
22. Who is _____ for this chaos.
a. responded
b. responding
c. responsive
d. responsible
23. My mother becomes _____ if get home late.
a. anxious
b. anxieties
c. anxiety
d. anxiously
24. This is a very _____ seminar.
a. information
b. informed
c. informing
d. informative

25. It is _____ to get the correct information from the university office.
- advising
 - advisable
 - advised
 - advise
26. Two and two _____ four.
- take
 - make
 - made
 - true
27. God is present _____.
- near here
 - everywhere
 - in water
 - in air
28. Islam changed the _____.
- Arabia
 - America
 - The world
 - The Ocean
29. The Muslims follow the teachings of _____.
- Stone God
 - Air God
 - Water God
 - Quran Paak
30. Soon all the people of Arabia were _____.
- Traders
 - Teachers
 - Muslims
 - Non-Muslims

Pretest of English for Grade-IX (Part-I) (Code: EIX/1)

Name: _____ Father's Name: _____
Serial No. _____ (_____) Date: ____ / ____ / _____
(In figures) (In words)

Section III: Oral Communication Skills

Instructions for Teacher and Students:

The teacher will introduce himself and will ask the student to introduce himself too. (Marks: 3, Time: 2 minutes). Then the teacher will direct the student to choose a paper from papers, which are placed upside down on the table having topics mentioned below. After selection of paper, the teacher will ask the student to set aside and prepare notes on the chosen topic in two minutes (Marks: 3, Time: 2 minutes). After preparing the notes, the teacher will invite the student to discuss the chosen topic in 3 minutes (Marks: 14, Time: 3 minutes).

Instructions for Teacher: After discussion the teacher will give score to student for written notes and discussion. The score will be given according to the "sample rubric for assessment of student's oral communication skills". The sample rubric is as under: (i) whether the student explains the topic clearly (Marks: 2, Time: 20 seconds) (ii) whether the student uses relevant information (Marks: 2, Time: 20 seconds) (iii) whether the student supports his claims with examples (Marks: 2, Time: 20 seconds) (iv) whether the student speaks clearly (Marks: 2, Time: 20 seconds) (v) whether the student is confident throughout the discussion (Marks: 2, Time: 20 seconds) (vi) whether the student uses body language i.e. maintains eye contact with the teacher etc. (Marks: 2, Time: 20 seconds) (vii) whether the student handles questions properly (Marks: 2, Time: 20 seconds).

31. Discuss anyone of the following topics: (Marks: 20, Time 10 minutes)

Section III (A): What have you understood by reading about the life of Hazrat Muhammad (SAW)?

Section III (B): Discuss an event from the life of Hazrat Muhammad (SAW).

Section III (C): Read the Lesson: "The Savior of Mankind" and express your feelings.

Section III (D): "A thing of beauty is a joy forever". Share your ideas on any such memory related with nature.

Section III (E): Why did Hazrat Muhammad (SAW) tried his level best to convey the words of Allah?

Section III (F): Why did he wish to establish Islam all over the world?

Section III (G): What can be the outcome of ignoring the Muhammad's (SAW) message?

Section III (H): Discuss the qualities of a good preacher?

Section III (I): Discuss in groups the qualities of a good Muslim?

Section III (J): Discuss in groups the qualities of a good leader?

Section III (K): Asking about the location of a place in the Saudi Arabia?

Pretest of English for Grade-IX (Part-I) (Code: EIX/1)

Name: _____ Father's Name: _____
Serial No. _____ (_____) Date: ____ / ____ / ____
(In figures) (In words)

Section IV: Writing Skills

Section IV (A): Write the answers of the following questions in the Answer Sheet.
(Marks: 5, Time 10 minutes)

32. What was the first revelation?
33. What was the condition of mankind before the Holy Prophet (SAW)?
34. When and Where was our Holy Prophet (SAW) born?
35. Why did people call him "Amin" and "Sadiq"?
36. What did the Arabs worship those days?

Section IV (B): Stanza-Paraphrasing

37. Write the paraphrase of the following stanza in the Answer Sheet. (Marks: 5, Time 10 minutes)

It's your bright and tiny spark,
Lights the traveler in the dark,
Thou I know not what you are,
Twinkle, twinkle, little star.

Section IV (C): Comprehension Questions

Read the following paragraph and write the answers of the given questions in the Answer Sheet. (Marks: 10, Time 15 minutes)

Most of the people of Makkah were annoyed when they heard his words. They were angry with the Holy Prophet (SAW) and often did wicked things to him but he did not stop preaching the word of Allah. After a few years they made him leave Makkah and he went and lived in a valley among the hills outside Makkah with his Uncle Hazrat Abu Talib. But he (SAW) came back to Makkah to give the people the message of Allah.

38. Who were annoyed?
39. Who did not stop preaching?
40. What did Hazrat Muhammad (SAW) preach?
41. Who left Makkah?
42. Who came back to Makkah?

Section IV (D): Translation

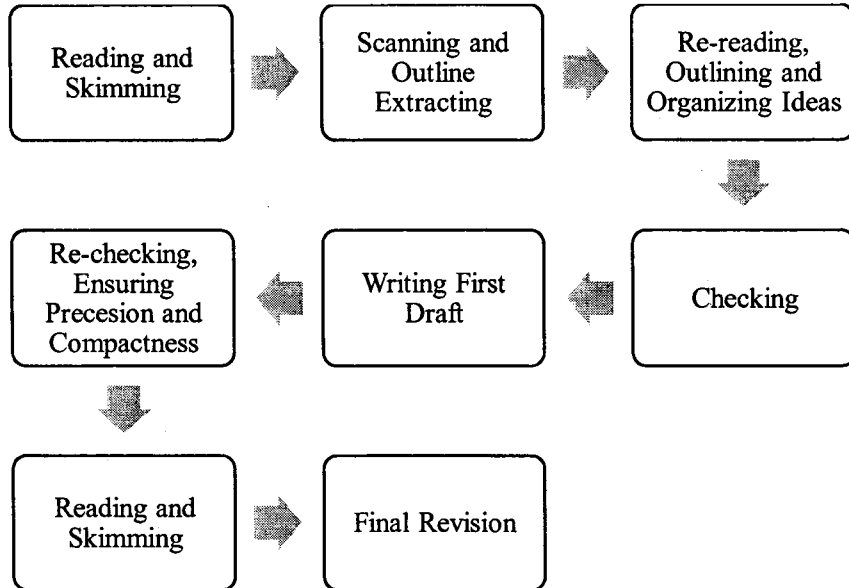
Write the translation of the following passage in Urdu in the Answer Sheet. (Marks: 10, Time 15 minutes)

43. Most of the people of Makkah were annoyed when they heard his words. They were angry with the Holy Prophet (SAW) and often did wicked things to him but he did not stop preaching the word of Allah. After a few years they made him leave Makkah and he went and lived in a valley among the hills outside Makkah with his Uncle Hazrat Abu Talib. But he (SAW) came back to Makkah to give the people the message of Allah.

Section IV (E): Writing summary of a poem

44. Write the summary of the poem “Twinkle, Twinkle, Little Star” with the help of following Flow Chart in Answer Sheet. (Marks: 10, Time 15 minutes)

Flow Chart for Writing a Summary



Twinkle, Twinkle, Little Star

Line 1-4

TWINKLE, twinkle, little star,
How I wonder what you are!
Up above the world so high,
Like a diamond in the sky.

Line 13-16

In the dark blue sky you keep,
And often through my curtains peep,
For you never shut your eye,
Till the sun is in the sky.

Line 5-8

When the blazing sun is gone,
When he nothing shines upon,
Then you show your little light,
Twinkle, Twinkle, all the night.

Line 17-20

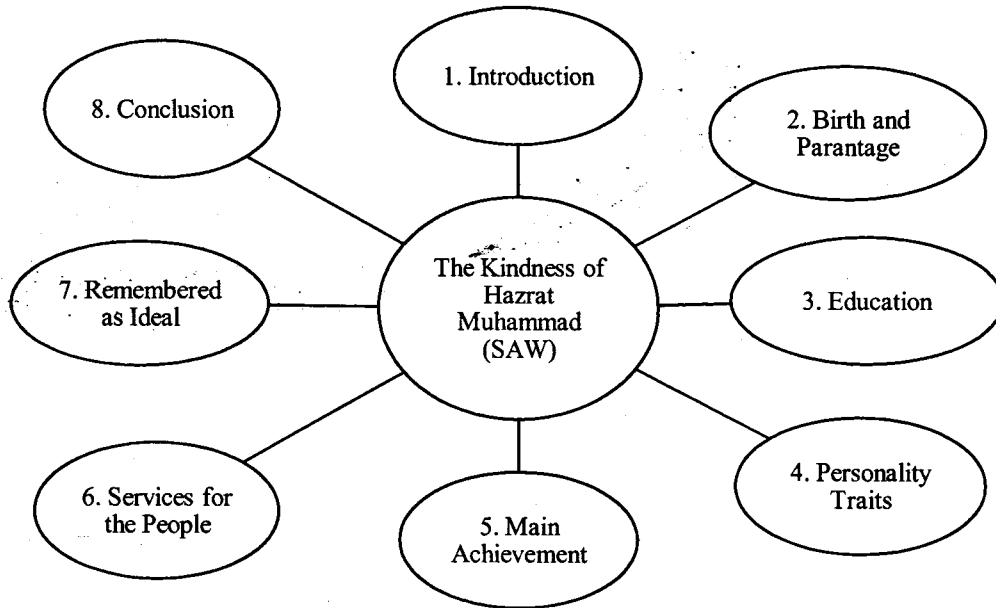
It's your bright and tiny spark,
Lights the traveler in the dark,
Thou I know not what you are,
Twinkle, twinkle, little star.

Line 9-12

Then the traveler in the dark,
Thanks you for your tiny spark,
He could not see which way to go,
If you did not twinkle so.

Section IV (F): Writing an Essay

45. Write an essay on “The Kindness of the Holy Prophet (WAS)” with the help of the following Mind Map in Answer Sheet. (Marks: 10, Time 15 minutes)



Appendix-B
Pretest of English for Grade-IX (Part-I) (Code: EIX/1)
Answer Sheet for Section I: Listening

Name: _____ Father's Name: _____
Serial No. _____ (_____) Date: ____ / ____ / _____

(In figures)

(In words)

1. A B C D

6. A B C D

2. A B C D

7. A B C D

3. A B C D

8. A B C D

4. A B C D

9. A B C D

5. A B C D

10. A B C D

Appendix-C
Pretest of English for Grade-IX (Part-I) (Code: EIX/1)
Answer Sheet for Section II: Vocabulary Building

Name: _____ Father's Name: _____
Serial No. _____ (In figures) _____ (In words) Date: ____ / ____ / _____

Section II: Vocabulary Building

Section II (A): Synonyms

11. A B C D
12. A B C D
13. A B C D
14. A B C D
15. A B C D

Section II (B): Antonyms

16. A B C D
17. A B C D
18. A B C D
19. A B C D
20. A B C D

Section II (C): Sentence Completion

21. A B C D
22. A B C D
23. A B C D
24. A B C D
25. A B C D
26. A B C D
27. A B C D
28. A B C D
29. A B C D
30. A B C D

Appendix-D

Posttest of English for Grade-IX (Part-I) (Code: EIX/1)

Name: _____ Father's Name: _____
Serial No. _____ (_____) Date: ____ / ____ / ____
(In figures) (In words)

Section I: Listening (Marks: 10, Time 10 minutes)

Listen to each stanza of the poem "Daffodils" and select a word for filling in the blank. After selection of the word, blacken the corresponding Square in the answer sheet.

Line 1-6

I wandered lonely as a _____
(1)

- A. Crowd
- B. Bride
- C. Cloud
- D. Daffodil

That floats on high o'er _____ and hills,
(2)

- A. Walls
- B. Valleys
- C. Values
- D. Vales

When all at once I saw a crowd,
A host, of _____ daffodils;
(3)

- A. Golden
- B. Blacken
- C. Weldon
- D. Ridden

Beside the lake, beneath the trees,
Fluttering and dancing in the breeze.

Line 7-12

Continuous as the stars that shine
And twinkle on the milky way,
They _____ in never-ending line
(4)

- A. Reached
- B. Searched
- C. Stretched
- D. Striped

Along the margin of a bay:
Ten thousand saw I at a glance,
Tossing their _____ in sprightly dance.
(5)

- A. Leads
- B. Lips
- C. Hips
- D. Head

Line 13-18

The waves beside them danced; but they
Out-did the sparkling waves in glee:
A poet could not but be _____,
(6)

- A. Gay
- B. Bay
- C. May
- D. Say

In such a jocund company:
I gazed-and gazed-but little thought
What _____ the show to me had brought:
(7)

- A. Health
- B. Wealth
- C. Brought
- D. Thought

Line 19-24

For oft, when on my couch I lie
In vacant or in _____ mood,
(8)

- A. Expensive
- B. Pensive
- C. Massive
- D. Pleasure

They flash upon that _____ eye
(9)

- A. Outward
- B. Inward
- C. Innards
- D. Inside

Which is the bliss of solitude;
And then my heart with pleasure fills,
And _____ with the daffodils.
(10)

- A. Dances
- B. Chances
- C. Waves
- D. Gazes

Posttest of English for Grade-IX (Part-I) (Code: EIX/1)

Name: _____ Father's Name: _____
Serial No. _____ (In figures) (_____ (In words)) Date: ____ / ____ / _____

Section II: Vocabulary Building

Section II (A): Synonyms: Select the lettered word or phrase that is most nearly similar in meaning to the word in capital letter and blacken its corresponding SQUARE in the Answer Sheet. (Marks: 5, Time 5 minutes)

11. APTITUDE

- e. Inclination
- f. Talent
- g. Attitude
- h. Personality

12. SPRIGHTLY

- a. Straightly
- b. Lively
- c. Completely
- d. Boldly

13. Defeat

- a. Overcome
- b. Retreat
- c. Contention
- d. Desolate

14. Glee

- a. Gaze
- b. Glance
- c. Delight
- d. Free

15. Sheer

- a. Clear
- b. Terror
- c. Horror
- d. Utter

Section II (B): Antonyms: Select the lettered word or phrase that is most nearly opposite in meaning to the word in capital letter and blacken its corresponding SQUARE in the Answer Sheet.

