



RESEARCH PAPER

Analyzing the Perceptions of Learners to Integrate Technology in Learning English at Public Sector Engineering University of Sindh, Jamshoro

Ali Siddiqui*¹ Sidra Khan² Noor Ul Ain Sahito³

1. Ph. D Scholar, Institute of English Language and Literature (IELL), University of Sindh, Jamshoro, Sindh, Pakistan
2. Lecturer, Department of English, University of Art and Culture, Jamshoro, Sindh Pakistan
3. Lecturer, Peoples University of Medical and Health Sciences for Women, Shaheed Benazirabaad, Sindh, Pakistan

***Corresponding Author** Scorpion_king2893@outlook.com

ABSTRACT

They study intends to know the perceptions of engineering students to use technology in learning English at Mehran university of Engineering and Technology, Jamshoro. The study tries to know the responses of students with the impact to learn English through technology. According to the majority of the responses from students, the integration of technology can affect the educational and the occupational lives of engineering students. The scheme of this study follows cross-sectional design and adopted the quantitative approach. The research had data from 150 students that represented five departments of engineering field at Mehran University, Jamshoro. The six technological domains in use of students tend to answer to learn for English. It was concluded after the analysis of responses from SPSS version 23 that the effective learning and the teaching of English with integration of technology can be possible at Mehran University of Engineering and Technology (MUET), Jamshoro, Sindh.

KEYWORDS Domains, Engineers, English, Learning, Technology, University

Introduction

English is considered as the global language. Though, English is not the first language of natives in the South Asia, however, it has its importance in entire subcontinent. It is spoken around the globe except China and few other countries (Crystal, 2003). The emergence of Pakistani English was recorded with invasion of Britain in Subcontinent and in their rein. English was introduced in Pakistan after its independence and with the formation of Higher Education Commission (HEC) in Pakistan, it was mandatory to teach English in every other institutes of the country. Therefore, the importance of English is felt significant in almost all educational systems of Pakistan.

Literature Review**Significance of English at Global Level**

Learning English on global stage is important because it develops the overall academic ratio of country on global level. With this, the education is only way to change the literacy and economic outlook of the country. In this stage, English becomes significant that creates chances of communication with the World for development. According to Crystal (2003), English is spoken to second after Mandarin around the globe. It is language of not only America and England; however, it has been spoken in various dialects and

accents all around the globe. Therefore, in order to become competent on national and international levels, it is vital to have proper command on English. This will result into meaningful interaction in international platforms. English is now a business language internationally; therefore, a basic knowledge to know and speak English can put positive impact on individual at national and international spheres.

Use of Technological Gadgets in Educational System

The integration of technological gadgets in education is vital to bring efficacy in achieving educational goals. The use of technology is observed in use usually for the language learning classes. Therefore, technology is gaining prominent place in learning and teaching English in higher institutes. There are benefits to count with integration of technology to learn language in different contexts. It is because, the technological gadgets create atmosphere familiar to context of language. It then becomes easier for learner to learn a language. The use of technological gadgets helps learners to access to native speakers of English, or even to communicate with anyone. This is how the standards to learn the language are met. The use of technology in learning process has positive impact on educational and occupational stages of students' life. They feel easy to practice and teach language with examples. This causes to develop efficiency in educational paradigms for the developing states like Pakistan. The process to integrate technology started from early years of 21st century. Now, the renowned institutes use technology for the purposes of learning and to teach languages. The students of engineering field assume to use technology that could make their learning of language, especially English more easy and simple. The foreign language is easily taught and learnt with examples through integration of technology.

Program to Integrate Technology in Learning English at MUET University, Jamshoro

Mehran University of Engineering and Technology is one of the reputed engineering universities in Sindh, Pakistan. English is taught to the engineering students manually, without the use of technological gadgets. English is taught to them to cope with the international and national competence that is required for their profession. However, the following university has been ranked on well-deserved position throughout the province, Sindh and nationwide. The students are competent to use technological gadgets; however, they are not fully permitted to use technological gadgets in classroom premises. They are competent to use technology to learn. Therefore, it is important to introduce technology in learning English. According to Turugare and Rudhumbu (2020), the technology assists students to comprehend language quickly and effectively.

