

IMPACT OF TECHNOLOGY ON THE BUSINESS WRITING OF LEARNERS IN THE SECOND LANGUAGE CONTEXT IN PAKISTAN

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ABSTRACT

This research aims to study the impact of technology on enhancing the business writing skills of learners in the second language (L2) context. The paper explores the role of modern technology in teaching and learning of the target language at the educational institutions in Pakistan. It also studies how technology can interfere and / or enhance achieving the academic writing competencies of the young learners especially at the higher education level. The literature analyzes and compares the use of technology and its implications not only in Pakistan but also in other countries where L1 and L2 are coexisting and mastering L2 is essential for business writing. Employing the experimental research design, control group and experimental group were used to study the causal relationship between the dependent and independent variables. The results establish that experimental group showed considerable improvement in language acquisition because technology was used as a tool for teaching and learning in a classroom setting. On the contrary, the control group was taught using the traditional method, which was not as effective. The study recommends and emphasizes the use of technology in a language-learning classroom at the higher education level as well as at the tertiary level, because it can foster proficiency in acquiring competence in business writing in the second language context.

Key words: business writing, technology, writing competence, second language, experimental research

Introduction

This research aims to study the impact of technology on the business writing of learners in the second language (L2) context in Pakistan. The study shall explore the role of modern technology in teaching and learning of the target language at the educational institutions in Pakistan. It studies how technology can interfere and enhance the business writing competencies of the learners. The results help provide recommendations that can foster proficiency in learning English as a second language in Pakistan.

1.1 Statement of the problem

Achieving competence in writing is critical for language learners in Pakistan where the linguistic fabric of the society is marked by multiple challenges such as multilingualism, limited educational infrastructure, poor equipment, first language interference and dual mediums of instruction in the public and private sector institutions. Some technology-based tools are being used in Pakistani universities, with mixed results in language acquisition (Safdar, et. Al. 2012) but students still face challenges in writing coherently for academic purposes. Despite the Gallup (2014) survey reporting a significant penetration of technology in the country and that technology is vital for educational development (Safdar, et.al, 2012), it has been seen that university students struggle to produce quality academic papers. This lacking in achieving writing competence has implications for professional excellence challenges for the young graduates in their careers. Globally, technology is being adopted for teaching, new technologies such as overhead projectors, interactive whiteboards, laptop computers and wireless internet have opened up the classroom to the outside world. Technologies have begun to change the way that English is learned in the classroom. Learning English through mobile devices gains credibility every day. In this scenario it is important to inquire how technology can help achieve proficiency in business writing in the universities of Pakistan to address the key problems in achieving linguistic proficiency at the university level.

1.2 Research questions

- i. What is the role of technology in achieving competence in business writing in the second language context for university students in Pakistan?
- ii. How can technology enhance coherent and cohesive writing in the second language context for university students in Pakistan?

1.3 Significance and scope of the research

This study inquires the role of technology in achieving proficiency in business writing of learners in the educational institutions of Pakistan. The results of this research are significant for revising the course plans, introducing and using technology responsibly in the educational institutions and creating knowledge in this regard. It shall be useful for educationists, administrators, professional organizations as well as learners. Language teachers and educationists will be able to receive guidance from this research in helping create a more enabling learning environment in the classroom setting, which will foster effective language acquisition by the learners in the educational institutions of Pakistan.

1.4 Limitations and delimitations

There is a potential risk of researcher's bias in analyzing findings of the data collected through the observation method. The research is based on a small sample collected from the University of Central Punjab only. Data has not been collected widely because the experimental method has been used and including wider numbers was not within the scope of the study.

1.5 Organization of the paper

The rest of the paper includes a review of the literature particularly looking at the use of technology and what benefits are drawn from it where it has been employed. Next, it includes the methodology, which has been used for this research. This is followed by the discussion of the findings and finally it suggests solutions for the resultant conclusions.

Literature Review

This section critically reviews the available recent literature and identifies the gap between existing researches especially in the case of Pakistan.

2.1 Use of Technology in business writing-context and background

English language plays a significant role in Pakistan being the language of the elite, the government, higher education, the military forces, corporate business, diplomacy and international trade (Coleman & Capstick, 2010). Within the current scenario where Pakistanis have limited exposure to the other global languages, English acts as the primary medium of communication with the rest of the world for the people of Pakistan.