(Marks: 5, Time 5 minutes)

16. DYNAMIC

- a. Fantastic
- b. Islamic
- c. Static
- d. Organic

17. VACANT
- a. Important
 - b. Talent
 - c. Vacated
 - d. Occupied
18. SEPARATE
- a. Joint
 - b. Tolerate
 - c. Deviate
 - d. Giant
19. Enormous
- a. Famous
 - b. Continuous
 - c. Tiny
 - d. Irony
20. Moral
- a. Virtuous
 - b. Noticeable
 - c. Successful
 - d. Notorious

Section II (C): Sentence Completion: Each sentence below has a blank space. Beneath the sentence, there are four lettered words or sets of words. Select the correct lettered word and blacken its corresponding Square in the Answer Sheet. (Marks: 10, Time 10 minutes)

21. Everyman pushed forward to _____ the Quaid.
- a. Meet
 - b. See
 - c. Welcome
 - d. See of
22. There was much in those days of violence to _____ Jinnah.
- a. Delight
 - b. Frightened
 - c. Sadden
 - d. Surprise
23. The Quaid was "a man of strong faith" means _____.
- a. A man of firm faith
 - b. A man of powerful faith
 - c. A man of gesticulate faith
 - d. A man of waving faith
24. "In such a jocund company" means _____
- a. In such a rude company
 - b. In such a big company
 - c. In such a happy company
 - d. In such a modern company

25. He ran fast _____ he missed the train.
- Because
 - But
 - So
 - Since
26. I did not come _____ you did not invite me.
- That
 - But
 - Unless
 - Because
27. Everybody was _____ preparing the things for the trip.
- Exciting
 - Excited
 - Excite
 - Excites
28. If you had studied hard _____
-
- You would pass the exam
 - You had pass the exam
 - You would have passed the exam
 - You would had passed the exam
29. We enjoy _____ in Pakistan.
- Working
 - Easy work
 - To work
 - Hard Work
30. We decide _____ English in Pakistan.
- Learning
 - To learn
 - Learn to
 - learned

Section III: Oral Communication Skills

Instructions for Teacher and Students:

The teacher will introduce himself and will ask the student to introduce himself too. (Marks: 3, Time: 2 minutes). Then the teacher will direct the student to choose a paper from papers, which are placed upside down on the table having topics mentioned below. After selection of paper, the teacher will ask the student to set aside and prepare notes on the chosen topic in two minutes (Marks: 3, Time: 2 minutes). After preparing the notes, the teacher will invite the student to discuss the chosen topic in 3 minutes (Marks: 14, Time: 3 minutes).

Instructions for Teacher: After discussion the teacher will give score to student for written notes and discussion. The score will be given according to the "sample rubric for assessment of student's oral communication skills". The sample rubric is as under: (i)

whether the student explains the topic clearly (Marks: 2, Time: 20 seconds) (ii) whether the student uses relevant information (Marks: 2, Time: 20 seconds) (iii) whether the student supports his claims with examples (Marks: 2, Time: 20 seconds) (iv) whether the student speaks clearly (Marks: 2, Time: 20 seconds) (v) whether the student is confident throughout the discussion (Marks: 2, Time: 20 seconds) (vi) whether the student uses body language i.e. maintains eye contact with the teacher etc. (Marks: 2, Time: 20 seconds) (vii) whether the student handles questions properly (Marks: 2, Time: 20 seconds).

31. Discuss anyone of the following topics: (Marks: 20, Time 10 minutes)

Section III (A): What have you understood and what do you think is the message in the poem?

Section III (B): Discuss various aspects of nature as described in the poem.

Section III (C): Read Wordsworth's poem "Daffodils" aloud and explain your feelings.

Section III (D): "A thing of beauty is a joy forever". Share your ideas on any such memory related with nature.

Section III (E): Why did Quaid-e-Azam ignore his ever failing health?

Section III (F): Why did he wish for a complete harmony and unity among the people of Pakistan?

Section III (G): What can be the outcome of ignoring the Quaid's advice?

Section III (H): Discuss the qualities of a good student?

Section III (I): Discuss in groups the qualities of a good citizen?

Section III (J): Discuss in groups the qualities of a good leader?

Section III (K): Asking about the location of a place in the city?

Posttest of English for Grade-IX (Part-I) (Code: EIX/1)

Name: _____ Father's Name: _____
Serial No. _____ (_____) Date: ____ / ____ / ____
(In figures) (In words)

Section IV: Writing Skills

Section IV (A): Write the answers of the following questions in the Answer Sheet.
(Marks: 5, Time 10 minutes)

32. Why did the Quaid have to take long tours during early days of independence?
33. What was the Quaid's concept of our nation?
34. What did Quaid-e-Azam tell the people about equal rights?
35. What is the result of neglecting the advice of the Quaid?
36. What is the central idea of the poem "Daffodils"?

Section IV (B): Stanza-Paraphrasing

37. Write the paraphrase of the following stanza in the Answer Sheet. (Marks: 5, Time 10 minutes)

For oft, when on my couch I lie
In vacant or in pensive mood,
They flash upon that inward eye
Which is the bliss of solitude;
And then my heart with pleasure fills,
And dances with the daffodils.

Section IV (C): Comprehension Questions

Read the following paragraph and write the answers of the given questions in the Answer Sheet. (Marks: 10, Time 15 minutes)

It was August 7, 1947, when a silver aircraft circled over the airport at Mauripur, Karachi. It was watched by a vast, excited crowd while smoothly landing. First to step out of the aeroplane was a tall and dignified man wearing a pure white Sherwani. As soon as he appeared the whole crowd roared with one voice, 'Pakistan Zindabad! Pakistan Zindabad!' And every man pushed forward to welcome him, to get as close to him as possible in order to see him clearly. For here was their great leader, Quaid-e-Azam, the founder and the first Governor General of their new country. Here was their leader who had won Pakistan for them - Muhammad Ali Jinnah.

38. When did the silver aircraft land at Maripur, Karachi?
39. Who was the first man to step out of the aircraft?
40. What was he wearing?
41. What did the whole crowd do when Quaid appeared?
42. Who is the founder of Pakistan?

Section IV (D): Translation

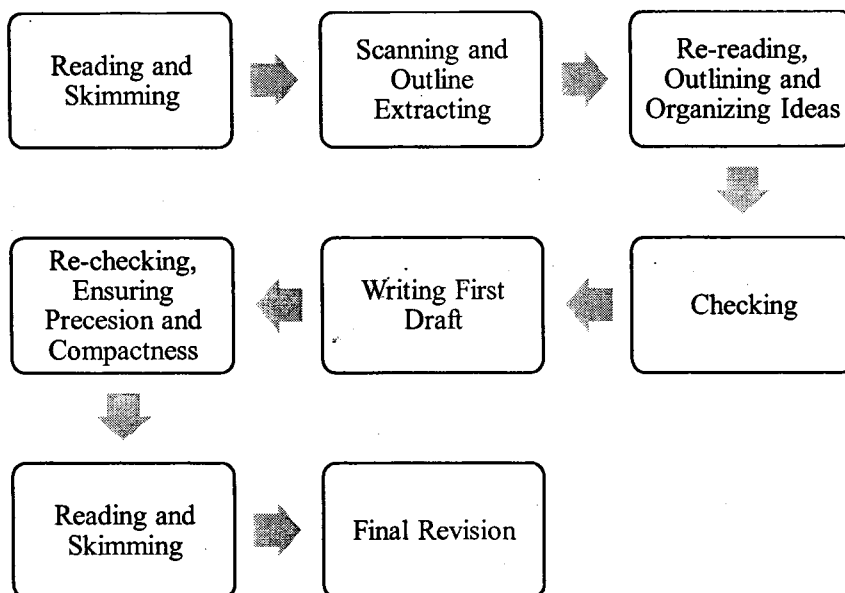
Write the translation of the following passage in Urdu in the Answer Sheet. (Marks: 10, Time 15 minutes)

43. It was August 7, 1947, when a silver aircraft circled over the airport at Mauripur, Karachi. It was watched by a vast, excited crowd while smoothly landing. First to step out of the aeroplane was a tall and dignified man wearing a pure white Sherwani. As soon as he appeared the whole crowd roared with one voice, 'Pakistan Zindabad! Pakistan Zindabad!' And every man pushed forward to welcome him, to get as close to him as possible in order to see him clearly. For here was their great leader, Quaid-e-Azam, the founder and the first Governor General of their new country. Here was their leader who had won Pakistan for them - Muhammad Ali Jinnah.

Section IV (E): Writing summary of a poem

44. Write the summary of the poem “Daffodils” with the help of following Flow Chart in Answer Sheet. (Marks: 10, Time 15 minutes)

Flow Chart for Writing a Summary



Daffodils

Line 1-6

I wandered lonely as a cloud
That floats on high o'er vales and hills,
When all at once I saw a crowd,
A host, of golden daffodils;
Beside the lake, beneath the trees,
Fluttering and dancing in the breeze.

Line 7-12

Continuous as the stars that shine
And twinkle on the milky way,
They stretch in never-ending line
Along the margin of a bay:
Ten thousand saw I at a glance,
Tossing their heads in sprightly dance.

Line 13-18

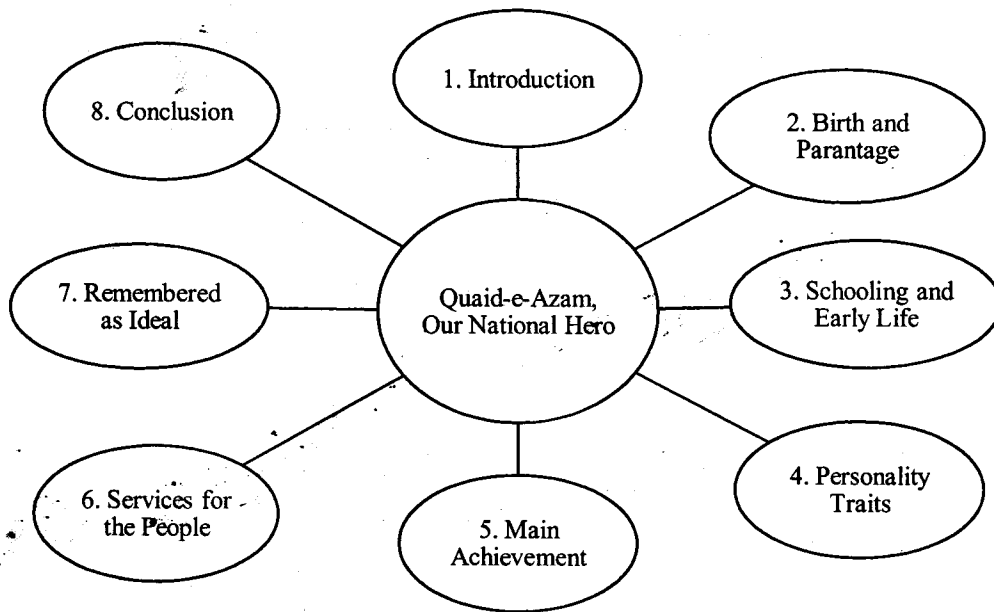
The waves beside them danced; but they
Out-did the sparkling waves in glee:
A poet could not but be gay,
In such a jocund company:
I gazed-and gazed-but little thought
What wealth the show to me had brought:

Line 19-24

For oft, when on my couch I lie
In vacant or in pensive mood,
They flash upon that inward eye
Which is the bliss of solitude;
And then my heart with pleasure fills,
And dances with the daffodils.

Section IV (F): Writing an Essay

45. Write an essay on “Quaid-e-Azam – Our National Hero” with the help of following Mind Map in Answer Sheet. (Marks: 10, Time 15 minutes)



Appendix-E
Posttest of English for Grade-IX (Part-I) (Code: EIX/1)
Answer Sheet for Section I (A): Listening

Name: _____ Father's Name: _____
Serial No. _____ (_____) Date: ____ / ____ / _____

(In figures)

(In words)

1. A B C D

6. A B C D

2. A B C D

7. A B C D

3. A B C D

8. A B C D

4. A B C D

9. A B C D

5. A B C D

10. A B C D

Appendix-F
Posttest of English for Grade-IX (Part-I) (Code: EIX/1)
Answer Sheet for Section II: Vocabulary Building

Name: _____ Father's Name: _____
Serial No. _____ (_____) Date: ____ / ____ / ____
(In figures) (In words)

Section II: Vocabulary Building

Section II (A): Synonyms

- 11. A B C D
- 12. A B C D
- 13. A B C D
- 14. A B C D
- 15. A B C D

Section II (B): Antonyms

- 16. A B C D
- 17. A B C D
- 18. A B C D
- 19. A B C D
- 20. A B C D

Section II (C): Sentence Completion

- 21. A B C D
- 22. A B C D
- 23. A B C D
- 24. A B C D
- 25. A B C D
- 26. A B C D
- 27. A B C D
- 28. A B C D
- 29. A B C D
- 30. A B C D

Appendix-G

Pre-test and Posttest Scores of Control Group and Experimental Group Students of KP

| Control Group Students of KP | | | Experimental Group Students of KP | | |
|------------------------------|----------------|----------------|-----------------------------------|----------------|----------------|
| S. No. | Pre-test Score | Posttest Score | S. No. | Pre-test Score | Posttest Score |
| 1 | 90 | 92 | 1 | 89 | 97 |
| 2 | 88 | 89 | 2 | 88 | 96 |
| 3 | 73 | 82 | 3 | 74 | 93 |
| 4 | 73 | 80 | 4 | 73 | 90 |
| 5 | 72 | 78 | 5 | 72 | 89 |
| 6 | 70 | 78 | 6 | 72 | 89 |
| 7 | 69 | 75 | 7 | 71 | 88 |
| 8 | 69 | 75 | 8 | 68 | 88 |
| 9 | 68 | 71 | 9 | 67 | 87 |
| 10 | 68 | 70 | 10 | 67 | 87 |
| 11 | 65 | 68 | 11 | 67 | 87 |
| 12 | 64 | 68 | 12 | 63 | 87 |
| 13 | 63 | 67 | 13 | 63 | 85 |
| 14 | 60 | 66 | 14 | 61 | 81 |
| 15 | 60 | 64 | 15 | 60 | 79 |
| 16 | 59 | 63 | 16 | 60 | 79 |
| 17 | 58 | 61 | 17 | 58 | 75 |
| 18 | 56 | 61 | 18 | 55 | 73 |
| 19 | 55 | 60 | 19 | 54 | 73 |
| 20 | 52 | 58 | 20 | 51 | 71 |
| 21 | 51 | 57 | 21 | 51 | 70 |
| 22 | 50 | 55 | 22 | 50 | 68 |
| 23 | 49 | 54 | 23 | 48 | 67 |
| 24 | 48 | 53 | 24 | 48 | 67 |
| 25 | 47 | 50 | 25 | 46 | 66 |
| 26 | 44 | 50 | 26 | 44 | 63 |
| 27 | 43 | 49 | 27 | 44 | 62 |
| 28 | 42 | 48 | 28 | 43 | 60 |
| 29 | 42 | 48 | 29 | 43 | 58 |
| 30 | 41 | 46 | 30 | 41 | 56 |
| 31 | 40 | 43 | 31 | 41 | 53 |
| 32 | 40 | 42 | 32 | 41 | 51 |

Appendix-H

Pre-test and Posttest Scores of High Achievers of Control Group and Experimental Group Students of KP

| Control Group Students of KP | | | Experimental Group Students of KP | | |
|------------------------------|----------------|----------------|-----------------------------------|----------------|----------------|
| S. No. | Pre-test Score | Posttest Score | S. No. | Pre-test Score | Posttest Score |
| 1 | 90 | 92 | 1 | 89 | 97 |
| 2 | 88 | 89 | 2 | 88 | 96 |
| 3 | 73 | 82 | 3 | 74 | 93 |
| 4 | 70 | 78 | 4 | 71 | 90 |
| 5 | 69 | 75 | 5 | 68 | 88 |
| 6 | 68 | 71 | 6 | 67 | 87 |
| 7 | 65 | 68 | 7 | 73 | 90 |
| 8 | 73 | 80 | 8 | 72 | 89 |
| 9 | 72 | 78 | 9 | 72 | 89 |
| 10 | 69 | 75 | 10 | 70 | 88 |
| 11 | 68 | 70 | 11 | 67 | 87 |
| 12 | 64 | 70 | 12 | 63 | 87 |
| 13 | 63 | 67 | 13 | 63 | 85 |
| 14 | 60 | 66 | 14 | 61 | 81 |
| 15 | 60 | 64 | 15 | 60 | 79 |
| 16 | 59 | 63 | 16 | 60 | 79 |