Previous Contributions

The use of technology is changing the life styles of its users in work and education. Late 1990s shared new advancements that have been concocted, even planned in practical from one month to other. Technology is swirling the teaching methods that are important for scientists and researchers to check the variability of their items. The item that can change during the training and they must be aware of it. Near to past a decade, the peculiarity to instruct with the technology has been worn off. The schools have programmed to battle with system and make a decent life to reduce educational expenses with better opportunities in future. The economic battles are related to education. They have become the reality of today. However, according to Vail (2003), the schools having the restricted assets in event that tends to employ technology to impart instruction of language in trainings.

Glewwe (2009) stated that the integration of technology in communication and teaching has been the powerful element to drive societal, monetary, and political elements with the instructive alterations. The developing nations cannot stand alone to avoid ICT. It is because that they cannot survive without its support to gain the economy worldwide. The economy of strong nation, though it may be rich or the poor, developed or under-development significantly does depend on levels and instructions provided to them in the workforce. The change in training has been the crucial part happening throughout World. It is one of the basic changes in presentation that mixes information technology in teaching framework. This effective form of corporation to incorporate ICT in study warrants the cautious arrangement. It relies on great extent about efficient arrangement to creators that comprehend and reconcile the academic value of elements. The present paper tends to offer rules for strategy makers that are effective in extending mixture of information technology in rooms.

Inan et al. (2010) stated that the investigation is important to create differences in teaching systems that have been used by the educational stakeholders to assist with integration of technology. The relations of applications in personal computer with the classroom rehearsals have been inspected. The information that has been received in form of results stated that around 143 technological based exercises incorporated have been actualized within school premises. The government awarded them innovation awards. The results reflected practices of student centered exercises. The education stakeholders have been facilitators, learning on venture and of free applications. According to the examination, it was revealed that the rehearsals in classroom would have been general and more to student centered, if students use personal computers as their learning gadget. They can have easy access to the internet, prepare word formats, introduce to the programs freely and etc. They can easily practice the drilling exercises on given video demonstrations.

According to Zulfiqar and Azhar (2018), the state, Pakistan is developing nation that focuses to develop its literacy ratio since its inception in 1947. Therefore, the educational ministry tries to develop creative techniques in process to learn and teach. The integration of technology to instruct is a practice that involves gadgets, personal computers with association of web furnished in schools in order to increase learning.

The commitment of under-studies has shown assignments for process to learn. The present investigation shows knowledge of ground actions that usually happens to school concerned partners. The example includes, head-masters and educational partners that pay respect to innovative co-ordinations to learn English and instruct at the auxiliary stages in regard with Baluchistan province of Pakistan. The exploratory analysis of contexts initiated techniques to utilize for completion of examination. The new discoveries in examination have been delineated for present actions of school concerned partners. The additional difficulties have been looked while endeavoring to pay co-ordination in innovation to educate language of English. The articles even suggest work on the network of teaching in context of Baluchistan. It has been viable change to coordinate to increase advantages for integration of technology in schools.

Oblinger (2004) mentioned in study that the instructors and the students are both equally significant for integration of technology in educational system. If the instructors are not aware to teach through technology then the instructor will ultimately fails to satisfy the students. The proficiency of instructors is must for mutual benefit of technological based classes.

Hypotheses

H1: The engineers can improve their learning English more proficiently with the integration of technology.

H2: The technology to learn English greatly impacts the academic levels of the engineers.

Material and Methods

Study follows quantitative approach. It adopts cross sectional design to know the presumptions of engineering students at MUET, Jamshoro. Since this study selects participants from one institute, who are learning English. On a similar record, the study is cross sectional in design that tries to investigate about present domains of technology that can be used in classroom. The presumed impact of the technological domains on academic lives of students would in learning English was inquired from the participants.

Site of Study

Mehran University of Engineering and Technology, Jamshoro in Pakistan has been the site to collect data.

Sampling

The total of one hundred fifty (150) participants was selected for study. Thirty participants from five engineering departments were selected. The five respective departments that were selected named, Civil, Electrical, Electronics, Mechanical and Petroleum and Gas. Data collected was analyzed through SPSS Version (23).

Instrument

The close ended questionnaire with five point Likert scale was used to survey from the participants.

Results and Discussion

Table 1
Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
	Male	114	74.5	76.0	76.0
Valid	Female	36	23.5	24.0	100.0
	Total	150	98.0	100.0	
Missing	System	3	2.0		
	Total	153	100.0		

The above table speaks about the gender proportion of participants. 150 participants have been made the part of following study. It demonstrated that around 114 were male and 36 were female students. It induced as the majority of students at university are males. It has been overall observation in Sindh that the male students progressively have motivation towards the engineering field for their future more in comparison to female students.