Achieving proficiency in English language is important, because the language has established its position as the global 'lingua franca' Mauranen, (2009). According to the results of a survey conducted by Mansoor (2003), a high majority of students (male/female) from the private and public sector institutions prefer English language compared to other languages for the purpose of higher education and employment. Similarly, Coleman (2010) writes in the report for British Council that English is a formal requirement for the people of Pakistan in order to enable them to seek a white collared employment. It is, therefore, a requirement for the learners to develop competency in input as well as output skills of the language.

Developing competence in writing skills is a huge challenge for young learners as it is the most complex of all language skills to learn for college students (Irvin, 2010 & Badi, 2015). The complexity of a writing task emerges from idea generation, drafting and organization of thoughts, lack of reading and understanding texts, and academic/business jargon (Itua, Coffey, Merryweather, Norton & Foxcroft, 2014). More so, in the second language context, choice of appropriate words, grammatical excellence and syntax add to the complexity. Published literature shows some positive results in overcoming these barriers by introducing latest upgraded tools of teaching and learning in the classroom situation (Fernsten & Reda, 2011).

Technology integration is an important tool for improved writing competence. Solanki favors the use of technology especially multi-media in the language classrooms for better student engagement and effective learning (2012). "Multimedia ... makes the class lively and interesting ... Multimedia has its own features such as visibility and liveliness" points out Solanki (2012). According to Pew Research Center's report, "Digital tools encourage students to be more invested in their writing by encouraging personal expression and providing a wider audience for their work. Most [teachers] also say digital tools make teaching writing easier" (Purcell, Buchanan, Friedrich, 2013). Further researchers like Gillespie (2006) and Murphy (2006) also support the use of technology while Boas emphasizes that the use of technology in teaching Process Writing Approach using computers is far more engaging for the learners (2011).

In Pakistan, writing cohesively and producing cohesive and coherent academic papers is a critical problem despite the introduction and usage of technology at the tertiary and higher education level. The barriers in using technology in achieving competence in writing stem from challenges in the technology infrastructure as well as the need for developing cognitive ability among the students. In Pakistani universities, the key challenges in achieving writing competence also lie in the issues of mixed ability classrooms due to multilingual complexity and linguistic diversity (Mansoor, 2003 & Rehman, 2002). Limitations of technology infrastructure including availability and maintenance of latest equipment, hard ware and software further add to the less than optimal results in achieving writing competency.

There is limited published research available in Pakistan, which can help understand the role of technology-based teaching methodologies for achieving results in coherent writing. In order to understand how technology can help improve writing competencies of young learners, there is need to produce more knowledge products that can lay down the foundations for devising better teaching methodologies for fostering business writing competencies.

Research Methodology

Experimental research design has been adopted for this empirical study. This research design has been employed to study the impact of technology usage in teaching/learning the target language between the experimental and control groups. Primary data has been collected through the observation method of data collection to ascertain and evaluate the role of technology in obtaining writing proficiency in the target population. Using the qualitative / interpretivist paradigm, the researcher adopted the inductive approach to analyze the results and compare the level of proficiency acquired by the control and experimental groups. The results are reported through descriptive analysis.

3.1 Data Collection Method

This study collects data employing the observation method. Direct and indirect observations continued over a span of 4 months, September – February. The selected population was divided into two groups, A and B. Section A, the control group was taught following the traditional method which included lectures, discussions, questions/answers, handouts, collective reading strategies, and chalk and board. Few lectures were also delivered in Section A, the control group, using powerpoint presentations but no computers were used for in-class assignments.

Section B, on the other hand, was experimented with technology, such as, powerpoint presentations, personal desktop computers and mobile gadgets. Section B, the experimental group was also given handouts for ready reference in some classes.

Both sections, A and B, were taught same content and they were assessed on similar assignments. The assessment weightages were also similar. Sections A and B were also given pre and post tests to determine their level of proficiency in the target language.

3.2 Sample

The target population for the qualitative study includes 25 students from the private sector university. These students are enrolled in the MBA program at the University of Central Punjab. The selected sample has been divided into two sections, A and B. Section A comprises of 13 students; 9 male and 4 female students. Section B is composed of 12 students; 10 male and 2 female students. Section A is the control group and Section B is used as the experimental group.