Appendix-I

Pre-test and Posttest Scores of Low Achievers of Control Group and Experimental Group Students of KP

| Control Group Students of KP | | | Experimental Group Students of KP | | |
|------------------------------|----------------|----------------|-----------------------------------|----------------|----------------|
| S. No. | Pre-test Score | Posttest Score | S. No. | Pre-test Score | Posttest Score |
| 17 | 58 | 61 | 17 | 58 | 75 |
| 18 | 56 | 61 | 18 | 55 | 73 |
| 19 | 55 | 60 | 19 | 54 | 73 |
| 20 | 52 | 58 | 20 | 51 | 71 |
| 21 | 51 | 57 | 21 | 51 | 70 |
| 22 | 50 | 55 | 22 | 50 | 68 |
| 23 | 49 | 54 | 23 | 48 | 67 |
| 24 | 48 | 53 | 24 | 48 | 67 |
| 25 | 47 | 50 | 25 | 46 | 66 |
| 26 | 44 | 50 | 26 | 44 | 63 |
| 27 | 43 | 49 | 27 | 44 | 62 |
| 28 | 42 | 48 | 28 | 43 | 60 |
| 29 | 42 | 48 | 29 | 43 | 58 |
| 30 | 41 | 46 | 30 | 41 | 56 |
| 31 | 40 | 43 | 31 | 41 | 53 |
| 32 | 40 | 42 | 32 | 41 | 51 |

Appendix-J

Pre-test and Posttest Scores of Control Group and Experimental Group Students of Punjab

| Control Group Students of Punjab | | | Experimental Group Students of Punjab | | |
|----------------------------------|----------------|----------------|---------------------------------------|----------------|----------------|
| S. No. | Pre-test Score | Posttest Score | S. No. | Pre-test Score | Posttest Score |
| 1 | 91 | 93 | 1 | 91 | 98 |
| 2 | 89 | 90 | 2 | 88 | 96 |
| 3 | 76 | 83 | 3 | 77 | 94 |
| 4 | 73 | 80 | 4 | 72 | 93 |
| 5 | 70 | 77 | 5 | 71 | 91 |
| 6 | 70 | 73 | 6 | 70 | 90 |
| 7 | 68 | 71 | 7 | 69 | 88 |
| 8 | 68 | 71 | 8 | 68 | 87 |
| 9 | 66 | 70 | 9 | 67 | 85 |
| 10 | 65 | 70 | 10 | 66 | 84 |
| 11 | 65 | 68 | 11 | 65 | 84 |
| 12 | 64 | 67 | 12 | 63 | 82 |
| 13 | 63 | 66 | 13 | 63 | 80 |
| 14 | 62 | 66 | 14 | 62 | 79 |
| 15 | 61 | 64 | 15 | 60 | 78 |
| 16 | 58 | 63 | 16 | 59 | 76 |
| 17 | 58 | 61 | 17 | 58 | 76 |
| 18 | 57 | 59 | 18 | 56 | 75 |
| 19 | 56 | 57 | 19 | 54 | 73 |
| 20 | 53 | 57 | 20 | 52 | 71 |
| 21 | 52 | 55 | 21 | 52 | 70 |
| 22 | 51 | 53 | 22 | 51 | 68 |
| 23 | 50 | 53 | 23 | 49 | 68 |
| 24 | 49 | 53 | 24 | 48 | 66 |
| 25 | 45 | 51 | 25 | 46 | 64 |
| 26 | 44 | 50 | 26 | 45 | 63 |
| 27 | 44 | 50 | 27 | 45 | 63 |
| 28 | 43 | 47 | 28 | 43 | 62 |
| 29 | 42 | 46 | 29 | 43 | 60 |
| 30 | 42 | 45 | 30 | 42 | 59 |
| 31 | 41 | 45 | 31 | 41 | 57 |
| 32 | 41 | 44 | 32 | 40 | 55 |

Appendix-K

Pre-test and Posttest Scores of High Achievers of Control Group and Experimental Group Students of Punjab

| Control Group Students of Punjab | | | Experimental Group Students of Punjab | | |
|----------------------------------|----------------|----------------|---------------------------------------|----------------|----------------|
| S. No. | Pre-test Score | Posttest Score | S. No. | Pre-test Score | Posttest Score |
| 1 | 91 | 93 | 1 | 91 | 98 |
| 2 | 89 | 90 | 2 | 88 | 96 |
| 3 | 76 | 83 | 3 | 77 | 94 |
| 4 | 73 | 80 | 4 | 72 | 93 |
| 5 | 70 | 77 | 5 | 71 | 91 |
| 6 | 70 | 73 | 6 | 70 | 90 |
| 7 | 68 | 71 | 7 | 69 | 88 |
| 8 | 68 | 71 | 8 | 68 | 87 |
| 9 | 66 | 70 | 9 | 67 | 85 |
| 10 | 65 | 70 | 10 | 66 | 84 |
| 11 | 65 | 68 | 11 | 65 | 84 |
| 12 | 64 | 67 | 12 | 63 | 82 |
| 13 | 63 | 66 | 13 | 63 | 80 |
| 14 | 62 | 66 | 14 | 62 | 79 |
| 15 | 61 | 64 | 15 | 60 | 78 |
| 16 | 58 | 63 | 16 | 59 | 76 |

Appendix-L

Pre-test and Posttest Scores of Low Achievers of Control Group and Experimental Group Students of Punjab

| Control Group Students of Punjab | | | Experimental Group Students of Punjab | | |
|----------------------------------|----------------|----------------|---------------------------------------|----------------|----------------|
| S. No. | Pre-test Score | Posttest Score | S. No. | Pre-test Score | Posttest Score |
| 17 | 58 | 61 | 17 | 58 | 76 |
| 18 | 57 | 59 | 18 | 56 | 75 |
| 19 | 56 | 57 | 19 | 54 | 73 |
| 20 | 53 | 57 | 20 | 52 | 71 |
| 21 | 52 | 55 | 21 | 52 | 70 |
| 22 | 51 | 53 | 22 | 51 | 68 |
| 23 | 50 | 53 | 23 | 49 | 68 |
| 24 | 49 | 53 | 24 | 48 | 66 |
| 25 | 45 | 51 | 25 | 46 | 64 |
| 26 | 44 | 50 | 26 | 45 | 63 |
| 27 | 44 | 50 | 27 | 45 | 63 |
| 28 | 43 | 47 | 28 | 43 | 62 |
| 29 | 42 | 46 | 29 | 43 | 60 |
| 30 | 42 | 45 | 30 | 42 | 59 |
| 31 | 41 | 45 | 31 | 41 | 57 |
| 32 | 41 | 44 | 32 | 40 | 55 |

Appendix-M

Pre-test and Posttest Scores of Control Group Students of KP and Punjab

| Control Group Students of KP | | | Control Group Students of Punjab | | |
|------------------------------|----------------|----------------|----------------------------------|----------------|----------------|
| S. No. | Pre-test Score | Posttest Score | S. No. | Pre-test Score | Posttest Score |
| 1 | 90 | 92 | 1 | 91 | 93 |
| 2 | 88 | 89 | 2 | 89 | 90 |
| 3 | 73 | 82 | 3 | 76 | 83 |
| 4 | 70 | 78 | 4 | 73 | 80 |
| 5 | 69 | 75 | 5 | 70 | 77 |
| 6 | 68 | 71 | 6 | 70 | 73 |
| 7 | 65 | 68 | 7 | 68 | 71 |
| 8 | 73 | 80 | 8 | 68 | 71 |
| 9 | 72 | 78 | 9 | 66 | 70 |
| 10 | 69 | 75 | 10 | 65 | 70 |
| 11 | 68 | 70 | 11 | 65 | 68 |
| 12 | 64 | 70 | 12 | 64 | 67 |
| 13 | 63 | 67 | 13 | 63 | 66 |
| 14 | 60 | 66 | 14 | 62 | 66 |
| 15 | 60 | 64 | 15 | 61 | 64 |
| 16 | 59 | 63 | 16 | 58 | 63 |
| 17 | 58 | 61 | 17 | 58 | 61 |
| 18 | 56 | 61 | 18 | 57 | 59 |
| 19 | 55 | 60 | 19 | 56 | 57 |
| 20 | 52 | 58 | 20 | 53 | 57 |
| 21 | 51 | 57 | 21 | 52 | 55 |
| 22 | 50 | 55 | 22 | 51 | 53 |
| 23 | 49 | 54 | 23 | 50 | 53 |
| 24 | 48 | 53 | 24 | 49 | 53 |
| 25 | 47 | 50 | 25 | 45 | 51 |
| 26 | 44 | 50 | 26 | 44 | 50 |
| 27 | 43 | 49 | 27 | 44 | 50 |
| 28 | 42 | 48 | 28 | 43 | 47 |
| 29 | 42 | 48 | 29 | 42 | 46 |
| 30 | 41 | 46 | 30 | 42 | 45 |
| 31 | 40 | 43 | 31 | 41 | 45 |
| 32 | 40 | 42 | 32 | 41 | 44 |

Appendix-N

Pre-test and Posttest Scores of High Achievers of Control Group Students of KP and Punjab

| Control Group Students of KP | | | Control Group Students of Punjab | | |
|------------------------------|----------------|----------------|----------------------------------|----------------|----------------|
| S. No. | Pre-test Score | Posttest Score | S. No. | Pre-test Score | Posttest Score |
| 1 | 90 | 92 | 1 | 91 | 93 |
| 2 | 88 | 89 | 2 | 89 | 90 |
| 3 | 73 | 82 | 3 | 76 | 83 |
| 4 | 70 | 78 | 4 | 73 | 80 |
| 5 | 69 | 75 | 5 | 70 | 77 |
| 6 | 68 | 71 | 6 | 70 | 73 |
| 7 | 65 | 68 | 7 | 68 | 71 |
| 8 | 73 | 80 | 8 | 68 | 71 |
| 9 | 72 | 78 | 9 | 66 | 70 |
| 10 | 69 | 75 | 10 | 65 | 70 |
| 11 | 68 | 70 | 11 | 65 | 68 |
| 12 | 64 | 70 | 12 | 64 | 67 |
| 13 | 63 | 67 | 13 | 63 | 66 |
| 14 | 60 | 66 | 14 | 62 | 66 |
| 15 | 60 | 64 | 15 | 61 | 64 |
| 16 | 59 | 63 | 16 | 58 | 63 |

Appendix-O

Pre-test and Posttest Scores of Low Achievers of Control Group Students of KP and Punjab

| Control Group Students of KP | | | Control Group Students of Punjab | | |
|------------------------------|----------------|----------------|----------------------------------|----------------|----------------|
| S. No. | Pre-test Score | Posttest Score | S. No. | Pre-test Score | Posttest Score |
| 17 | 58 | 61 | 17 | 58 | 61 |
| 18 | 56 | 61 | 18 | 57 | 59 |
| 19 | 55 | 60 | 19 | 56 | 57 |
| 20 | 52 | 58 | 20 | 53 | 57 |
| 21 | 51 | 57 | 21 | 52 | 55 |
| 22 | 50 | 55 | 22 | 51 | 53 |
| 23 | 49 | 54 | 23 | 50 | 53 |
| 24 | 48 | 53 | 24 | 49 | 53 |
| 25 | 47 | 50 | 25 | 45 | 51 |
| 26 | 44 | 50 | 26 | 44 | 50 |
| 27 | 43 | 49 | 27 | 44 | 50 |
| 28 | 42 | 48 | 28 | 43 | 47 |
| 29 | 42 | 48 | 29 | 42 | 46 |
| 30 | 41 | 46 | 30 | 42 | 45 |
| 31 | 40 | 43 | 31 | 41 | 45 |
| 32 | 40 | 42 | 32 | 41 | 44 |

Appendix-P

Pre-test and Posttest Scores of Experimental Group Students of KP and Punjab

| Experimental Group Students of KP | | | Experimental Group Students of Punjab | | |
|-----------------------------------|----------------|----------------|---------------------------------------|----------------|----------------|
| S. No. | Pre-test Score | Posttest Score | S. No. | Pre-test Score | Posttest Score |
| 1 | 89 | 97 | 1 | 91 | 98 |
| 2 | 88 | 96 | 2 | 88 | 96 |
| 3 | 74 | 93 | 3 | 77 | 94 |
| 4 | 71 | 90 | 4 | 72 | 93 |
| 5 | 68 | 88 | 5 | 71 | 91 |
| 6 | 67 | 87 | 6 | 70 | 90 |
| 7 | 73 | 90 | 7 | 69 | 88 |
| 8 | 72 | 89 | 8 | 68 | 87 |
| 9 | 72 | 89 | 9 | 67 | 85 |
| 10 | 70 | 88 | 10 | 66 | 84 |
| 11 | 67 | 87 | 11 | 65 | 84 |
| 12 | 63 | 87 | 12 | 63 | 82 |
| 13 | 63 | 85 | 13 | 63 | 80 |
| 14 | 61 | 81 | 14 | 62 | 79 |
| 15 | 60 | 79 | 15 | 60 | 78 |
| 16 | 60 | 79 | 16 | 59 | 76 |
| 17 | 58 | 75 | 17 | 58 | 76 |
| 18 | 55 | 73 | 18 | 56 | 75 |
| 19 | 54 | 73 | 19 | 54 | 73 |
| 20 | 51 | 71 | 20 | 52 | 71 |
| 21 | 51 | 70 | 21 | 52 | 70 |
| 22 | 50 | 68 | 22 | 51 | 68 |
| 23 | 48 | 67 | 23 | 49 | 68 |
| 24 | 48 | 67 | 24 | 48 | 66 |
| 25 | 46 | 66 | 25 | 46 | 64 |
| 26 | 44 | 63 | 26 | 45 | 63 |
| 27 | 44 | 62 | 27 | 45 | 63 |
| 28 | 43 | 60 | 28 | 43 | 62 |
| 29 | 43 | 58 | 29 | 43 | 60 |
| 30 | 41 | 56 | 30 | 42 | 59 |
| 31 | 41 | 53 | 31 | 41 | 57 |
| 32 | 41 | 51 | 32 | 40 | 55 |

Appendix-Q

Pre-test and Posttest Scores of High Achievers of Experimental Group Students of KP and Punjab

| Experimental Group Students of KP | | | Experimental Group Students of Punjab | | |
|-----------------------------------|----------------|----------------|---------------------------------------|----------------|----------------|
| S. No. | Pre-test Score | Posttest Score | S. No. | Pre-test Score | Posttest Score |
| 1 | 89 | 97 | 1 | 91 | 98 |
| 2 | 88 | 96 | 2 | 88 | 96 |
| 3 | 74 | 93 | 3 | 77 | 94 |
| 4 | 71 | 90 | 4 | 72 | 93 |
| 5 | 68 | 88 | 5 | 71 | 91 |
| 6 | 67 | 87 | 6 | 70 | 90 |
| 7 | 73 | 90 | 7 | 69 | 88 |
| 8 | 72 | 89 | 8 | 68 | 87 |
| 9 | 72 | 89 | 9 | 67 | 85 |
| 10 | 70 | 88 | 10 | 66 | 84 |
| 11 | 67 | 87 | 11 | 65 | 84 |
| 12 | 63 | 87 | 12 | 63 | 82 |
| 13 | 63 | 85 | 13 | 63 | 80 |
| 14 | 61 | 81 | 14 | 62 | 79 |
| 15 | 60 | 79 | 15 | 60 | 78 |
| 16 | 60 | 79 | 16 | 59 | 76 |