Six domains of technology that have been selected to perceive proficiency of students are Microsoft-Word Office, the technological gadgets for lecture deliverance, the managing of computer documents, the online guide of courses and the collaboration of other social networks. The appropriate response of this inquiry realizes the capability level

of 150 engineering students from five individual divisions, in given investigation. This will assist researcher to make overall result of responses given by the engineering students of MUET Jamshoro, to have fundamental information to use technological devices in learning English. The domains were selected to inquire about their capabilities. The data from 150 members have uncovered that the limit of reactions was observed. The majority of engineering students had fair level to utilize six domains of technology. Around 75 students with 50 % of ratio stated that they have fair level to use the following domains of technology. It shows that the engineering students do have fundamental information to utilize six domains of technology and can coordinate to learn English course.

Social Network

Social network is considered key to connect the whole World. It is through the social media, the information is passed in minutes from one part of the World to other. Social media can be a very effective tool to the learn English. Out of 150 students, 55 opined that they have the basic knowledge of the social media. 51 students claimed to have the mediocre knowledge of it with 44 students expressed to have the full expertise to use the social media. The above stats show the social media could be integrated for the purpose to learn English for the engineering students.

Table 2
Proficiency level of Engineering Students in Social Network

		Proficiency Level (Social Network)			Total		
		Beginner	Mediocre	Expert			
Academic Profile	Electrical Engineering	Count	12a	9a	9a	30	
		Expected Count	11.0	10.2	8.8	30.0	
	Civil Engineering	Count	11a	10a	9a	30	
		Expected Count	11.0	10.2	8.8	30.0	
	Mechanical Engineering	Count	10a	11a	9a	30	
		Expected Count	11.0	10.2	8.8	30.0	
	Petroleum and Gas Engineering	Count	12a	11a	7a	30	
		Expected Count	11.0	10.2	8.8	30.0	
	Electronics Engineering	Count	10a	10a	10a	30	
		Expected Count	11.0	10.2	8.8	30.0	
			Count	55	51	44	150
	Total		Expected Count	55.0	51.0	44.0	150.0

Microsoft Office

Office File in Microsoft is a tool that is used to generate the assignments and other soft form of the documents. This tool is widely used globally for the purpose to learn through optimization. It is because instead of the pen and paper one need to type on the keyboard and can see it on the screen. In a result, out of 150 participants, 47 stated that they have the basic knowledge to operate the Microsoft office. 55 said that they have the mediocre knowledge in Microsoft work and 48 claimed to have the expert knowledge to use the office of Microsoft. The data shows that this domain to integrate technology can be used to optimize the learning experience in English language. Engineers can also use this tool in their academic and professional lives.

Table 3
Proficiency level of Engineering Students in Microsoft Office

		Proficiency Level (Microsoft Office)			Total	
		Beginner	Mediocre	Expert		
		Count	Expected Count	Count		
Academic Profile	Electrical Engineering	Count	8a	12a	10a	30
		Expected Count	9.4	11.0	9.6	30.0
	Civil Engineering	Count	9a	12a	9a	30
		Expected Count	9.4	11.0	9.6	30.0
	Mechanical Engineering	Count	8a	12a	10a	30
		Expected Count	9.4	11.0	9.6	30.0
	Petroleum and Gas Engineering	Count	10a	10a	10a	30
		Expected Count	9.4	11.0	9.6	30.0
	Electronics Engineering	Count	12a	9a	9a	30
		Expected Count	9.4	11.0	9.6	30.0
		Count	47	55	48	150
		Expected Count	47.0	55.0	48.0	150.0

Collaboration Network

The collaboration network is considered as to be the network where group of students or come together with their instructors in order to learn and have a better experience of learning. This collaborative network can include the audio and video of the entire representation. The both audio and video can optimize the learning experience of the students. From the results, out of 150 students from 5 different departments 10 claimed to have the basic knowledge of the collaborative network and 50 said that they have the mediocre knowledge of the collaborative networks. 49 students stated that they have the expert knowledge of the collaborative networks. The data expressed that the collaborative networks can be integrated in the learning process of the university. Therefore, in order to give students the better learning experience through integration of technology in the teaching methodology, this can reduce the time of students in order to grasp the concept more efficiently of language and provide the boost missing in the educational system.