3.3 Research Tools

Four different tools have been used to collect the data from the experimental and control groups. They include:

1. Class assignments – both control and experimental groups were given 6 assignment each
2. Quizzes – experimental and control groups were given 2 quizzes each
3. Mid Term Exam – experimental and control groups were tested on the same Mid Term Exam after completing 8 weeks of classes
4. Project – experimental and control groups were assigned projects individually

Table 1:

Research Tools	Total number
1. Assignments	6
2. Quizzes	2
3. Project	1
4. Mid Term Exam	1

Section A submitted hand written assignments, whereas Section B submitted computer based assignments. Section A and Section B were constantly observed for their level of interest, understanding, comprehension and involvement along with their performance in class and home assignments, quizzes, project, Mid and Final Term Exams. The detail of the observations is given in Section 4.

3.4 Principles of Ethics

Principles of ethics were integrated into the research design, data collection and data analysis. The respondents’ needs for anonymity were totally respected. Where pictorial images were taken, the same were based on prior informed consent. Since the study was conducted in an educational institution, it is very important that the research work was conducted in an ethically and socially appropriate manner.

Data Representation

The data collected through the observation method is represented and discussed in detail in this section. This section gives the detail of the data collected from the control and experimental groups separately. Data is also facilitated by graphs and pictures from real class rooms.

4.1 Constant Factors in Experimental and Control groups

Both experimental and control groups were given 28 lectures by the same course instructor and both groups were assessed on similar assignments, quizzes, mid and final term exams. They were constantly observed for their level of interest, understanding, comprehension and involvement. Each lecture was 1.5 hours long and each class was designed following the 4 stages of lesson planning: pre stage, while stage, post stage, and the follow up stage for Section A, the control group and Section B, the experimental group.

4.2 Variant factors in experimental and control groups

The factors which were not constant in the experimental and control groups were the number of students in each group. There were 19 students in the control group but there were only 8 students in the experimental group because the experiment was done on a smaller population initially which could be generalized on larger numbers if the findings showed positive results. Secondly, teaching methodology was different in the experimental and control groups because the experimental group was tested with technology employed teaching methods; such as, power point presentations, collective in-class reading on *moodle*, in-class research and writing on personal computers. On the other hand, traditional teaching used lectures, discussions, questions/answers, handouts, collective reading strategies, and chalk and board.

Table 2:
Constant and Variant factors in experimental and control groups

Factors	Experimental group	Control Group
Number of lectures	28 lectures	28 lectures
Assessment items	Assignments, Quizzes, Mid & Final Term Exams	Assignments, Quizzes, Mid & Final Term Exams
Duration of lectures	1.5 hour/lecture	1.5 hour/lecture
Lesson plans	Pre, while, post and follow up stages	Pre, while, post and follow up stages
Student engagement	Level of interest, understanding, comprehension and involvement	Level of interest, understanding, comprehension and involvement
Number of students	8 students	19 students
Teaching methodology	Technology employed teaching methods	Traditional methods of teaching
Collective in-class reading	Computers	Handouts
In-class assignments, quizzes	Computer based	Hand written

4.3 Data collected through control group

The control group, Section A, was composed of 19 students from MBA program (3 credit hour) at the University of Central Punjab. Section A was observed for 4 months.

The control group was taught academic and business writing. The subjects wrote several drafts of the assignments using the process writing approach. They worked throughout the semester in groups and also individually. The classes were conducted following structured lesson plans. It was observed that students were partially attentive during the pre and while stages. Listening to lectures was found less engaging for the students. The level of distraction was higher which included looking out of the window.

However, their level of interest slightly improved in the post stage for above average students as they were now involved in language production or actively taking up the writing task. The average and below average students found post stage even more taxing because they are weak in linguistic skills. Looking for vocabulary, idea generation and ordering thoughts was not easy for these students. The course instructor took rounds and helped these students; which partially charged them. Figure 1 clearly shows their level of interest during the in-class writing activity.



Figure 1: Student involvement in traditional writing class room

The assessment of the class assignments, quizzes and mid and final term exams shows that due to less involvement in their work, the subjects were not able to score well. The graph in Figure 2 shows their performance on assignments. The graph shows the percentage values out of 20%. There were 6 assignments and each assignment was for 10 marks.