Appendix-R

Pre-test and Posttest Scores of Low Achievers of Experimental Group Students of KP and Punjab

| Experimental Group Students of KP | | | Experimental Group Students of Punjab | | |
|-----------------------------------|----------------|----------------|---------------------------------------|----------------|----------------|
| S. No. | Pre-test Score | Posttest Score | S. No. | Pre-test Score | Posttest Score |
| 17 | 58 | 75 | 17 | 58 | 76 |
| 18 | 55 | 73 | 18 | 56 | 75 |
| 19 | 54 | 73 | 19 | 54 | 73 |
| 20 | 51 | 71 | 20 | 52 | 71 |
| 21 | 51 | 70 | 21 | 52 | 70 |
| 22 | 50 | 68 | 22 | 51 | 68 |
| 23 | 48 | 67 | 23 | 49 | 68 |
| 24 | 48 | 67 | 24 | 48 | 66 |
| 25 | 46 | 66 | 25 | 46 | 64 |
| 26 | 44 | 63 | 26 | 45 | 63 |
| 27 | 44 | 62 | 27 | 45 | 63 |
| 28 | 43 | 60 | 28 | 43 | 62 |
| 29 | 43 | 58 | 29 | 43 | 60 |
| 30 | 41 | 56 | 30 | 42 | 59 |
| 31 | 41 | 53 | 31 | 41 | 57 |
| 32 | 41 | 51 | 32 | 40 | 55 |

Appendix-S

Model Table for T-value Calculation (Manually) for Two Independent Groups

There is no significant difference between the Pretest Mean scores of control group and experimental group students of KP.

| S# | Pre-test Score | Mean Score | Mean Difference | Squared Mean Difference | S# | Pre-test Score | Mean Score | Mean Difference | Squared Mean Difference |
|---|----------------|------------|-----------------|-------------------------|--|----------------|------------|-----------------|-------------------------|
| 1 | 90 | 58.40 | 31.59 | 998.17 | 1 | 89 | 58.63 | 30.38 | 922.64 |
| 2 | 88 | 58.40 | 29.59 | 875.79 | 2 | 88 | 58.63 | 29.38 | 862.89 |
| 3 | 73 | 58.40 | 14.59 | 212.98 | 3 | 74 | 58.63 | 15.38 | 236.39 |
| 4 | 70 | 58.40 | 11.59 | 134.42 | 4 | 71 | 58.63 | 12.38 | 153.14 |
| 5 | 69 | 58.40 | 10.59 | 112.23 | 5 | 68 | 58.63 | 9.38 | 87.89 |
| 6 | 68 | 58.40 | 9.59 | 92.04 | 6 | 67 | 58.63 | 8.38 | 70.14 |
| 7 | 65 | 58.40 | 6.59 | 43.48 | 7 | 73 | 58.63 | 14.38 | 206.64 |
| 8 | 73 | 58.40 | 14.59 | 212.98 | 8 | 72 | 58.63 | 13.38 | 178.89 |
| 9 | 72 | 58.40 | 13.59 | 184.80 | 9 | 72 | 58.63 | 13.38 | 178.89 |
| 10 | 69 | 58.40 | 10.59 | 112.23 | 10 | 70 | 58.63 | 11.38 | 129.39 |
| 11 | 68 | 58.40 | 9.59 | 92.04 | 11 | 67 | 58.63 | 8.38 | 70.14 |
| 12 | 64 | 58.40 | 5.59 | 31.29 | 12 | 63 | 58.63 | 4.38 | 19.14 |
| 13 | 63 | 58.40 | 4.59 | 21.10 | 13 | 63 | 58.63 | 4.38 | 19.14 |
| 14 | 60 | 58.40 | 1.59 | 2.54 | 14 | 61 | 58.63 | 2.38 | 5.64 |
| 15 | 60 | 58.40 | 1.59 | 2.54 | 15 | 60 | 58.63 | 1.38 | 1.89 |
| 16 | 59 | 58.40 | 0.59 | 0.35 | 16 | 60 | 58.63 | 1.38 | 1.89 |
| 17 | 58 | 58.40 | -0.41 | 0.17 | 17 | 58 | 58.63 | -0.63 | 0.39 |
| 18 | 56 | 58.40 | -2.41 | 5.79 | 18 | 55 | 58.63 | -3.63 | 13.14 |
| 19 | 55 | 58.40 | -3.41 | 11.60 | 19 | 54 | 58.63 | -4.63 | 21.39 |
| 20 | 52 | 58.40 | -6.41 | 41.04 | 20 | 51 | 58.63 | -7.63 | 58.14 |
| 21 | 51 | 58.40 | -7.41 | 54.85 | 21 | 51 | 58.63 | -7.63 | 58.14 |
| 22 | 50 | 58.40 | -8.41 | 70.67 | 22 | 50 | 58.63 | -8.63 | 74.39 |
| 23 | 49 | 58.40 | -9.41 | 88.48 | 23 | 48 | 58.63 | -10.63 | 112.89 |
| 24 | 48 | 58.40 | -10.41 | 108.29 | 24 | 48 | 58.63 | -10.63 | 112.89 |
| 25 | 47 | 58.40 | -11.41 | 130.10 | 25 | 46 | 58.63 | -12.63 | 159.39 |
| 26 | 44 | 58.40 | -14.41 | 207.54 | 26 | 44 | 58.63 | -14.63 | 213.89 |
| 27 | 43 | 58.40 | -15.41 | 237.35 | 27 | 44 | 58.63 | -14.63 | 213.89 |
| 28 | 42 | 58.40 | -16.41 | 269.17 | 28 | 43 | 58.63 | -15.63 | 244.14 |
| 29 | 42 | 58.40 | -16.41 | 269.17 | 29 | 43 | 58.63 | -15.63 | 244.14 |
| 30 | 41 | 58.40 | -17.41 | 302.98 | 30 | 41 | 58.63 | -17.63 | 310.64 |
| 31 | 40 | 58.40 | -18.41 | 338.79 | 31 | 41 | 58.63 | -17.63 | 310.64 |
| 32 | 40 | 58.40 | -18.41 | 338.79 | 32 | 41 | 58.63 | -17.63 | 310.64 |
| Sum of Squared Mean Difference = 5603.72 | | | | | Sum of Squared Mean Difference = 5603.5 | | | | |
| Mean of first set of values (X_1) = 58.40 | | | | | Mean of second set of values (X_2) = 58.63 | | | | |
| Mean Difference ($X_1 - X_2$) = 58.40 - 58.63 = -0.23 | | | | | | | | | |
| Standard Deviation of First Set of Values (S_1) = Square root of Sum of Squared Mean Difference of First Set of Values/n-1 = Square root of (5603.72/31) = 13.4449 | | | | | | | | | |
| Standard Deviation of Second Set of values (S_2) = Square root of Sum of Squared Mean Difference of Second Set of Values/n-1 = Square root of (5603.5/31) = 13.4446 | | | | | | | | | |
| t = 0.27 (by putting the values in the t-test formula) | | | | | | | | | |

(t value at 0.5 level of significance = 2.02)

Appendix-T

Model Table for T-value Calculation (via Excel) for Two Independent Groups

| Experimental Group Students of KP | | | Experimental Group Students of Punjab | | | t-test statistics | | |
|---|---------------|----------------|---|---------------|----------------|---|-------------------|-------------------|
| H ₀ 6: There is no significant difference between the pretest mean and posttest mean scores of experimental group students of KP | | | H ₀ 12: There is no significant difference between the pretest mean and posttest mean scores of experimental group students of Punjab. | | | | | |
| S# | Pretest Score | Posttest Score | S# | Pretest Score | Posttest Score | t-Test: Two-Sample Assuming Equal Variances | | |
| 1 | 89 | 97 | 1 | 91 | 98 | | <i>Variable 1</i> | <i>Variable 2</i> |
| 2 | 88 | 96 | 2 | 88 | 96 | Mean | 58.63 | 76.19 |
| 3 | 74 | 93 | 3 | 77 | 94 | Variance | 180.76 | 178.67 |
| 4 | 71 | 90 | 4 | 72 | 93 | Observations | 32 | 32 |
| 5 | 68 | 88 | 5 | 71 | 91 | Pooled Variance | 179.72 | |
| 6 | 67 | 87 | 6 | 70 | 90 | Hypothesized Mean Difference | 0 | |
| 7 | 73 | 90 | 7 | 69 | 88 | df | 62 | |
| 8 | 72 | 89 | 8 | 68 | 87 | t Stat | -5.24 | |
| 9 | 72 | 89 | 9 | 67 | 85 | P(T<=t) one-tail | 1.02 | |
| 10 | 70 | 88 | 10 | 66 | 84 | t Critical one-tail | 1.67 | |
| 11 | 67 | 87 | 11 | 65 | 84 | P(T<=t) two-tail | 2.04 | |
| 12 | 63 | 87 | 12 | 63 | 82 | t Critical two-tail | 2.02 | |
| 13 | 63 | 85 | 13 | 63 | 80 | t-Test: Two-Sample Assuming Equal Variances | | |
| 14 | 61 | 81 | 14 | 62 | 79 | | <i>Variable 1</i> | <i>Variable 2</i> |
| 15 | 60 | 79 | 15 | 60 | 78 | t-Test: Two-Sample Assuming Equal Variances | | |
| 16 | 60 | 79 | 16 | 59 | 76 | | <i>Variable 1</i> | <i>Variable 2</i> |
| 17 | 58 | 75 | 17 | 58 | 76 | Mean | 58.6 | 76.1 |
| 18 | 55 | 73 | 18 | 56 | 75 | Variance | 176 | 154 |
| 19 | 54 | 73 | 19 | 54 | 73 | Observations | 32 | 32 |
| 20 | 51 | 71 | 20 | 52 | 71 | Pooled Variance | 165 | |
| 21 | 51 | 70 | 21 | 52 | 70 | Hypothesized Mean Difference | 0 | |
| 22 | 50 | 68 | 22 | 51 | 68 | df | 62 | |
| 23 | 48 | 67 | 23 | 49 | 68 | t Stat | -5.4 | |
| 24 | 48 | 67 | 24 | 48 | 66 | P(T<=t) one-tail | 0 | |
| 25 | 46 | 66 | 25 | 46 | 64 | t Critical one-tail | 1.67 | |
| 26 | 44 | 63 | 26 | 45 | 63 | P(T<=t) two-tail | 0 | |
| 27 | 44 | 62 | 27 | 45 | 63 | t Critical two-tail | 2.02 | |
| 28 | 43 | 60 | 28 | 43 | 62 | | | |
| 29 | 43 | 58 | 29 | 43 | 60 | | | |
| 30 | 41 | 56 | 30 | 42 | 59 | | | |
| 31 | 41 | 53 | 31 | 41 | 57 | | | |
| 32 | 41 | 51 | 32 | 40 | 55 | | | |
| Mean | 58.63 | 76.19 | | 58.63 | 76.09 | | | |
| Variance | 180.76 | 178.67 | | 175.98 | 154.22 | | | |
| n | 32 | 32 | | 32 | 32 | | | |
| t=value | 5.24 | | | 5.44 | | | | |

Appendix-U

Table of Specifications for Pretest and Posttest

| Cognitive level objectives —————→ | | Knowledge | Comprehension | Application | Total |
|--|------------------------------|-----------|---------------|-------------|------------|
| | | | | | Marks |
| Content ↓ | Listening Comprehension | | 10 | | 10 |
| | Vocabulary Building | | | | |
| | a. Synonyms | | | | |
| | b. Antonyms | 30 | | | 30 |
| | c. Sentence Completion | | | | |
| | Oral Communication Skills: | | | | |
| | Discussion | | | 20 | 20 |
| | Writing Skills: | | | | |
| | a. Answering Short Questions | | | | |
| | b. Paraphrasing | | | | |
| | c. Comprehension Questions | | 40 | | 40 |
| | d. Translation into Urdu | | | | |
| | e. Summary of poem | | | | |
| f. Essay writing | | | | | |
| Total Marks | | 30 | 50 | 20 | 100 |

Appendix-V

Model Table for Marking Items of Pretest/Posttest

Student of Serial No. 1

Cognitive level objectives \longrightarrow

| | | Knowledge | Comprehension | Application | Total |
|----------------|------------------------------|-----------|---------------|--------------|--------------|
| | | | | | Marks |
| Content | Listening Comprehension | | 8/10 | | 8/10 |
| | Vocabulary Building | | | | |
| | a. Synonyms | 20/30 | | | 20/30 |
| | b. Antonyms | | | | |
| | c. Sentence Completion | | | | |
| | Oral Communication Skills: | | | | |
| | Discussion | | | 15/20 | 15/20 |
| | Writing Skills: | | | | |
| | a. Answering Short Questions | | | | |
| | b. Paraphrasing | | | | |
| | c. Comprehension Questions | | 29/40 | | 29/40 |
| | d. Translation into Urdu | | | | |
| | e. Summary of poem | | | | |
| | f. Essay writing | | | | |
| | Total Marks | | 20/30 | 37/50 | 15/20 |

Appendix-W

Curriculum for English for Class IX, Prescribed by Curriculum Wing, Ministry of Education, Govt. of Pakistan

Competency 1: Reading and Thinking Skills

Standard 1: All students search for, discover and understand a variety of text types through tasks which require multiple reading and thinking strategies for comprehension, fluency and enjoyment

Bench Mark 3: Analyze information from a visual cue or a graphic organizer to show complex processes, procedures, comparisons, contrasts, and cause and effect relationships.

Student's Learning Outcome 1: Interpret the situation in a visual cue and with the help of mind map giving vocabulary, structure and sensory details to write a short description.

Student's Learning Outcome 2: Analyze information in bar graphs, line graphs, and diagrams describing complex processes and procedures, comparisons and contrast to write a short written report.

Bench March 4: Gather, analyze, evaluate and synthesize information to use for a variety of purposes including a research project using various aids and study skills.

Student's Learning Outcome 1: Use dictionaries to i) locate guide words ii) locate entry words iii) choose appropriate word definition iv) identify pronunciation through pronunciation key v) identify syllable division, and stress pattern vi) identify parts of speech vii) identify correct spellings viii) identify phrases through key words ix) recognize abbreviations used in a dictionary xii) locate phrases and idioms and xiii) comprehend notes on usage.

Student's Learning Outcome 2: Locate appropriate synonyms and antonyms in a thesaurus.

Student's Learning Outcome 4: Use library skills to i) alphabetize book titles, words and names ii) locate fiction and non-fiction books/ books by subject iii) understand card catalogue iv) locate and use card catalogue v) identify three kinds of catalogue cards i.e. author card, title card, subject card vi) use case and shelf labels in the library vii) use the reference section in the library and viii) use computer catalogue.