Table 4
Proficiency level of Engineering Students in Collaboration Network

		Proficiency Level (Collaboration Software)			Total	
		Beginner	Mediocre	Expert		
		Count	Expected Count	Count		
Academic Profile	Electrical Engineering	Count	10a	10a	10a	30
		Expected Count	10.2	10.0	9.8	30.0
	Civil Engineering	Count	10a	9a	11a	30
		Expected Count	10.2	10.0	9.8	30.0
	Mechanical Engineering	Count	11a	12a	7a	30
		Expected Count	10.2	10.0	9.8	30.0
	Petroleum and Gas Engineering	Count	10a	10a	10a	30
		Expected Count	10.2	10.0	9.8	30.0
	Electronics Engineering	Count	10a	9a	11a	30
		Expected Count	10.2	10.0	9.8	30.0
		Count	51	50	49	150
		Expected Count	51.0	50.0	49.0	150.0

Guide of Courses Online

Guide of courses online can help the students to get to know the criteria to learn and how to get the knowledge. The online course contains all information that has been

taught in the class rooms and in some cases the online recording of the lectures can also be obtained from online courses. Out of 150 participants, 47 said to have the basic knowledge of the online courses and 55 stated that they have the mediocre knowledge of the online course. 48 students claimed to have the expertise in this field of the online courses. The expertise on online course guide from the above stat shows that many of the students of the university need to integrate as a tool to learn English by the engineers briskly.

Table 5
Proficiency level of Engineering Students in Online Guide Courses

			Proficiency Level (Online Guide Courses)			Total
			Beginner	Mediocre	Expert	
	Electrical Engineering	Count	10a	10a	10a	30
		Expected Count	9.4	11.0	9.6	30.0
	Civil Engineering	Count	9a	11a	10a	30
		Expected Count	9.4	11.0	9.6	30.0
Academic Profile	Mechanical Engineering	Count	11a	10a	9a	30
		Expected Count	9.4	11.0	9.6	30.0
	Petroleum and Gas Engineering	Count	7a	13a	10a	30
		Expected Count	9.4	11.0	9.6	30.0
	Electronics Engineering	Count	10a	11a	9a	30
		Expected Count	9.4	11.0	9.6	30.0
		Count	47	55	48	150
Total		Expected Count	47.0	55.0	48.0	150.0

Technological Gadgets for Lecture Deliverance

Technological gadgets help in the learning process from computer to LCD and projector to all that considers use of digital technology. It referred to gadget that is used for deliverance of lectures. According to the stats, 48 out of 150 participants claimed to have the basic knowledge of the technological gadgets. 57 of them claimed to have the mediocre knowledge and 45 claimed to have the expert knowledge of all the technological gadgets that are used for the purpose to deliver lectures. From the above data, one can analyze that the university can use the domain of technological gadgets in order to optimize the learning experience of the language for the engineers.

Table 6
Proficiency level of Engineering Students in Technological Gadgets for Lecture Deliverance

			Proficiency Level (Technological gadgets for lecture)			Total
			Beginner	Mediocre	Expert	
	Electrical Engineering	Count	10a	12a	8a	30
		Expected Count	9.6	11.4	9.0	30.0
	Civil Engineering	Count	10a	11a	9a	30
		Expected Count	9.6	11.4	9.0	30.0
Academic Profile	Mechanical Engineering	Count	9a	11a	10a	30
		Expected Count	9.6	11.4	9.0	30.0
	Petroleum and Gas Engineering	Count	10a	12a	8a	30
		Expected Count	9.6	11.4	9.0	30.0
	Electronics Engineering	Count	9a	11a	10a	30
		Expected Count	9.6	11.4	9.0	30.0
		Count	48	57	45	150
Total		Expected Count	48.0	57.0	45.0	150.0

Management of Documents

Managing the documents is very tough task in academic life. It is also referred efficiently handling or manage the documents in personal computer. It can be available at the time of need to manage documents. It is considered y much important in any students' academic career. Out of 150 students, 51 students of the Mehran University claimed to have the basic knowledge of the tool and 53 students claimed to have the mediocre knowledge of this field. 46 have the full expert knowledge of managing the document in the above data. It has shown that the management of documents can be easily done by the students of Mehran University. This can have the better learning and management experience for the students.