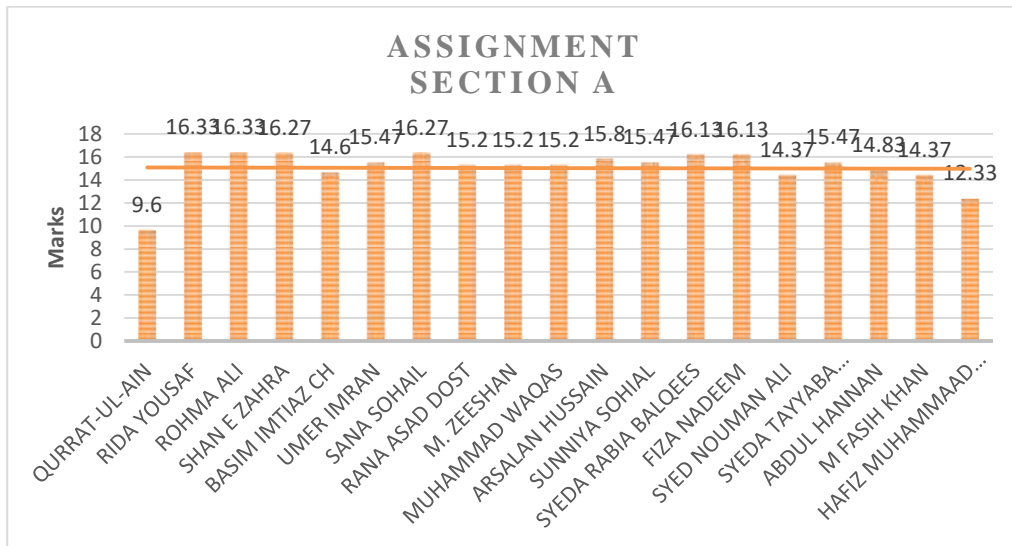


Figure 2: Assignments-Section A

The assessment of 2 quizzes shows 70% students scored above average marks only 3 students scored critically below average. The quizzes were scored out of 5% of total weightage.

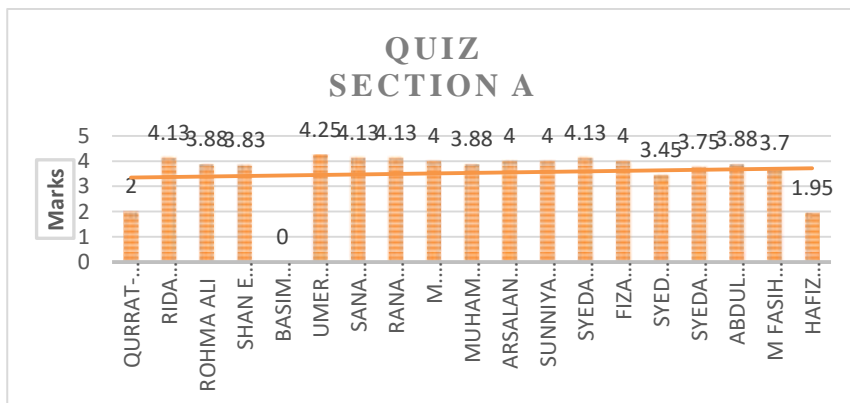


Figure 3: Quiz results - Section A

The Mid Term Exam carries 20% weightage and this can be seen that students have not been able to perform well as their scores mostly fall between 10% to 15% weighted averages.