Student's Learning Outcome 5: Utilize effective study strategies e.g. note-taking/ note-making, writing a summary and creating a mind map to organize ideas.

Student's Learning Outcome 6: Use textual aids such as table of contents, footnote, glossary, preface, sub headings etc. to i) comprehend texts ii) identify and select relevant information in a book.

Student's Learning Outcome 7: Utilize appropriate informational sources including encyclopedias and internet sources.

Standard 2: All students read and analyze literary text to seek information, ideas, enjoyment, and to relate their own experiences to those of common humanity as depicted in literature

Bench Mark 1: Analyze short stories, poems, and essays; make connections between literary texts and their own lives.

Student's Learning Outcome 2: Analyze story elements: characters, events, setting, plot, theme, tone, point of view.

Student's Learning Outcome 7: Read poem and give orally and in writing i) Theme and its development; ii) Personal response with justification; iii) Paraphrase/ summary.

Student's Learning Outcome 8: Read and analyze how a writer/ poet uses

language to i) appeal to the senses through use of figurative language including similes and metaphors; ii) affect meaning through use of synonyms with different connotations and denotations; iii) create imagery.

Competency 2: Writing Skills

Standard 1: All Students produce with developing fluency and accuracy, academic, transactional and creative writing, which is focused, purposeful and shows an insight into the writing process.

Bench Mark 1: Analyze a variety of written discourse and use them in their own compositions, techniques for effective text organization, development, and authors' techniques that influence reader.

Student's Learning Outcome 2: Select and use a variety of pre-writing strategies such as brainstorming, mind mapping, outlining etc.

Student's Learning Outcome 5: Write an essay on a general subject: i) Write an introductory paragraph with a clear central thought; ii) Provide key ideas which prove, explain or support the central thought; iii) Use a separate paragraph for each key idea; iv) Incorporate evidence (facts, quotations, etc), examples (analogies, anecdotes, etc.), or different points of view (elaborating an idea/ opinion) to support each key idea; v) Use appropriate transitional devices to connect ideas within and between paragraphs; vi) Add a closing or summary paragraph with a synthesis of central idea, syntheses of each supporting ideas, a general concluding statement; vii) Use correct conventions of grammar and punctuation; and viii) Use appropriate vocabulary.

Bench Mark 2: Write a variety of expository, persuasive, analytical essays, and personal narratives for different purposes and audiences.

Student's Learning Outcome 5: Analyze a simple book review of a story book to write one.

Student's Learning Outcome 6: Write a book review of a simple story book: i) Write a summary of the book; ii) Gather information about the author; iii) Evaluate the plot, character and setting; iv) Prepare an outline for the book review.

Student's Learning Outcome 7: Analyze questions to write effective and focused answers of required length: i) Mark key words; ii) Identify verbs and tenses; iii) Recognize question types such as a) Literal/ textual/ factual b) Interpretive c) Inferential d) Evaluative e) Personal response f) Open ended.

Student's Learning Outcome 8: Use summary skills to write summary/ précis of simple passages/ poems.

Student's Learning Outcome 9: Use paraphrasing skills to paraphrase stanzas: i) Mark thought groups in the stanza; ii) restate the message in simple prose; iii) Replace poetic words with simple ones.

Bench Mark 3: Write expository, persuasive, analytical essays, and personal narratives to produce a variety of academic and creative texts for various audiences.

Student's Learning Outcome 1: Write and revise formal letters to people in extended social and academic environment for various purposes. Write the address on the envelope clearly and in proper format.

Student's Learning Outcome 2: Write and revise applications to people in extended environment using correct format, layout and tone.

Student's Learning Outcome 3: Analyze letters to editor to recognize effective ways of explaining and presenting an idea, a point, or/and opinion.

Student's Learning Outcome 5: Analyze and compare various informal emails to note differences of conventions, vocabulary, style and tone.

Student's Learning Outcome 6: Write informal and formal emails in extended social and academic environment.

Student's Learning Outcome 8: Fill in forms legibly, following instructions

and supplying correct information.

Bench Mark 4: Plan and draft their writing; revise and edit for various organization patterns of sequence, comparison, contrast, classification, cause and effect, logical flow of ideas through flexible and clear signal and reference words, point of view, supporting evidence, overall effect, appropriate punctuation and vocabulary.

Student's Learning Outcome 4: Proof read and edit their own, peers' and given texts for i) faulty sentence structure; ii) errors of subject/ verb agreement; iii) unclear pronoun reference; iv) errors of correct word form; v) errors of punctuations and spelling.

Competency 3: Oral Communication Skills

Standard 1: Students use appropriate social and academic conventions of spoken discourse for effective oral communication with individuals and in groups, on both informal and formal settings.

Bench Mark 1: Use extended linguistic exponents to communicate appropriately for various functions and co-functions of advice, hopes, fears, queries, in extended social environment.

Student's Learning Outcome 1: Select and use appropriate expression for various functions: a) Ask and respond to questions of academic and social nature; b) Ask and express preferences, emotions, wishes needs and requirements by giving reasons; c) Express satisfaction/ dissatisfaction, approval/ disapproval, and agreement/ disagreement (fully and partially) politely; d) Express hopes and fears; e) Express refusal politely; f) Seek and offer advice; and g) Express personal needs, feelings, emotions and ideas.

Bench Mark 2: Demonstrate through formal talks, group oral presentations, informal interviews, the social and academic conventions and dynamics to communicate information/ idea.

Student's Learning Outcome 1: Demonstrate heightened awareness of conventions and dynamics of group discussion and interaction: a) Offer and respond to greetings, compliments, invitations, introductions and farewells; b) Demonstrate an understanding of ways to show gratitude, apology, anger and impatience; c) Ask, restate and simply directions and instructions; d) Present and explain one's point of view clearly; e) Support or modify one's opinions with reasons; f) Acknowledge others' contributions; g) Agree and disagree politely at appropriate times; h) Share information and ideas; i) Clarify and restate information and ideas; j) Modify a statement made by a peer; k) Exhibit appropriate conventions of interruptions; l) Negotiate solutions to problems, interpersonal misunderstanding, and disputes; m) Express humor through verbal and non verbal means; n) Summarize the main points of discussion for the benefit of the whole group; o) Join in a group response at the appropriate time; and p) Use polite forms to negotiate and reach consensus.

Student's Learning Outcome 2: Identify and analyze appropriate expressions and interviewing techniques to conduct and give short interviews of a friend or relative on specific topics: a) Introduce self and others; b) Prepare and ask relevant questions for an interview; c) Give appropriate responses using reciprocal ability; d) Make notes of the responses in an interview; e) Respond appropriately and effectively to questions; f) Use language that is appropriate; g) Demonstrate sensitivity and respect to others; h) Compile the oral responses of the interview in written form.

Student's Learning Outcome 3: Create and deliver simple group/ class presentations on various themes, problems and issues: a) Negotiate verbally to identify roles in preparations for presentations; b) Present and explain one's point of view clearly; c) Support or modify one's opinions with reasons; d) Acknowledge others' contributions; e) Present with clarity, the main point of

subject of the presentation; f) Support the topic or subject with effective factual information; g) Structure ideas and arguments in a coherent logical fashion; h) Exhibit appropriate etiquettes of interacting with audience; i) Demonstrate appropriate conventions for use of various audio-visual aids.

Student's Learning Outcome 4: Evaluate orally to comment on the presentation of peers against a pre-developed student/ teacher criteria: a) Clear and cohesive main idea; b) Consistent organization of ideas; c) Sufficient supporting detail; d) Effective speaking style; e) Appropriate body language, dress and posture; f) Suitable tone; g) Appropriate interaction with audience and h) Appropriate selection and use of audio-visual aids.

Competency 4: Formal and Lexical Aspects of Language

Standard 1: Pronunciation: All students understand and articulate widely acceptable pronunciation, stress and intonation patterns of the English language for improved communication.

Bench Mark 1: Pronounce (acceptably) new words, and use appropriate stress and intonation pattern in sustained speech to communicate effectively.

Student's Learning Outcome 1: Use the pronunciation key (in a dictionary) to pronounce words with developing accuracy.

Student's Learning Outcome 2: Recognize silent letters in words and pronounce them with developing accuracy.

Student's Learning Outcome 3: Recognize, pronounce and represent primary and secondary stress in words. Refer to a dictionary, if required.

Student's Learning Outcome 4: Recognize and use varying intonation patterns as aids in spoken and written discourse to a) show attitude; b) highlight focus in meaning; c) divide speech into thought groups.

Standard 2: Vocabulary: All students enhance vocabulary for effective communication.

Bench Mark 1: Analyze different kind of texts to identify how lexical items are used to convey different meanings; use lexical items in context and with correct spellings; use lexical items to show different meanings in their own speech and writing.

Student's Learning Outcome 1: Enhance and use appropriate vocabulary and correct spelling in speech and writing: a) illustrate the use of dictionary for finding appropriate meaning and correct spellings; b) use a thesaurus to locate the synonyms closest to the meaning to the given word in context; c) Examine and interpret transitional devices that show comparison, contrast, reason, concession, condition, emphasis; d) Deduce the meaning of unfamiliar words from the context using contextual clues; e) Analyze and understand common roots and use that knowledge to recognize the meaning of new words; f) Analyze and understand common suffixes; use that knowledge to determine the meaning of unfamiliar words; g) Understand connotations and denotations; explore the use of synonyms with varying shades of meaning used for various purposes e.g. propaganda, irony, parody and satire; h) Examine and focus the vocabulary that indicates the writer's attitude; i) Recognize words that vary in meaning according to their connotations; j) Use appropriate connotation in their own writing; k) Identify and avoid verbosity; use one word substitution, eliminate redundancy; k) Show cultural and gender sensitivity by making appropriate adjustments in language for social, academic and daily life situations; l) Understand that cognates increase comprehension of spoken and written languages; identify commonly occurring cognates in English and Urdu.

Student's Learning Outcome 2: Translate passages from English to Urdu: a) Use the knowledge of literal and figurative meaning, grammatical gender and syntax to translate passages from English to Urdu; b) Understand that most phrases and idioms do not translate literally from one language to another.

Standard 3: Grammar and Structure: All students understand grammatical functions and use

the principles of grammar, punctuation, and syntax for developing accuracy in their spoken and written.

Bench Mark 1: Recognize grammatical functions and concepts of tense and aspect, selected transitional devices and modal verbs, and use them in their speech and writing.

Student's Learning Outcome 1: Noun, Noun Phrases and Clauses: a) Demonstrate use of more collective, countable and uncountable, material and abstract nouns; b) Apply rules of change of number of nouns learnt earlier; and c) Recognize and demonstrate use of some nouns that change meaning in the plural form e.g. arm-arms (a part of body), arms (weapons).

Student's Learning Outcome 2: Pronouns: a) Illustrate use of pronouns learnt earlier; b) Identify, and demonstrate use of relative pronouns; c) Recognize the rules for using indefinite pronouns; d) Illustrate use of pronoun-antecedent agreement; and e) Illustrate use of cataphoric and anaphoric references.

Student's Learning Outcome 3: Articles: a) Apply rules for use of a, an and the, where applicable in speech and writing.

Student's Learning Outcome 4: Verbs and Verb Phrases: a) Illustrate use and functions of all modal verbs; b) Illustrate use of regular and irregular verbs in speech and writing; c) Illustrate use of transitive and intransitive verbs; d) Make and use present and past participles; e) Illustrate use of infinitives and infinitive phrases; and f) Illustrate use of gerunds and gerund phrases.

Student's Learning Outcome 5: Tenses: a) Illustrate use of tenses learnt earlier; b) Identify, change the form of, and use Present and Past Perfect Continuous tenses.

Student's Learning Outcome 6: Adjectives and Adjective Phrases and Clauses: a) Classify adjectives into different types; change and use degrees of adjectives; b) Follow order of adjectives in sentences; c) Form adjectives from nouns and verbs; d) Use adjective phrases and clauses.

Student's Learning Outcome 7: Adverbs and Adverbials: a) Illustrate use of adverbs learnt earlier; b) Recognize varying positions of adverbs in sentences according to their kinds and importance; c) Identify and use degrees of comparison of adverbs; and d) Use adverbial phrases and clauses.

Student's Learning Outcome 8: Prepositions and Prepositional Phrases: a) Illustrate the use of prepositions of position, time and movement and direction; b) Use prepositional phrases and clauses.

Student's Learning Outcome 9: Transitional Devices: a) Use transitional devices learnt earlier.

Bench Mark 2: Recognize and use punctuation including use of commas in phrases, complex clauses and sentences.

Student's Learning Outcome 1: a) Apply rules of capitalization wherever applicable; b) Illustrate use of punctuation marks learnt earlier; c) Recognize and rectify faulty punctuation in given passages and own work; d) Recognize and use comma to separate i) a subordinate clause which precedes a main clause, ii) a non-defining relative clause, iii) coordinate clauses joined by one of the pure conjunctions; e) Recognize and use colon to separate independent clauses when there is a sharp antithesis; f) Recognize and use semicolon between i) parts of compound sentence when no conjunction is used, ii) the clauses of a compound sentence before conjunctive adverbs; g) Recognize and use quotation marks to enclose i) both parts of an interrupted quotation, ii) unusual or peculiar terms to which attention is directed to make the meaning clear; h) Recognize and use hyphen to indicate the division of a word at the end of a line; i) Recognize and use dash as a separator to indicate that a sentence has been broken off, or to indicate a new direction of thought; j) Recognize and use parenthesis (Round Brackets) to i) enclose numbers or

letters in enumerations in the text, ii) express an amount in numbers previously expressed in words, iii) mark off explanatory or supplementary material; k) Recognize and use omission marks or ellipses to specify the omission or deletion of letters or words in sentences

Bench Mark 3: Analyze sentence types and structure, recognize and apply the concept and function of coordination and subordination in extended writing tasks.

Student's Learning Outcome 1: Sentence Structure: a) Analyze sentences for clauses and phrases; b) identify and differentiate between main, subordinate and relative clause.

Student's Learning Outcome 2: Types of Sentences: a) Classify, use, convert and make declarative (affirmative and negative), interrogative, exclamatory, and imperative sentences; b) identify and differentiate between simple, compound and complex sentences; c) Use conditional sentences; d) Use active and passive voice appropriately in speech and writing according to the required communicative function; e) Recognize the rules of and change the narration of statements, requests/ orders and questions.

