

Language Barriers And Role Of Information Technology

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Abstract

Barrier of languages, racial and cultural diversities are the major issues that can affect the development and sharing of knowledge among the learning communities. Use of English in the development of mobile applications, video games, research papers, video conferencing and multimedia presentation has showed its vital role in changing environments. It has given a chance to the intellectuals of developed as well as developing countries to share their research on internet by crossing the barrier of languages. The internet has made the world as a global village in which each person can access, communicate and manipulate information by sitting within the four walls of his room. The survey was conducted to analyze the role information technology and English among the teachers, researchers and students. Mixed method research approach was utilized to record the data. Significant differences were observed for email, research exploring, Power point, Video conferencing, Search engine optimization and use of English in speaking, hearing, writing, Learning, English is a barrier in communication, official correspondence and internet helps in English improvement for teachers, researchers and students. Researchers were outclass in all qualitative measures of confidence, communication, analytical and research skills. The paper helps in establishing the role of information technology and English among the intellectuals and provides their different aspects that learning community utilizes for knowledge sharing.

Keywords: Barrier, English, Information technology, mixed

Introduction

English has flourished itself as a universal communication language. English language exhibits a decisive role to unite the world into a single thread. It emerges as a second language in almost all the countries except the English native countries. English has proven a global language due to its utilization in modern science and technologies, like information technology, space science and

Medical sciences. Spence and Liu (2013) emphasized the need of English in the engineers, not only to get knowledge about their profession but also to attract and retain faithful customers as most of the communication in World Wide Web takes place in English. It is a window to world for international affairs, correspondence, commerce and trade. Its status in the global marketplace cannot be devalued as researchers from all over the world reports that cross-border business communication is mostly preferred in English. Language words depict our intelligence and authority. A human being having good expertise in software development but is unable to express his knowledge in the words is less concentrated by the employer. Kidd et al. (2016) stated that it became part and parcel of different courses being taught since 1970. Learners need about the language play a vital role in course development (Jordan, 1997). Need of English language at workplace is also reported by Kassim and Ali (2010).

In this technology era, computers can be perceived dominating all over the world. Eighty percent of computer information is managed and accumulated in English. Researchers have sorted out that more than about half of world newspapers are published in English. English has played a vital role in information technology enhancement. IT is a basic tool in businesses and is the main pillar of the commercial activities in the world. Kassim and Ali (2010) reported that English communication, enhances the chances of employment as well as promotion. It is most important for Information Technology (IT) employees who are continuously involved in the meeting, interviewing and feedback of the complaints. Data on the internet is available in English as most pop up websites on the World Wide Web were designed by native English speakers. In addition a lot of computer terminology has its generation from English. So it is necessary to well aware of the English language. Exercising the English language as a prime IT language, has simplified computer processing. The commands for operating systems are built in English that fully understand it, leaving other language commands unattended. Most IT tools are primarily produced with English interface and then upgraded with other language support. Information technology aids traditional as well as online education. Multimedia presentations, video conferencing, knowledge-management software, and collaborative document editing are the significant information technology services helping the human kind.

The Internet and its Websites are now well-known to many learning communities in the developed as well as developing countries. Before globalization, it was very difficult to learn English if you did not attend the formal institution. The invention of the internet has its foot in the west that have English as their native language resulting in spread of English all over the world. The objective of study was to investigate 1) purpose of usage of information technology and English among the teachers, researchers and students. 2) How intellectuals integrate technologies for their learning objectives. 3) Extent of influence of computer and English among the intellectuals.

Material and methods

The aim of the study was to explore the use of information technology and English among the intellectuals. To achieve the objectives, both quantitative and qualitative research was performed. Bryman (2006) described the importance of both qualitative and quantitative research methods. Qualitative research provides in depth knowledge about the participant views (Johnson & Christensen, 2004) while quantitative research explores generalization about the studied population. The blend of both research methods leads to the formation of mixed method that utilize the strength of both approaches for its findings (Johnson et al., 2007). The study utilized interview (qualitative) and questionnaire (quantitative) to overcome the limitation of single research method. The participants of this study were (N=120) teachers, researchers and students who were frequently involved in information gathering and dissemination among the people. Data was collected using structured questionnaires and face to face interviews. The first part of the questionnaire contained demographic information of the individuals like gender, age and official status (teacher, researcher or student). The second part of the questionnaire explored the use of computer and internet for email, research exploring, power points, video conferencing and search engine optimization. The third section of the questionnaire explored the use of English for the intellectuals like hearing, writing, reading, learning and speaking. The fourth section investigated the level (primary, secondary school, and higher secondary school, undergraduate) in which intellectuals got knowledge about English and computer. The fifth section contained information about English as a barrier to overcome the new technology and role of the internet to overcome it. Qualitative data were collected through confidence, communication skills, analytical skills and research skills to probe extensively participant instance on the subject. The data collected in quantitative research were tested for independence of the data through chi square test. It was checked whether any relationship existed between the teachers, researchers and students about the use of computer and English.