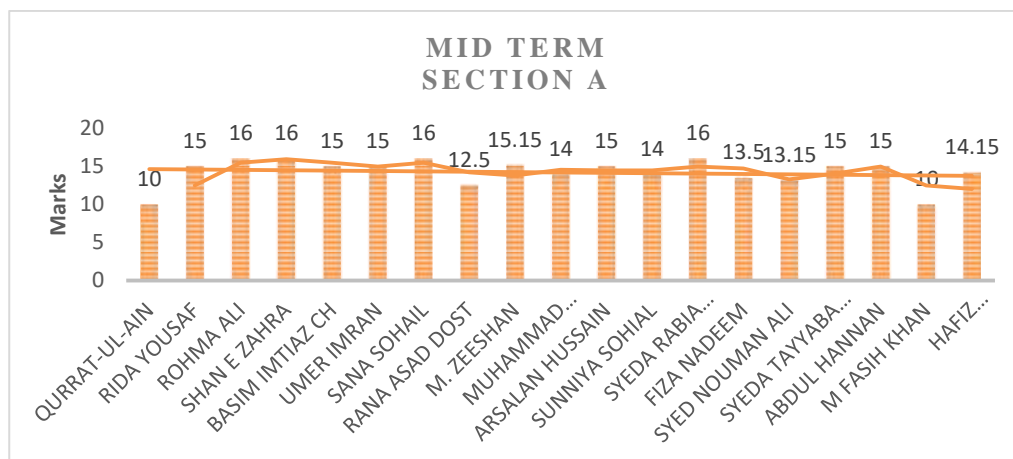


Figure 4: Mid Term Exam-Section A

Similarly in case of the final project the average scores ranged between 10%-12% out of 15% weightage. Only few scored above 12% marks.

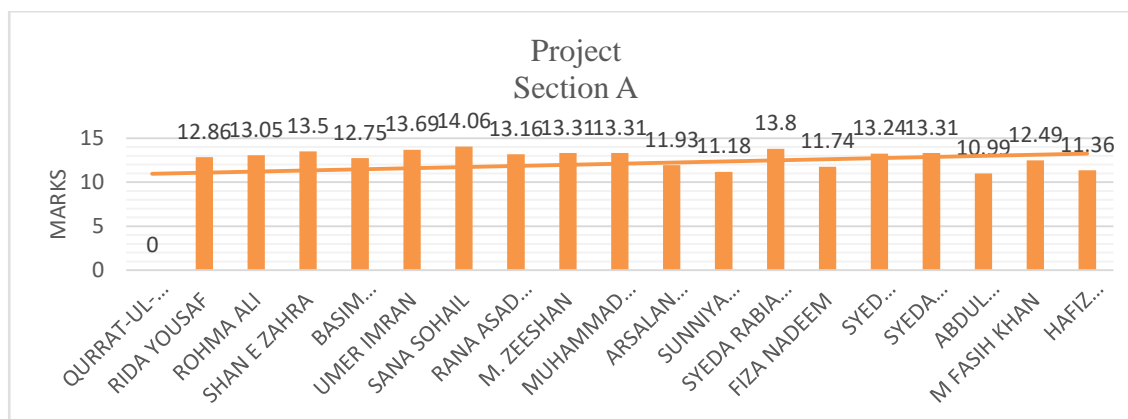


Figure 5: Project- Section A

The pictorial reference of the hand written assignments shows the language proficiency of the students. The instructor marked these assignments and corrections were done for students' benefit. The below average performance in Figure 5 also shows the level of motivation and interest of marginal students.

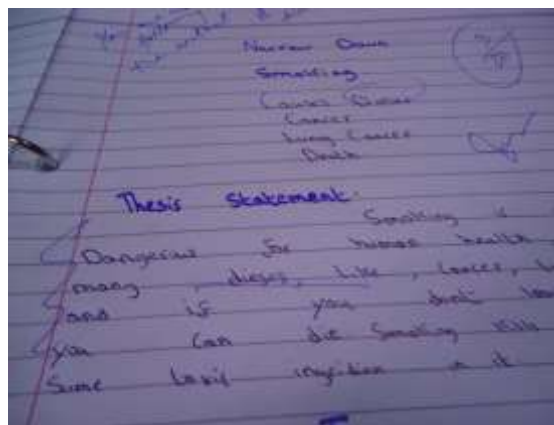
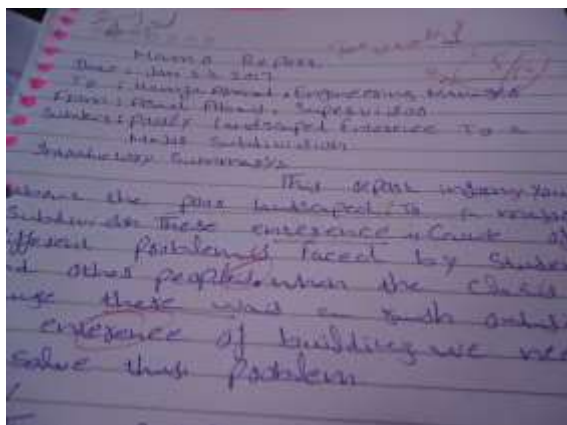