Appendix-X

Pretest Content

| S # | Unit No. | Topic of the Unit and Its Content | Textbook's Detail |
|-----|----------|--|---|
| 1 | 1 | The Holy Prophet Hazrat Muhammad (PBUH) (Reading Comprehension Skills: Vocabulary Building, Comprehension Questions, Idiomatic Translation; Grammatical Skills: Relative Pronouns; Simple Sentences, Compound Sentences, Complex Sentences; Cataphoric Reference, Anaphoric Reference; Oral Communication Skills: Intonation, Stress, Discussing People; Writing Skills: Writing an Essay) | Textbook of English Grade – IX, Published by Khyber Pakhtunkhwa Textbook Board, Peshawar |
| 1 | 1 | The Saviour of Mankind (Reading Comprehension Skills: Vocabulary Building, Comprehension Questions, Idiomatic Translation; Grammatical Skills: Relative Pronouns; Simple Sentences, Compound Sentences, Complex Sentences; Cataphoric Reference, Anaphoric Reference; Oral Communication Skills: Intonation, Stress, Discussing People; Writing Skills: Writing an Essay) | English 9 (2014-15), Published by Punjab Textbook Board, Lahore |

Appendix-Y

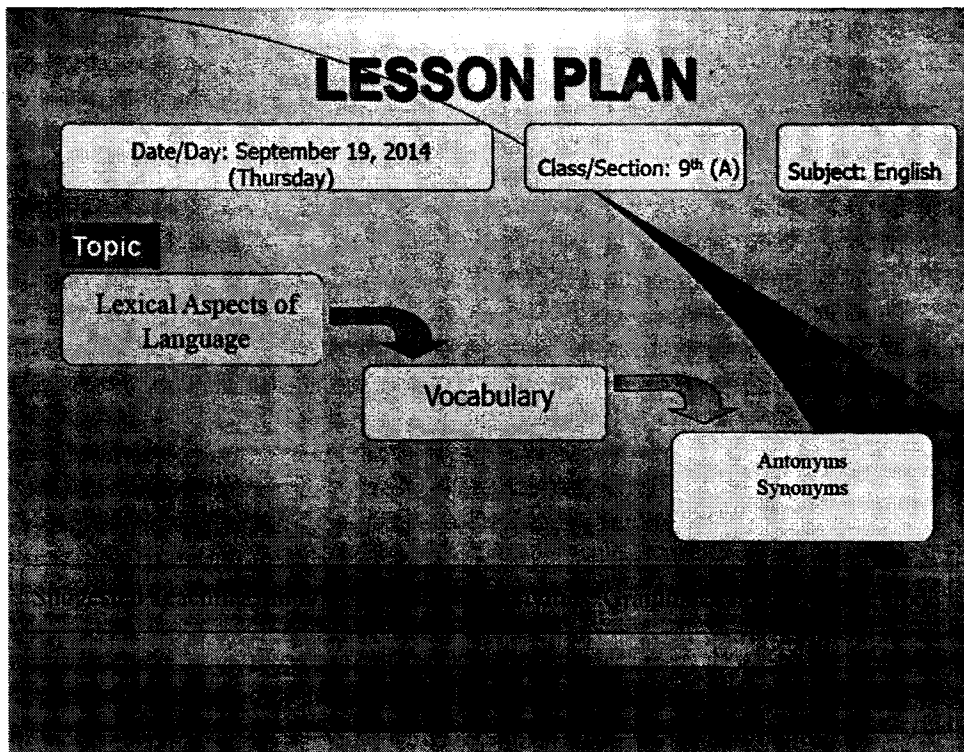
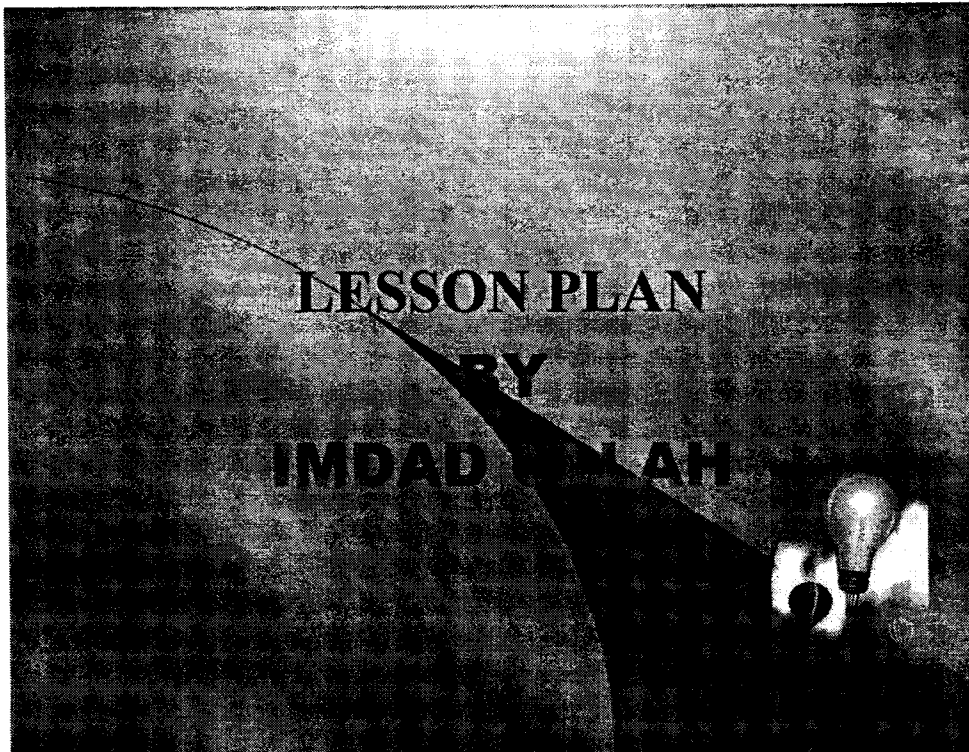
Posttest Content

| S # | Unit No. | Topic of the Unit and Its Content | Textbook's Detail |
|-----|----------|---|---|
| 1 | 3 | <p style="text-align: center;">Quaid – A Great Leader</p> <p>(Reading Comprehension Skills: Vocabulary Building, Comprehension Questions, Idiomatic Translation; Grammatical Skills: Relative Pronouns; Simple Sentences, Compound Sentences, Complex Sentences; Cataphoric Reference, Anaphoric Reference; Oral Communication Skills: Intonation, Stress, Discussing People; Writing Skills: Writing an Essay)</p> | <p>Textbook of English Grade – IX, Published by Khyber Pakhtunkhwa Textbook Board, Peshawar</p> |
| 2 | 14 | <p style="text-align: center;">The Daffodils</p> <p>(Reading Comprehension Skills: Vocabulary Building, Comprehension Questions, Figures of Speech: Metaphor and Simile; Grammatical Skills: Conjunctions, Interjections, Oral Communication Skills: Group Discussion; Writing Skills: Writing Summary of the Poem, Writing Paraphrase of the Stanzas)</p> | -Do- |
| 3 | 5 | <p style="text-align: center;">Daffodils</p> <p>(Reading Comprehension Skills: Vocabulary Building, Synonyms, Connotation, Denotation; Comprehension Questions, Figures of Speech: Simile, Metaphor, Imagery, Personification; Grammatical Skills: Collective Nouns; Prepositions of Place, Coordinating Conjunctions, Subordinating Conjunctions, Present Participles, Past Participles; Oral Communication Skills: Using Phrases to express satisfaction/dissatisfaction, Acting out Role Plays; Writing Skills: Writing Summary of the Poem, Writing Paraphrase of the Stanzas)</p> | <p>English 9 (2014-15), Published by Punjab Textbook Board, Lahore</p> |
| 4 | 6 | <p style="text-align: center;">The Quaid's Vision and Pakistan</p> <p>(Reading Comprehension Skills: Vocabulary Building, Comprehension Questions, Synonyms, Antonyms, Use of Idioms in Sentences, Connotation, Denotation, Dictionary Skills, Primary and Secondary Stress; Grammatical Skills: Adverb of Manner, Adverb of Place, Adverb of Time, Infinitives, Gerunds, Conditional Sentences, Past Perfect Tense; Oral Communication Skills: Discussing Events, Asking for directions; Writing Skills: Writing a Paragraph and an Essay with the help of mind-map.</p> | -Do- |

Appendix-Z

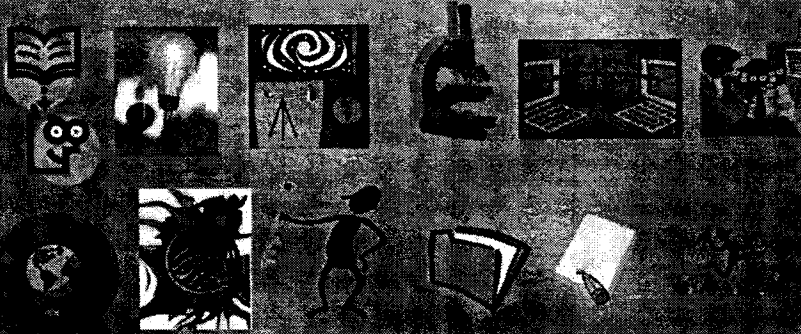
Model Lesson Plan





LESSON PLAN (contd.)

> Introduction/Preparation



LESSON PLAN (contd.)

Presentation
Model Reading

Page 50

Unit 5: DAFFODILS

William Wordsworth
(1770-1850)

Line Number 1 to 6

I wandered lonely as a cloud
That floats on high o'er vales and hills,
When all at once I saw a crowd,
A host, of golden daffodils,
Beside the lake, beneath the trees,
Fluttering and dancing in the breeze

Line Number 7 to 12

Continuous as the stars that shine
And twinkle on the Milky Way,
They stretch in a never-ending line
Along the margin of a bay:
Ten thousand saw I at a glance,
Tossing their heads in sprightly dance

Line Number 13 to 18

The waves beside them danced; but they
Outdid the sparkling waves in glee:
A poet could not but be gay,
In such a jocund company:
I gazed-and gazed-but little thought
What wealth the show to me had brought

Line Number 19 to 24

For oft, when on my couch I lie
In vacant or in pensive mood,
They flash upon that inward eye
Which is the bliss of solitude;
And then my heart with pleasure fills,
And dances with the daffodils

LESSON PLAN (contd.)

Presentation

Dictionary Skills

The diagram illustrates the layout of a dictionary page. It shows two columns of text. A box labeled 'Dictionary Skills' has lines pointing to specific elements: the title 'Dictionary Skills', the first column of text, and the second column of text. The text in the columns is dense and appears to be a list of words with their definitions.

LESSON PLAN (contd.)

Presentation

Dictionary Skills

The diagram illustrates the layout of a dictionary page. It shows two columns of text. A box labeled 'Dictionary Skills' has lines pointing to specific elements: the title 'Dictionary Skills', the first column of text, and the second column of text. The text in the columns is dense and appears to be a list of words with their definitions.

LESSON PLAN (contd.)

Presentation

English-9 2014-15 Published by PTB Lahore

Unit 7: The Saviour of Mankind

Exercise on Page # 7

Prefixes and Suffixes Related Information on Page # 7

To predict the meaning, we have to read the context carefully and look for suffixes and base words.

| Root Words | Prefix/Suffix | Root Words | Prefix/Suffix |
|------------|---------------|------------|---------------|
| Author | co-author | Postpone | postponement |
| Necessary | unnecessary | Adjust | adjustment |
| Fair | unfair | Treat | treatment |
| Moral | immoral | Meaning | meaningful |
| Tie | untie | Hard | hardship |
| Danger | endanger | Friend | friendship |
| Conscious | unconscious | Fond | fondness |
| Fortune | misfortune | Happy | happiness |
| Kind | kindness | Comfort | comfortable |
| Care | careless | | |

Note: Affixation is a process of word formation by adding a prefix or suffix to a root word.

LESSON PLAN (contd.)

Presentation

English-9 2014-15 Published by PTB Lahore

Unit 5: Daffodils

Glossary on Page # 52

| Word | Meaning |
|------------|---|
| Fluttering | moving in the air, flying |
| Glee | joy happiness |
| Host | in large number |
| Jocund | happy |
| Twinkle | shine with a light that keeps changing from bright to faint, and from faint to bright |
| Pensive | thoughtful |
| Solitude | pleasant loneliness |

LESSON PLAN (contd.)

Practice

English-9 2014-15 Published by PTB Lahore
 Unit 4: Hazrat Asma (Razi Allah Anha)
 Exercise on Page # 55

Use a thesaurus to find three more synonyms of the following words.

| Word | Synonyms | | | | |
|-------|----------|---------|---|---|---|
| | 1 | 2 | 3 | 4 | 5 |
| Saw | Glance | Gaze | | | |
| Shine | Twinkle | Sparkle | | | |

LESSON PLAN (contd.)

Recapitulation (Posttest)

POSTTEST

Achievement Test 1 (for testing the achievement level of student learning outcomes mentioned in lesson plan 5-A1)

Section A: Writing Skills

Question 1_ Write down the synonyms of the given words.

1. saw _____, 2. sparkle _____, 3. glee _____

Question 2_ Write down the antonyms of the given words.

1. jocund _____, 2. pensive _____, 3. host _____

Question 3_ fill in the blanks with suitable Similes.

1. as busy as a _____, 2. as black as _____, 3. as gentle as a _____

Appendix-AA

List of Model Lesson Plans Provided to Nominated Teacher

The following Lesson Plans were designed for teaching Unit 3 & 14 of Textbook of English Grade-IX Published by KPTB Peshawar and Units 5 & 6 of English-9 2014-15 Published by PTB Lahore.

| | | | |
|---|--------------------|----------------------|--------|
| Lesson Plan 1 Word and Its Meaning | 8/28/2014 1:19 PM | Microsoft Office ... | 680 KB |
| Lesson Plan 2 Connotation and Denotation | 8/28/2014 5:07 PM | Microsoft Office ... | 25 KB |
| Lesson Plan 3 Cognate | 8/28/2014 3:03 AM | Microsoft Office ... | 14 KB |
| Lesson Plan 4 Analogy | 8/28/2014 3:05 AM | Microsoft Office ... | 14 KB |
| Lesson Plan 5 Discussion | 8/28/2014 3:11 AM | Microsoft Office ... | 17 KB |
| Lesson Plan 6 Writing Summary | 8/28/2014 3:19 AM | Microsoft Office ... | 14 KB |
| Lesson Plan 7 Writing Answers of Compr... | 8/28/2014 3:23 AM | Microsoft Office ... | 24 KB |
| Lesson Plan 8 Translation of Paragraph in... | 8/28/2014 3:25 AM | Microsoft Office ... | 16 KB |
| Lesson Plan 9 Kinds of Noun | 8/28/2014 3:30 AM | Microsoft Office ... | 18 KB |
| Lesson Plan 10 Kinds of Pronoun | 8/28/2014 3:35 AM | Microsoft Office ... | 16 KB |
| Lesson Plan 11 Kinds of Verb | 8/28/2014 3:37 AM | Microsoft Office ... | 15 KB |
| Lesson Plan 12 Active and Passive Voice | 8/28/2014 3:38 AM | Microsoft Office ... | 15 KB |
| Lesson Plan 13 Tenses | 8/28/2014 3:39 AM | Microsoft Office ... | 16 KB |
| Lesson Plan 14 Direct and Indirect Narrati... | 8/28/2014 3:42 AM | Microsoft Office ... | 16 KB |
| Lesson Plan 15 Punctuation | 8/28/2014 3:43 AM | Microsoft Office ... | 16 KB |
| Lesson Plan 16 Writing a Paragraph | 8/28/2014 3:44 AM | Microsoft Office ... | 15 KB |
| Lesson Plan 17 Writing an Essay | 8/27/2014 6:34 PM | Microsoft Office ... | 17 KB |
| Lesson Plan 18 Writing A Letter | 8/28/2014 3:47 AM | Microsoft Office ... | 15 KB |
| Lesson Plan 19 Writing An Email | 8/28/2014 3:48 AM | Microsoft Office ... | 15 KB |
| Lesson Plan 20 Interview | 8/28/2014 3:49 AM | Microsoft Office ... | 52 KB |
| Lesson Plan 21 Kinds of Sentence | 8/28/2014 3:52 AM | Microsoft Office ... | 17 KB |
| Lesson Plan 22 Cataphoric and Anaphori... | 8/28/2014 3:53 AM | Microsoft Office ... | 17 KB |
| Lesson Plan 23 Articles | 8/28/2014 3:55 AM | Microsoft Office ... | 16 KB |
| Lesson Plan 24 Preposition | 8/28/2014 4:00 AM | Microsoft Office ... | 21 KB |
| Lesson Plan 25 Proof Reading | 8/27/2014 10:06 PM | Microsoft Office ... | 16 KB |
| Lesson Plan 26 Expressions of Satisfactio... | 8/28/2014 4:02 AM | Microsoft Office ... | 16 KB |
| Lesson Plan 27 Figures of Speech | 8/28/2014 4:07 AM | Microsoft Office ... | 21 KB |
| Lesson Plan 28 Conjunction | 8/28/2014 4:09 AM | Microsoft Office ... | 16 KB |
| Lesson Plan 29 Transitional Devices | 8/28/2014 4:10 AM | Microsoft Office ... | 15 KB |
| Lesson Plan 30 Writing Summary of Poem | 8/28/2014 4:11 AM | Microsoft Office ... | 16 KB |
| Lesson Plan 31 Role Play | 8/27/2014 11:44 PM | Microsoft Office ... | 15 KB |
| Lesson Plan 32 Kinds of Adverb | 8/28/2014 1:43 AM | Microsoft Office ... | 17 KB |
| Lesson Plan 33 Conditionals | 8/28/2014 4:13 AM | Microsoft Office ... | 15 KB |