Results

The objective of the study was to find the use of computer and English among the teachers, researchers and students. The way intellectuals utilized English and computer to meet the current market demands. The study was performed on the population having size of 120. Each variable has equal (N=40) representation in the population. It has been observed that teachers used computer and internet, 95% for email, 80% for research exploring, 82.5% for power point, 70% for video conferencing and 57.5% for search engine optimization. Researchers used 62.5% for email, 90% for research exploring, 42.5% for power point, 47.5% for video conferencing and 50% for search engine optimization. Similarly, students used 45% for email, 62.5% for research exploring, 75% for power point, 12.5% for video conferencing and 37.5% for search engine optimization (table 1). It was further studied that teachers, researchers and students used English, 62.5%, 25% and 12.5% for speaking, 55%, 50%, and 25% for hearing, 97.5%, 92.5% and 82.5% for writing, 77.5%, 87.5% and 75% for reading and 50%, 34% and 92.5% for learning respectively

(Table 2). It has been observed that 75% of teachers, 62.5% of researchers and 82.5% of students elaborated that English was a barrier in communication. 97.5% of teachers, 90% of researchers and 92.5% of students described that English was necessary to get awareness about new technology. 97.5% of teachers, researchers and students elaborated that relevant material was available in English only. 92.5% of teachers, 87.5% of researchers and 72.5% of students showed that their official correspondence was in English. 85% of teachers, 80% of researchers and 77.5% of students elaborated that the internet helped them to improve the English (table 3). It was further studied that teachers, researchers and students got basic of English at secondary school level while the majority of teachers and researchers got basic of computer at the undergraduate level while students got it at different levels with the majority at the high secondary school level. It was further observed that most of the teachers and researchers were well aware about the computer and English at the undergraduate level while most of the students were at higher secondary level (table 4). It was observed that 25, 27 and 26 of teachers, researchers and students were excellent in confidence in qualitative analysis. 28, 29 and 20 of teachers, researchers and students were excellent in communication. 23, 19 and 15 of teachers, researchers and students were excellent in analytical skills. 20, 32 and 9 of teachers, researchers and students were excellent in research skills. Majority of intellectuals had excellent qualitative characteristics that enhanced the accuracy of our quantitative results (table 5). Comparison of the confidence, communication, analytical skills and research skills among the intellectuals in fig. 1, 2, 3, 4 showed that researchers were outclass in all qualitative analysis. The chi square values in table 6 showed that there was a significant difference among the teachers, researchers and students about the use of computer and English. Email, Research exploring, Power point, Video conferencing, Search engine optimization, speaking, hearing, writing, Learning, English is a barrier in communication, official correspondence is in English and internet helps in English improvement were the variables that showed significant differences among the intellectuals. Reading, English is necessary to get awareness about new technology and relevant material is available in English only were the variables that showed non-significant difference at $P \leq 0.05$.

Discussions

The objective of the study was to find use of computer and English among the intellectuals. The mixed research approach was utilized to achieve the objectives. Zhao and Frank (2003) elaborated the importance of computer and internet at low levels. They also elaborated that the use of technology was easier for the individuals who were familiar with English. Zhao and Frank (2003) described the use of computer for emails and searching material on the internet. Email was important for written communication. The majority of teachers and researchers in the study used email for written communication. Our findings are in accordance with the findings of Spence and Liu's (2013) and Flowerdew's (2013). Researchers followed by the teachers used the computer more for research exploring than students. Our findings are against the study of Rogers (1995)