Figure 6: Hand written language production activity-Section A

4.4 Data collected through experimental group

Section B, on the other hand, was composed of 20 students who are enrolled in MBA program at the University of Central Punjab. Section B was also observed for 4 months. The lectures delivered in this section were based on power point presentations. Collective reading was done on *moodle* and each participant used a personal computer to do in-class assessments. Students were observed to be absolutely engrossed in reading on their personal computer screens. They were even observed reading eagerly and proactively. The lessons were planned just as they were planned for Section A; pre stage, while stage, post and follow up stages. As against the Section A observation results, Section B were found more interested in all the stages as they were using technology on the go. The level of interest of 70% participants, in the post stage was huge as they were asked to work on their PCs. This grabbed their attention completely.



Figure 7: Student involvement in the technology based class room

In the experimental group, the assessment of the class assignments, quizzes and mid and final term exams shows that students were engaged in active participation as they were using personalized computers in the classroom. The graph in Figure 8 shows their performance in the class assignments.

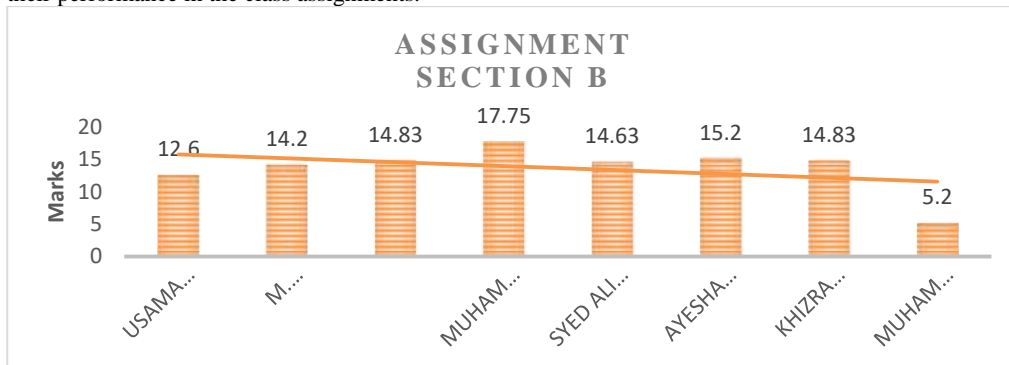


Figure 8: Assignment - Section B

The performance of the experimental group in the quizzes is shown in Figure 9. The graph shows consistency in the results. The marks ranged between 3.45% to 3.83%. There is only one student with 0% marks because he missed both his quizzes.

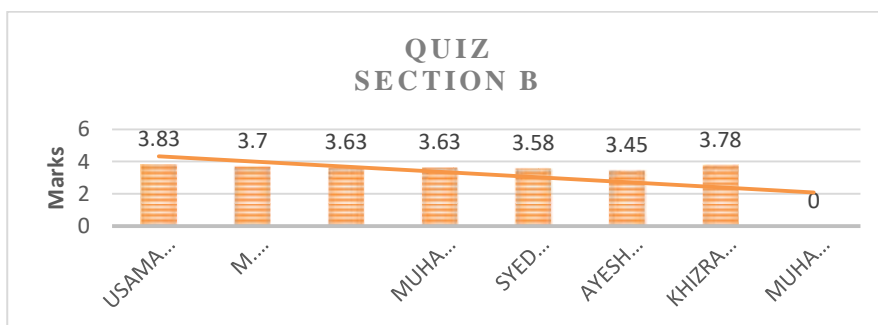


Figure 9: Quizzes - Section B

The graph in Figure 10 again shows consistency in results as there is no student who failed the mid term exam.