Appendix-AB

Panel of English Language Teachers

- Muhammad Asim (MA English, M. Ed) Government High School Pubbi (District: Nowshera)
- Nisar Muhammad Khan (MA English, M. Ed) Government High School Risalpur (District: Nowshera)
- Rukhsana Begam (MA English, M. Ed) Government Girls High School Risalpur (District: Nowshera)
- Naveed Iqbal (MA English, B.Ed.) Government Higher Secondary School Attock City (District: Attock)
- Shazia Anwar (MA English, M.Ed.) Government Girls High School No. 1 Attock City (District: Attock)
- Muhammad Israr (MA English, M.Ed.) Government Pilot High School Attock City (District: Attock)
- Taqeeem-Ud-Din (MA English, M. Ed) Government Higher Secondary School Kherabad (District: Nowshera)
- Ghazala Yasmin (MA English, M. Ed) Government Higher Secondary School Kherabad (District: Nowshera)
- Muhammad Waseem (MA English, M. Ed) Government Higher Secondary School Nizampur (District: Nowshera)
- Shahid Zaman (MA English, M. Ed) Government High School Shaidu (District: Nowshera)

Appendix-AC

Panel of English Language Experts

The panel of experts who examined the posttest.

- Taj Wali Khan (SS English), GHSS Jabbi (District Nowshera, KP)
- Umar Farooq (SST), GHSS No. 2 Nowshera Cant. (District Nowshera, KP)
- Kamran Khan (SS English), GHSS Khesghi (District Nowshera, KP)
- Khuram Murad (SS English), GHSS Kamra (District Attock, Punjab)
- Kamran Jamil (SS English), GHSS Tarnol, (District Attock, Punjab)
- Asghar Ali (SST) GHS Hasan Abdal (District Attock, Punjab)

Note: These experts were selected on the basis of the following considerations:

- Subject Specialist/Teacher at any Government High/Higher Secondary School located in KP or Punjab
- Professional had at least 10-year English Language teaching experience at government level institutions
- Professional had at least 10-year working experience in test development at Boards of Intermediate and Secondary Education

Appendix-AD

Panel of Facilitators

The researcher also planned to contact some persons for their assistance to facilitate data collection.

- Sheikh Saeed Ahmad, Principal, Pilot High School Attock City, Attock, Punjab
- Saif- Ur-Rahman, Principal, Government High School No. 1 Nowshera Cantonment Board, Nowshera, KP
- Farah Naz, Principal, Government Girls High School Nowshera Cantonment Board, District Nowshera, Khyber Pakhtunkhwa
- Inhan Uddin, Principal, Government High School No. 2 Akora Khattak, District Nowshera, Khyber Pakhtunkhwa
- Riaz Ahmad, Principal, Government Girls Higher Secondary School Kherabad, District Nowshera, Khyber Pakhtunkhwa
- Haroon Wadood, Principal, Government Higher Secondary School Attock City, District Attock, Punjab
- Najma Saleem, Principal, Government Girls High School No. 1 Attock City, District Attock, Punjab
- Farooq Ghafar, Principal, Government High School Haji Shah, District Attock, Punjab
- Fauzia Rafique, Principal, Government Girls High School No. 2 Attock City, District Attock, Punjab

Appendix-AE

LETTER OF RECOMMENDATION



Silver Jubilee 1983-2013

الجامعة الإسلامية العالمية
INTERNATIONAL ISLAMIC UNIVERSITY
ISLAMABAD – PAKISTAN
P.O. Box 1243, H-10 Campus, web: www.iu.edu.pk, Email: admissions@iu.edu.pk
Fax: +92-61-9257916, Tel: +92-61-9257988, 9257985

LETTER OF RECOMMENDATION

Ref. #: PhDEdu./222/2014

Dated: September 3, 2014

Dear Sir/Madam,

Mr. Imdad Ullah, Regt. 59-FSS/PhDEdu/S10 is conducting his research work for his PhD Dissertation under the supervision of Professor Dr. N. B. Jumani, Dean Faculty of Social Sciences & Chairman Department of Education, International Islamic University Islamabad. Please provide him maximum cooperation and assistance in his research related matters.

Thanks

Professor Dr. N. B. Jumani

Dean Faculty of Social Sciences & Chairman Department of Education

International Islamic University Islamabad

Appendix-AF

Schools Selected for Pilot Study

| S. No. | Name of School |
|---------------|---|
| 1 | Government High School No. 2 Akora Khattak, District Nowshera (Khyber Pakhtunkhwa) |
| 2 | Government Girls Higher Secondary School Shaidu, District Nowshera (Khyber Pakhtunkhwa) |
| 3 | Government Girls High School No. 1 Attock City (English Medium), District Attock (Punjab) |
| 4 | Government High School Haji Shah, District Attock (Punjab) |

Appendix-AG

Schools Selected for Study

| S. No. | Name of School |
|---------------|--|
| 1 | Government High School No. 1 Nowshera Cant., District Nowshera (Khyber Pakhtunkhwa) |
| 2 | Government Girls Higher Secondary School Nowshera Cant., District Nowshera, (Khyber Pakhtunkhwa) |
| 3 | Government Higher Secondary School Attock City (English Medium), District Attock (Punjab) |
| 4 | Government Girls High School No. 2 Attock City (English Medium), District Attock (Punjab) |

Appendix-AH

List of Hypotheses

H₀ 1: There will be no significant difference in the pretest and posttest mean scores of the groups taught through GTMSCAI.

H₀ 2: There will be no significant difference in the posttest mean scores of the groups taught through GTM and GTMSCAI.

H₀ 3: There will be no significant difference in the posttest mean scores of the groups taught through GTMSCAI.

Appendix-AI

Detail of Nominated Teacher

Shahid Zaman (MA English, M. Ed) Government Higher Secondary School Shaidu,
Nowshera, KP, Pakistan

Appendix-AJ

Module for Teaching Four Units of Textbooks

Day: 1st, 2nd, 3rd

Part 1

Recording 3.1

Page 26

Unit 3

QUAID -- A GREAT LEADER (KPTB Peshawar)

John Walton

Paragraph 1

It was August 7, 1947, when a silver aircraft circled over the airport at Mauripur, Karachi. It was watched by a vast, excited crowd while smoothly landing. First to step out of the aeroplane was a tall and dignified man wearing a pure white Sherwani. As soon as he appeared the whole crowd roared with one voice, 'Pakistan Zindabad! Pakistan Zindabad!' And every man pushed forward to welcome him, to get as close to him as possible in order to see him clearly. For here was their great leader, Quaid-e-Azam, the founder and the first Governor General of their new country. Here was their leader who had won Pakistan for them --- Muhammad Ali Jinnah.

Paragraph 2

As he drove through the great sea of people that stretched from the airport to the city, through all the cheers and tears of joy and the never ending slogans of 'Pakistan Zindabad'.

Reading and Thinking Skills (Listen/Watch and Read)

Listening Portion of KP Textbook\Page 26 Unit 3 QUAID A GREAT LEADER Paragraph 1 & 2.mp3

Lexical Aspects of Language

Vocabulary

Glossary

Lesson Plans\Lesson Plan 27 Vocabulary Textbook of English Grade-IX by KPTB Peshawar.docx

Grammar

Relative Pronouns

Lesson Plans\Lesson Plan 4 Pronouns.docx

Sentence Types

Lesson Plans\Lesson Plan 5 Kinds of Sentences.docx

Cataphoric Reference

Lesson Plans\Lesson Plan 6 Cataphoric and Anaphoric Reference.docx

Writing Skills

Answer the following questions.

i) Describe the person who had come out of the aeroplane at Mauripur, Karachi.

ii) Why did the crowd roar in one voice, 'Pakistan Zindabad!'?

Choose the correct option i.e. A, B, C or D in the following sentences.

i. The Quaid-e-Azam landed at the airport of Mauripur, Karachi on August 7,
(A) 1943 (B) 1945 (C) 1947 (D) 1949

ii. The Quaid-e-Azam was wearing a pure Sherwani.
(A) black (B) white (C) brown (D) red

iii. Everyman pushed forward to the Quaid.
(A) meet (B) see (C) welcome (D) see off

iv. Quaid-e-Azam was the of Pakistan.

(A) maker (B) discoverer (C) founder (D) inventor

v. The first Governor General of Pakistan was

(A) M.A. Jinnah (B) Lord Mountbatten (C) Liaqat Ali Khan (D) None of these

Lesson Plans\Lesson Plan 28 Answer the following Questions given in the English 9 2014-15 by PTB Lahore.docx

Translate into idiomatic Urdu.

It was August 7, 1947, when a silver aircraft circled over the airport at Mauripur, Karachi. It was watched by a vast, excited crowd while smoothly landing. First to step out of the aeroplane was a tall and dignified man wearing a pure white Sherwani. As soon as he appeared the whole crowd roared with one voice, 'Pakistan Zindabad! Pakistan Zindabad!' And every man pushed forward to welcome him, to get as close to him as possible in order to see him clearly. For here was their great leader, Quaid-e-Azam, the founder and the first Governor General of their new country. Here was their leader who had won Pakistan for them Muhammad Ali Jinnah.

Lesson Plans\Lesson Plan 3 Translating a Paragraph into Idiomatic Urdu, Meanings and.docx

Day: 4th, 5th, 6th

Part 2

Recording 3.2

Page 26

Unit 3

QUAID -- A GREAT LEADER

John Walton

Paragraph 3

The Quaid showed no signs of his feelings. He rarely did so. If he felt pride or joy in what he had done, he did not let anybody see it. Through all the excitement of those first days in the life of the young nation, the man who had made it possible remained calm, serious and sober. Perhaps he was thinking of the millions of people who had become homeless when India and Pakistan became separate countries. Perhaps he was thinking of the thousands who were being attacked and killed on the roads and railways as they tried to reach their homeland. There was much in those days of violence to sadden Jinnah, who was a man of very strong feelings, although he so rarely showed it. Yet those who were close to him on Independence Day sometimes saw for a few moments a happier man. Once he went to the balcony of the Government House, from where he could see without being seen and as he looked on the crowd still cheering in the streets outside, he smiled. In that smile could be seen the warm hearted man behind the stern Quaid-e-Azam.

Reading and Thinking Skills (Listen/Watch and Read)

Listening Portion of KP Textbook\Page 26 Unit 3 QUAID -- A GREAT LEADER Paragraph 3.mp3

Lexical Aspects of Language

Vocabulary

Glossary

Lesson Plans\Lesson Plan 27 Vocabulary Textbook of English Grade-IX by KPTB Peshawar.docx

Grammar

Relative Pronouns

Lesson Plans\Lesson Plan 4 Pronouns.docx

Sentence Types

Writing Skills

Answer the following questions.

Comprehension Questions

iii) Why had people become homeless?

Choose the correct option i.e. A, B, C or D in the following sentence.

vi. There was much in those days of violence to Jinnah.

(A) delight (B) frighten (C) sadden (D) surprise

vii. Once, the Quaid went to the of the Government House and looked on the crowd still cheering.

Day: 7th, 8th, 9th

Part 3

Recording 3.3

Page 26

Unit 3

QUAID -- A GREAT LEADER

John Walton

Paragraph 4

Muhammad Ali Jinnah was at this time tired and far from well, but he had the satisfaction of knowing that the greater part of his work was done. By the force of his determination and leadership, a people who had once been a small defeated group, with little to hope for, in an empire ruled by a foreign power, had become the greatest of the Muslim States and the 5th largest nation in the world. Seventy million people, who once had no country to call their own, had become a nation -- with great ideals and a great faith. A few days after he landed in Karachi, Muhammad Ali Jinnah told his people, "You are free to go to your temples; you are free to go to your mosques or to any other place of worship in this state of Pakistan.

Who were the people whom the writer calls 'a small defeated group'?

Paragraph 5

You may belong to any religion or caste --- we are all citizens of one state".

He was, of course reminding them of the Prophet's teaching that all men are equal in the eyes of Allah.

Reading and Thinking Skills (Listen/Watch and Read)

Listening Portion of KP Textbook\Page 26 Unit 3 QUAID -- A GREAT LEADER Paragraph 4 and 5.mp3

Pronunciation

Intonation

Lesson Plans\Lesson Plan 2 Dictionary Skills, Pronunciation, Syllable, Stress, Inton.docx

Oral Communication Skills

i. Discuss in groups the qualities of a good student?

- ii. Discuss in groups the qualities of a good citizen?
- iii. Discuss in groups the qualities of a good leader?

Lesson Plans\Lesson Plan 7 Discussion, Express satisfaction, Role Play and Interview.docx

Writing Skills

Answer the following questions.

- iv) Why did the Quaid-e-Azam look satisfied?
- v) Name the 5th largest nation of the world.
- vi) How much was Pakistan's population at the time of Independence?
- vii) What did the Quaid-e-Azam tell the people about equal rights?
Choose the correct option i.e. A, B, C or D in the following sentence.
- viii. About million people had become a nation -- with great ideals and a great faith.
(A) fifty (B) sixty (C) seventy (D) eighty
- ix. The Quaid was reminding the people of the Prophet's teaching that all are equal in the eyes of Allah.
(A) Christians (B) citizens (C) men (D) Hindus

Lesson Plans\Lesson Plan 28 Answer the following Questions given in the English 9 2014-15 by PTB Lahore.docx

Write an essay on your favourite/ideal personality.