Who elaborated that people are reluctant to adopt new technology for exploring their hidden abilities. Gilmore (1995) stated the importance of the technology for the teachers. Maximum use of the power point was for the teachers to prepare the lecture slides in the English. Ertmer (2005) endorsed our findings that teachers used technology in the preparation and delivering of the lectures. Aykaç (2005) described that the internet had made the world as a global village and minimize the intercultural issues. The concept of video conferencing and search engine optimization was also given by the computer and internet. Video conferencing helps to join different people within the four walls of their rooms. Lin et al. (2004) also emphasized the use of technology for the teachers. Maximum use of video conferencing and search engine optimization was performed by the teachers. Grabe and Stoller (2002) described that people used English for writing, listening, reading and speaking. Considering the objective, data were collected from the intellectuals about different use of English among them. It was observed that teachers used English more in speaking, hearing, writing and reading while students used English more in learning. Our study endorsed the findings of Ahmadi (2017). It was further studied to evaluate English as a barrier in the communication. It was observed that 82.5% of students declared it as a barrier. All the intellectuals emphasized the need of English and more than 90% of the intellectuals admire its need to get aware of the new technology as most of the material on the net is available in English. Our findings are in accordance with the findings of Bull and Ma (2001) who reported the role of technology in providing infinite resources for the learners. Teachers and researchers also reported that their official correspondence was in English. Most of the intellectuals elaborated the role of internet in improving the English. Harmer (2007) and Gençler (2015) also reported the success of computer technology in language learning. Adam (2019) also emphasized the use of technology for the learners. Eady and Lockyer (2013) elaborated the role technology for the beginners. The study recorded that most of the teachers and researchers got basic of English at secondary school level while students got it at primary level. Teachers and researchers got basic of computer at undergraduate level. Most of the students were well aware of English and computer in secondary and higher secondary school levels. Our studies are in accordance with the finding of Costley (2014) and Godzicki et al. (2013).

In order to underline the accuracy of quantitative data, qualitative data were also collected. It was observed that most of the intellectuals were confident. Our research endorsed the findings of Pourhosein Gilakjani (2017). Born in technological era does not mean to be skillful in technology (Bennett et al., 2008). Our study showed that Communication, analytical and research skills of teachers and researchers were more than the students. The findings are in accordance with the findings of Dockstader (2008). The significance of the results was recorded in Email, Research exploring, Power point, Video conferencing, Search engine, speaking, hearing, writing, Learning, English is a barrier in communication, official correspondence is in English and internet helps in English improvement for teachers, researchers and students. It showed that use of computer and

English among the intellectuals varied and data was not homogenous. The significance of the results is in accordance with the findings of Zhao and Frank (2003) and Aykaç (2005).

Conclusion

Our findings showed that most of the intellectuals used computer for email and research exploring. The use of English was dominated in writing and reading. All the intellectuals had the opinion that English was necessary to get awareness about the new technology and internet helped them to improve the English. New generation (students) was well aware about English and computer up to high secondary school levels. Most of the teachers and researchers got basic knowledge of the computer at undergraduate level who needed more training in IT sector to explore the hidden abilities. The research and analytical skills were the least in students who needed more case studies to improve the research skills and drew inferences in a short time frame.

Declaration

Availability of data and materials All the data relevant to the research are available in the paper.

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Table 1. Statistics for the use of computer and internet.

Variables	Total	Email				Research exploring				Power point				Video conferencing				Search engines optimization			
		User		Nonuser		User		Nonuser		User		Nonuser		User		Nonuser		User		Nonuser	
		F	P	F	P	F	P	F	P	F	P	F	P	F	P	F	P	F	P	F	P
Teachers	40	38	95	25	5	23	80	8	20	33	82.5	7	17.5	28	70	12	30	23	57.5	17	42.5
Researchers	40	25	62.5	15	37.5	36	90	4	10	17	42.5	23	57.5	21	52.5	19	47.5	20	50	20	50
Students	40	18	45	22	55	25	62.5	15	37.5	10	25	30	75	5	12.5	35	87.5	15	37.5	25	62.5

F = frequency, P = percentage

Table 2. Statistics for the use of English.

Variables	Total	Speaking				Hearing				Writing				Reading				Learning			
		User		Nonuser		User		Nonuser		User		Nonuser		User		Nonuser		User		Nonuser	
		F	P	F	P	F	P	F	P	F	P	F	P	F	P	F	P	F	P	F	P
Teachers	40	25	62.5	15	37.5	22	55	18	45	39	97.5	1	2.5	31	77.5	9	22.5	20	50	20	50
Researchers	40	10	25	30	75	20	50	20	50	37	92.5	3	7.5	35	87.5	5	12.5	17	34	23	66
Students	40	5	12.5	35	87.5	10	25	30	75	33	82.5	7	17.5	30	75	10	25	37	92.5	3	7.5

F = frequency, P = percentage

Table 3. Statistics about English barriers and internet role.