Table 7
Proficiency level of Engineering Students in Management of Documents

			Proficiency Level (Management of documents)			Total
			Beginner	Mediocre	Expert	
Electrical Engineering	Count	10a	11a	9a	30	
	Expected Count	10.2	10.6	9.2	30.0	
Civil Engineering	Count	11a	9a	10a	30	
	Expected Count	10.2	10.6	9.2	30.0	
Academic Profile	Mechanical Engineering	Count	8a	10a	12a	30
		Expected Count	10.2	10.6	9.2	30.0
Petroleum and Gas Engineering	Count	12a	11a	7a	30	
	Expected Count	10.2	10.6	9.2	30.0	
Electronics Engineering	Count	10a	12a	8a	30	
	Expected Count	10.2	10.6	9.2	30.0	
		Count	51	53	46	150
Total		Expected Count	51.0	53.0	46.0	150.0

The above data in response to integration of technological tools to learn English from 150 participants in five different disciplines have shown that they all have the basic knowledge of the tools to integrate technology in learning process. The integration can help them to use it more efficiently and effectively for the purpose of learning. It can help them to meet the global standard of English communication through these tools. Therefore, it will make them aware with the use of language in term of written and spoken form in all around the world. This will allow them to gather more knowledge about the subject that will be eventually considered both good for the institute and the students.

So the above data shows that these six domains of technological aspects have been known to the engineers, pursuing their courses at the Mehran University. It is if the university integrates the following technological aspects in learning of the language, then it will be much effective for the university and the students.

It was inquired from 150 engineering students that represented 5 different departments of the university about learning English with integration of technology. According to them It can make whole academic life better. Out of 150 students, 30 stated that there is no impact of learning English on their academic life. However, 65 of them agreed that by learning English through technological integration have made their academic life slightly better and 55 strongly agreed to this fact that learning English have made their academic life better. According to the above stats, it shows that learning English with technological integration have made the academic life of the engineers even better. The language learning boosted them in their academic life because all in academic life they have to use the language of English on daily basis. If they have firm grip on English, then

they can exceed more in their lives. If English has made their academic life better it also have made their English language skills up to the global level.

Table 8
Chi square test of Learning English through technological integration made your academic life better

	Value	Df	Asymptotic Significance (2-sided)
Pearson Chi-Square	6.858a	8	.552
Likelihood Ratio	6.891	8	.548
Linear-by-Linear Association	4.154	1	.042
N of Valid Cases	150		

Value of p square is .522. It is greater than the threshold value of 0.005. It makes us to accept the fact that learning English would overall enhance the academic life of the engineers. The data above collected shows the result that engineers' academic life is very much improved after learning the language of English through the technological integration. The English language is considered as to be the language in which all other courses of engineering are taught. Therefore, in order to have the fluency in understanding the concepts and the fundamentals it would be allow to the engineers to have integration of technology. So learning English would also help the engineers to perform better in their academic life and learning English would also be very helpful for them in future.

Conclusion

The results of the data after the analysis of responses have shown that the six domains of technology that have described in a paper can be used in the form of tools to learn language in one of the Engineering Universities of Sindh. Out of the 150 students from 5 different engineering departments, the majority of students possessed basic knowledge of technological gadgets in learning of the English language. This shows that the students have been using the technological gadgets in past. These tools can enhance the learning experience of students and teachers are even motivated to teach language with the help of technology. Nowadays, the technological gadgets are widely used for the purpose of education throughout world. Therefore, these gadgets can be integrated for the learning purposes in Sindh province of Pakistan. This can assist to meet the required goals and meet with global standards of engineering education in Pakistan. This results into the production of better future engineers and graduates that could serve to boost the economy of Pakistan.

Implications

The present study can prove beneficial for the University staff. It is found that the integration of technology can improve the purposeful learning of English. This teaching approach can allow the students of Mehran University to meet with their global standards of education through proper use through technological domains. The study claimed that the learning of English with technological integration can help the engineers academically and professionally. It even tends to glorify the aim to learn English. It focuses on the language learning of the students at the University level. It is because the future of the students does depend on learning of English that would allow them to have better academic life. Therefore, it can be concluded that the attention should be given to the learning of language through the integration of technology in classroom. If, it is not taken under the consideration on higher levels then this can hamper the academic life of the engineering students.

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