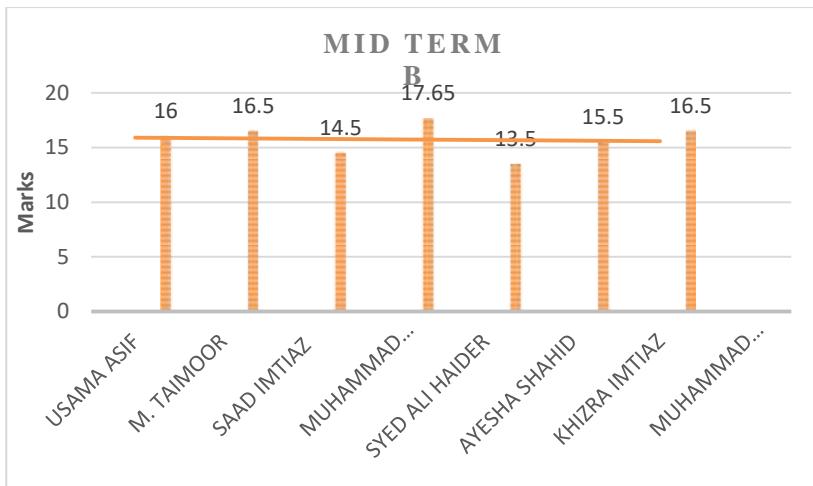


Figure 10: Mid Term Exam-Section B

For the final term project, the scores ranged between 11% to 13.5% marks out of 15% total weightage. Only one student scored 10% marks and one student did not opt for the project due to personal reasons. The results are graphically represented in Figure 11.

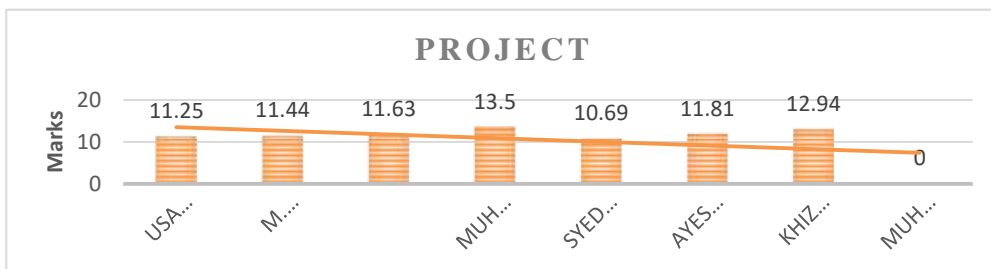


Figure 11: Project-Section B

Figure 12 shows the students at work on their class assignments and the computer typed hard copy. It clearly shows the willingness of the students to complete the task in addition to the assignments with improved language skills and minimal linguistic errors.

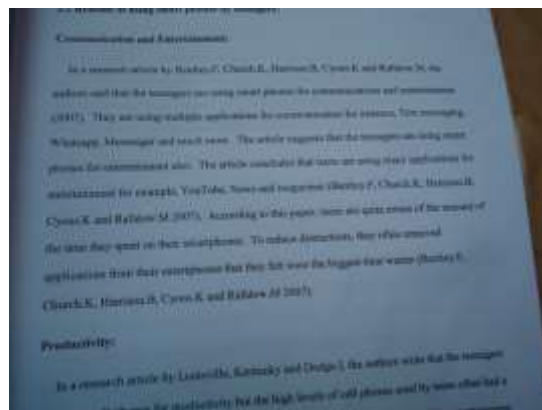
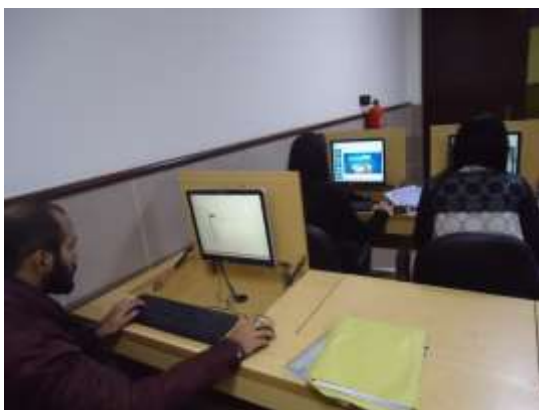


Figure 12: Student willingness to work and improved writing skills

Discussion

This section analyses and discusses the findings of the data collected and represented in the data representation section.