Lesson Plans\Lesson Plan 8 Writing Essay and Paragraph and Proof Reading.docx

Day: 10th, 11th, 12th

Recording 14

Page 128

Unit 14

THE DAFFODILS (KPTB Peshawar)

William Wordsworth

(1770-1850)

Line Number 1 to 6

I wandered lonely as a cloud
That floats on high o'er vales and hills,
When all at once I saw a crowd,
A host, of golden daffodils,
Beside the lake, beneath the trees,
Fluttering and dancing in the breeze

Line Number 7 to 12

Continuous as the stars that shine
And twinkle on the Milky Way,
They stretch in a never-ending line
Along the margin of a bay:
Ten thousand saw I at a glance,
Tossing their heads in sprightly dance

Line Number 13 to 18

The waves beside them danced: but they
Outdid the sparkling waves in glee;
A poet could not but be gay,
In such a jocund company;
I gazed-and gazed-but little thought
What wealth the show to me had brought

Line Number 19 to 24

For oft, when on my couch I lie
In vacant or in pensive mood,
They flash upon that inward eye
Which is the bliss of solitude;
And then my heart with pleasure fills,
And dances with the daffodils

Reading and Thinking Skills (Listen/Watch and Read)

D:\Presentation for Modules Approval\Textbook of English Grade-IX by KPTB Peshawar\Listening Portion of KP Textbook\Page 128 Unit 14 THE DAFFODILS.mp3

Simile and Metaphor

D:\Presentation for Modules Approval\Textbook of English Grade-IX by KPTB Peshawar\Lesson Plans\Lesson Plan 20 Figures of Speech.docx

Lexical Aspects of Language

Vocabulary

Glossary

MCQs (i), (ii), (iii)

Lesson Plans\Lesson Plan 27 Vocabulary Textbook of English Grade-IX by KPTB Peshawar.docx

Grammar

Interjection and Conjunction

D:\Presentation for Modules Approval\Textbook of English Grade-IX by KPTB Peshawar\Lesson Plans\Lesson Plan 22 Conjunction and Interjection.docx

Oral Communication Skills

“A thing of beauty is a joy forever”. Share your ideas on any such memory related with nature.

D:\Presentation for Modules Approval\Textbook of English Grade-IX by KPTB Peshawar\Lesson Plans\Lesson Plan 7 Discussion, Express satisfaction, Role Play and Interview.docx

Writing Skills

Answer the following questions.

- i) When did the poet see a crowd?
- ii) What does ‘crowd’ exactly mean?
- iii) Which word has the poet used in the second stanza for comparison of the daffodils with the stars?
- iv) What is the bliss of solitude?
- v) The last line is ‘And dances with the daffodils’. Who do you think is dancing?
- vi) Which line in the poem shows that the poet was constantly looking at the daffodils?
- vii) Do you think the poet cherishes the time spent in the company of the daffodils?
- viii) Write down the account of your recent visit to a natural resort.

Lesson Plans\Lesson Plan 28 Answer the following Questions given in the English 9 2014-15 by PTB Lahore.docx

Writing Summary of Poem

Write the summary of the poem.

Paraphrase first and third stanzas of the poem.

Day: 13th, 14th, 15th, 16th, 17th

Recording 5

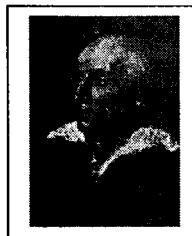
Page 50

Unit 5

THE DAFFODILS (Punjab TBB)

William Wordsworth

(1770-1850)



Line Number 1 to 6

I wandered lonely as a cloud
That floats on high o'er vales and hills,
When all at once I saw a crowd,
A host, of golden daffodils,
Beside the lake, beneath the trees,
Fluttering and dancing in the breeze

Line Number 7 to 12

Continuous as the stars that shine
And twinkle on the Milky Way,
They stretch in a never-ending line
Along the margin of a bay:
Ten thousand saw I at a glance,
Tossing their heads in sprightly dance

Line Number 13 to 18

The waves beside them danced: but they
Outdid the sparkling waves in glee;
A poet could not but be gay,
In such a jocund company;
I gazed-and gazed-but little thought
What wealth the show to me had brought(18)

Line Number 19 to 24

For oft, when on my couch I lie
In vacant or in pensive mood,
They flash upon that inward eye
Which is the bliss of solitude;
And then my heart with pleasure fills,
And dances with the daffodils

Reading and Thinking Skills (Listen/Watch and Read)

D:\Presentation for Modules Approval\English 9 2014-15 by PTB Lahore\English 9 by PTB Lahore Audios\Unit 5 Daffodils by PTB Lahore.mp3

Figures of Speech

In "Daffodils" similes are used in stanzas 1 and 2. Can you tell what two things are compared to in each of these stanzas?

Pick out one example of personification from the poem.

Here is a list of few Similes, Metaphors and Personifications. Can you identify them? Write 'S' for Simile, 'M' for Metaphor and 'P' for Personification.

Underline the words and phrases that depict clear imagery in the poem.

Which imagery the poet refers to in the poem?

Lesson Plans\Lesson Plan 20 Figures of Speech.docx

Lexical Aspects of Language

Vocabulary

Glossary

Lesson Plans\Lesson Plan 27 Vocabulary English 9 2014-15 by PTB Lahore.docx

Synonyms

Use a thesaurus to find three more synonyms of the following words.

Lesson Plans\Lesson Plan 15 Word Family, Prefixes, Suffixes, Compound Words, Antonym.docx

Connotation

Specify positive and negative connotation

Lesson Plans\Lesson Plan 26 Connotation and Denotation.docx

Grammar

Nouns

Collective Nouns

Lesson Plans\Lesson Plan 18 Nouns, Noun Phrase, Noun Clause.docx

Prepositions

Underline prepositions of place in the poem.

Use the following prepositions in sentences of your own.

Lesson Plans\Lesson Plan 10 Preposition, Prepositional Phrase.docx

Conjunctions

Fill in the blanks with appropriate conjunctions.

Use any five coordinating conjunctions and any five subordinating conjunctions in sentences of your own.

Lesson Plans\Lesson Plan 22 Conjunction and Interjection.docx

Verbs

Underline the Participles in the following sentences.

Make five sentences using Present Participles and five sentences using Past Participles.

Lesson Plans\Lesson Plan 13 Verbs, Modal Verbs, Infinitives, Gerund, Participles.docx

Oral Communication Skills

Form groups and discuss the following.

- What you have understood and what you think is the message in the poem?
- Discuss various aspects of nature as described in the poem.
- Work in pairs to prepare a presentation on the topic of "Daffodils". In your presentation, read Wordsworth's poem aloud to the class and explain your feelings.

Role Play

Use the language of satisfaction and dissatisfaction and act out role plays on the following situations.

1. Father is dissatisfied with the performance of his son in the matriculation exam. However, the son shows satisfaction over his result.
2. You are satisfied with your performance in the debates. Your teacher however expresses dissatisfaction and asks you to improve your presentation skills.

3. Your friend is satisfied in getting cricket match tickets. On the contrary, you express dissatisfaction on the types of seats allotted to you in the stadium.

Lesson Plans\Lesson Plan 7 Discussion, Express satisfaction, Role Play and Interview.docx

Writing Skills

Answer the following questions.

1. What is the central idea of the poem?
2. What do the daffodils represent in the poem?
3. What "wealth" do memories of the scene give to the poet?
4. List the words that heighten the sound effect in the poem.
5. How has the poet heightened the impact of the poem by using the figurative language?

Lesson Plans\Lesson Plan 28 Comprehension Questions given in the English 9 2014-15 by PTB Lahore.docx

Paraphrasing

Paraphrase the last stanza of the poem.

Summary of the Poem

Write a summary of the poem "Daffodils".

Lesson Plans\Lesson Plan 21 Writing Summary of Poem, Paraphrase of Stanzas.docx

Day: 18th, 19th, 20th

Part 1

Recording 6.1

Page 62

Unit 6

The Quaid's Vision and Pakistan (Punjab TBB)

Paragraph 1

During the early and difficult times of Pakistan's emergence, Quaid-e-Azam Muhammad Ali Jinnah, undertook a countrywide tour. He aimed at raising people's spirit.

"Do not be overwhelmed by the enormity of the task", he said in a speech at Lahore, "There are many examples in the history of young nations building themselves up by sheer determination and force of character. You are made of sterling material and second to none. Keep up your morale. Do not be afraid of death. We should face it bravely to save the honour of Pakistan and of Islam. Do your duty and have faith in Pakistan. It has come to stay."

Paragraph 2

The whole journey of the great leader's struggle for a separate homeland for the Muslims of the subcontinent was based on the pivot of the Muslim unity and oneness as a nation. He talked about Pakistan in such clear terms that a common man could understand it.

"We are a nation," he affirmed three years before the birth of Pakistan, "with our own distinctive culture and civilization, language and literature, art and architecture, names and nomenclature, sense of values and proportion, legal laws and moral codes, custom and calendar, history and tradition, aptitude and ambitions — in short, we have our own distinctive outlook on life."

Reading and Thinking Skills (Listen/Watch and Read)

D:\Presentation for Modules Approval\English 9 2014-15 by PTB Lahore\English 9 by PTB Lahore Audios\Unit 6 The Quaid's Vision Paragraph 1 to 2.mp3

Lexical Aspects of Language

Vocabulary

Glossary

Lesson Plans\Lesson Plan 27 Vocabulary English 9 2014-15 by PTB Lahore.docx

Writing Skills

Answer the following questions.

1. How much confidence did Quaid-e-Azam have in his nation?
2. What was the Quaid's concept of our nation?

Lesson Plans\Lesson Plan 28 Comprehension Questions given in the English 9 2014-15 by PTB Lahore.docx

Day 21st, 22nd, 23rd, 24th

Part 2

Recording 6.2

Page 62

Unit 6

The Quaid's Vision and Pakistan

Paragraph 3

The ideology of Pakistan was based on the fundamental principle that the Muslims are an independent nation. Any attempt to get them merge their national and political identity will be strongly resisted.

Paragraph 4

Quaid-e-Azam was a man of strong faith and belief. He firmly believed that the new emerging state of Pakistan based on Islamic principles would reform the society as a whole. In his Eid message, September 1945, Quaid-e-Azam said, "Islam is a complete code regulating the whole Muslim society, every department of life collectively and individually".

Paragraph 5

Today the Quaid's Pakistan is facing numerous challenges. We have forgotten how much struggle Muslims had made under the dynamic leadership of Quaid-e-Azam Muhammad Ali Jinnah. We can overcome our present difficulties by following the Quaid's golden motto, "Faith, Unity and Discipline". We can make our nation strong by remembering his advice to the youth, "It is now up to you to work, work and work; and we are bound to succeed."

Reading and Thinking Skills (Listen/Watch and Read)

D:\Presentation for Modules Approval\English 9 2014-15 by PTB Lahore\English 9 by PTB Lahore Audios\Unit 6 The Quaid's Vision Paragraph 3 to 5.mp3

Lexical Aspects of Language

Vocabulary

Glossary

Encircle the option for the underlined words that relates to the text.

Use the following idioms in sentences.

Lesson Plans\Lesson Plan 27 Vocabulary English 9 2014-15 by PTB Lahore.docx

Consult a thesaurus and find the synonyms of the following words.

Write the antonyms of the following words.

Lesson Plans\Lesson Plan 15 Word Family, Prefixes, Suffixes, Compound Words, Antonym.docx

For each of the words given in the column, give one similar meaning (denotation) and one negative and positive connotation.

Lesson Plans\Lesson Plan 26 Connotation and Denotation.docx

Grammar

Adverb

Find the kinds of adverbs in the lesson.

Write five sentences using adverbs of manner, place and time in correct sequence.

[Lesson Plans\Lesson Plan 9 Adverb, Adverb Phrase, Adverb Clause.docx](#)

Infinitives

Make sentences using the following verbs followed by infinitives.

Gerunds

Complete these phrases by adding gerunds and use them in sentences.

[Lesson Plans\Lesson Plan 13 Verbs, Modal Verbs, Infinitives, Gerund, Participles.docx](#)

Conditionals

Complete the following conditionals.

[Lesson Plans\Lesson Plan 30 Conditionals.docx](#)

Tenses

Write ten sentences using Past Perfect Tense.

[Lesson Plans\Lesson Plan 12 Tenses, Present and Past Perfect Continuous Tenses.docx](#)

Pronunciation

Identify the primary and secondary stress in the following words.

[Lesson Plans\Lesson Plan 2 Dictionary Skills, Pronunciation, Syllable, Stress, Inton.docx](#)

Oral Communication Skills

Discuss the following in groups.

- Why did Quaid-e-Azam ignore his ever failing health?
- Why did he wish for a complete harmony and unity among the people of Pakistan?
- What can be the outcome of ignoring the Quaid's advice?

[Lesson Plans\Lesson Plan 7 Discussion, Express satisfaction, Role Play and Interview.docx](#)

Conversation

Between a young man and a policeman

[Lesson Plans\Lesson Plan 31 Conversation.docx](#)

Writing Skills

Answer the following questions.

3. What was the ideology of Pakistan in view of Quaid-e-Azam?
4. What can be the possible solution to our present problems?
5. How can we become a strong nation?

[Lesson Plans\Lesson Plan 28 Comprehension Questions given in the English 9 2014-15 by PTB Lahore.docx](#)

Writing Paragraph/Essay

Write a paragraph on Quaid-e-Azam as a progressive and moderate democrat. (60-70 words)

Write an essay on "Quaid-e-Azam - Our National Hero" with the help of following mind map.

[Lesson Plans\Lesson Plan 8 Writing Essay and Paragraph and Proof Reading.docx](#)

Appendix-AK

List of Websites Used for English Language Learning

- <http://www.naturalreaders.com/>
- <http://englishtourdudictionary.comnet.pk/intonation.htm>
- <http://www.englishtourdutranslation.pk>
- <http://translate.google.com>
- <http://imtranslator.net>
- <http://www.poemhunter.com/poems/>
- <http://www.poetryfoundation.org/features/video/281>
- <http://aboutenglishlanguage.com/>
- <http://www.bbc.co.uk/worldservice/learningenglish/language/>
- <http://learnenglish.britishcouncil.org/en/writing>
- <https://www.usalearns.org>
- <https://www.worldenglishinstitute.org>
- <http://grammar.yourdictionary.com/>
- <http://englishtourdudictionary.comnet.pk/intonation.htm>
- <http://www.englishtourdutranslation.pk>
- <http://imtranslator.net>
- <http://translator.babylon.com/?trid=BHTTRNSBTNEN>
- <http://aboutenglishlanguage.com/>
- <http://www.englishpage.com/verbpage/presentcontinuous.html>
- http://www.esl.net/software_schools.html
- <http://gamestolearnenglish.com/>
- www.FreeTech4Teachers.com
- <http://gotest.pk>

- <http://www.ict4lt.org/en/>
- http://www.ict4lt.org/en/en_resource.htm
- <http://www.oxfordlearnersdictionaries.com/definition/english/apple>
- <http://www.readwritethink.org/>
- <http://www.solki.jyu.fi/tallent/english.htm>
- <http://thesaurus.com/browse/blueprint>
- <http://www.usingenglish.com/quizzes/95.html>
- <http://www.writeexpress.com/>
- <http://library.bcu.ac.uk/learner/Writing%20index.htm>
- <http://library.bcu.ac.uk/learner/writingguides/1.06.htm>