1. **Student involvement** in class was huge in case of the experimental group as compared to the student involvement in the control group. It was observed that their level of interest was higher as they were actively engaged in the class activity, as suggested by Solanki (2012).
2. The findings show that the experimental group was given **instant feedback** during the class activity while the students are at work on their computers. On the other hand, the control group were given delayed feedback, as manual marking is not time efficient. Further the students had to fix appointments with the course instructor to discuss the feedback which was not much helpful for the students as against the experimental group.
3. Some assignments were complex and the instructor after explaining the task made students start working on the assignments in the class. This **guided writing** was helpful for the students' active learning. Students could later on complete their assignments at home by working on the same saved files. This is what Purcell, Buchanan & Friedrich (2013) also believe that technology makes learning writing easier for young learners. The control group also underwent guided writing tasks, but it was observed that they wasted time in taking notes, getting started and making amendments readily. They would rather look for excuses than completing the task. Hence, complexity of writing tasks was further emulsified (Gillespie & Murphy, 2006).
4. It was observed that **meeting deadlines** was convenient for the experimental group than the control group. No student submitted late assignments because they could email assignments within the designated period even if they were not in town. The control group had to take time out to submit the assignments in person, which was not possible for all students always due to their personal engagements.
5. Since writing is a complex task and **motivating learners** to take up writing is always a challenge for the instructors. The complexity in writing also emerges from idea generation and information collection (Itua, Coffey, Merryweather, Norton & Foxcroft, 2014). It was observed that the experimental group were self-motivated to write because they had access to internet and digital libraries, which helped them in getting information where they were stuck. This observation testifies Boas' views about incorporating technology in the process writing approach (2011). The control group felt less motivated as their work was stuck once they needed to search any details. They would either seek guidance from the instructor or visit the library in person. Even seeking guidance from the instructor delayed the process as he/she could be busy with other students in the class. This was good reason for demotivation.
6. The results of the assignments, mid term and project show that the students in Section B achieved better language and writing skills, which is a result of using computers for in-class activities.

Conclusions and Recommendations

This section will first give conclusions and then provide recommendations for those conclusions.

6.1 Conclusions

The study conducted to analyze the impact of the use of technology on the academic/business writing of the students concludes that the level of interest of the participants of the experimental group was definitely higher than the control group. The experimental group took their class assignments seriously, as they were given feedback instantly. They rather enjoyed their work as they found working on computers neither boring nor tedious. On the other hand, the control group had to wait until the teacher could finish working with one group. This waiting bored the students and they were distracted by the time it was their turn to discuss.

The experimental group also liked this system of learning writing, as they would start their assignments in class on the computers and work on the same files at home to complete them. This also saved them time and reduced their pressure of home tasks. However, the control group only took notes in the class and had to incorporate them to complete their home tasks. This was quite taxing for them.

Experimental group found it easy to meet the deadlines as they could mail the assignments even from home. So technology inclusion simply facilitated their learning competency (Boas, 2011). The control group had to submit assignments in person within university working hours. As a result, some students missed the deadlines also due to other personal engagements like unavoidable and unplanned family trips.

Experimental group was more motivated as compared to the control group as they had access to computers and internet for collecting information, using thesaurus, online dictionaries, linguistic and grammar check. Hence, Solanki's views hold truth in establishing the point that students learn better and faster in a technology-based classroom (2012).

6.2 Recommendations

In order to engage students at the school level or higher education level, students should be given computer based writing tasks as it motivates students to indulge in self-learning compared to the traditional teaching method. Instant feedback is immensely important for students in the second language context so that their issues are immediately addressed. This would also give them a push to quickly overcome their linguistic impediments. Students should be encouraged to type longer assignments as it is quicker than writing them. Also editing and proofing is way more convenient and less time consuming for the students. Hence, technology usage makes it easier for students to practice writing profusely.

Since the use of technology reduces boredom, students feel motivated to take up writing with interest, which motivates the students a lot. Part use of technology should be adopted even in the traditional classroom. Accessing internet on the tablets and mobile phones would be helpful for collecting information and generating ideas. Thus blended techniques of teaching and learning should be adopted for improving writing competencies of the students.

Future Research

Based on the findings of the current study, researchers can also inquire into the critical barriers to advanced technology usage for education enhancement and promotion in the developing countries in future. This can also be studied particularly in the wake of the rural settings and appropriate solutions may be provided for improvement.

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