Variables	Teachers				Researchers				Students			
	Y		N		Y		N		Y		N	
	F	P	F	P	F	P	F	P	F	P	F	P
Is English a barrier in communication?	30	75	10	25	25	62.5	15	37.5	33	82.5	7	17.5
Is English necessary to get awareness about new technology?	39	97.5	1	2.5	36	90	4	10	37	92.5	3	7.5
Is relevant material available in English only?	39	97.5	1	2.5	39	97.5	1	2.5	39	97.5	1	2.5
Is official correspondence in English?	37	92.5	3	7.5	35	87.5	5	12.5	29	72.5	11	27.5
Does internet help in English improvement	34	85	6	15	32	80	8	20	31	77.5	9	22.5

F = frequency, P = percentage

Table 4. Stages of learning of Computer and English among the intellectuals.

Variables	Teachers				Researchers				Students			
	P	SS	HSS	UG	P	SS	HSS	UG	P	SS	HSS	UG
Basics of English read at	0	40	0	0	5	35	0	0	40	0	0	0
Basics of computer read at	0	1	2	37	0	3	12	25	15	5	19	1
Wellaware about the usage of Computer and English (both)	0	0	2	38	0	3	18	19	6	15	18	1

P= Primary, SS= Secondary School, HSS = Higher Secondary School, UG = Undergraduate

Table. 5. Qualitative assessment of the intellectuals.

Variables	Total	Confidence				Communication				Analytical skills				Research skills			
		E	VG	G	S	E	VG	G	S	E	VG	G	S	E	VG	G	S
Teachers	40	25	10	3	2	28	7	4	1	23	10	4	3	20	10	7	3
Researchers	40	27	6	5	2	29	6	4	1	19	8	2	11	32	6	1	1
Students	40	26	6	2	6	20	9	2	9	15	7	7	11	9	8	6	17

E= Excellent, VG= very good, G= good, S= satisfactory

Table.6. Chi square values of computer and English variables for teachers, researchers and students.

Variables	Chi-square value	P-value
Email	58.6258	0.00001*
Research exploring	21.4849	0.00002*
Power point	68.5097	0.00001*
Video conferencing	76.3181	0.00001*
Search engine optimization	08.1124	0.17314*
Speaking	61.0180	0.00001*
Hearing	21.0407	0.00027*
Writing	13.9194	0.00094*
Reading	05.8654	0.5325 ^{NS}
Learning	80.0147	0.00001*
English is a barrier in communication or not	10.4473	0.0053*
English is necessary to get awareness about new technology or not	03.9643	0.13770 ^{NS}
Relevant material is available in English only or not	0.29250	0.86390 ^{NS}
Official correspondence is in English or not	15.1880	0.00005*
Internet helps in English improvement or not	02.0946	0.35080*

* Significant at $P \leq 0.05$

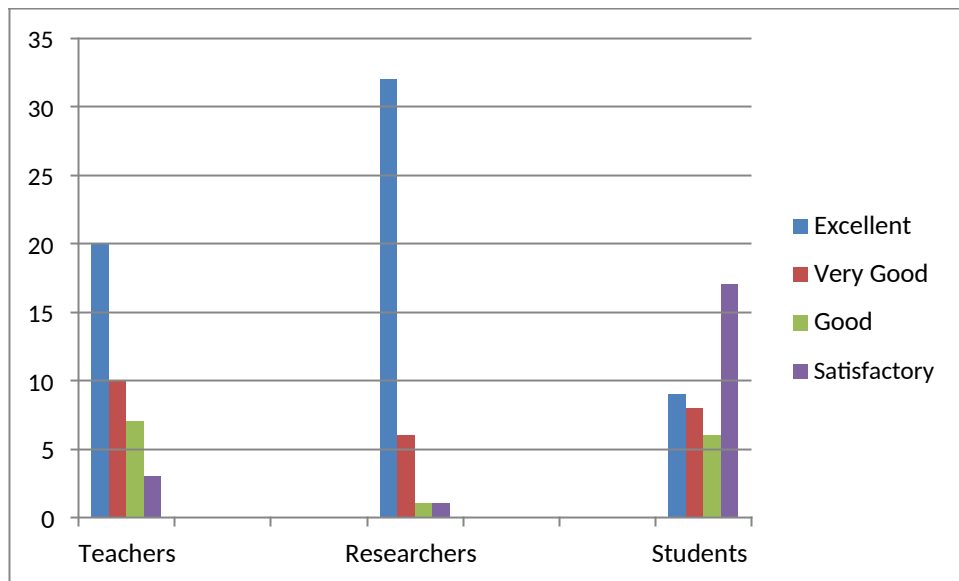


Fig 1. Confidence level of intellectuals.

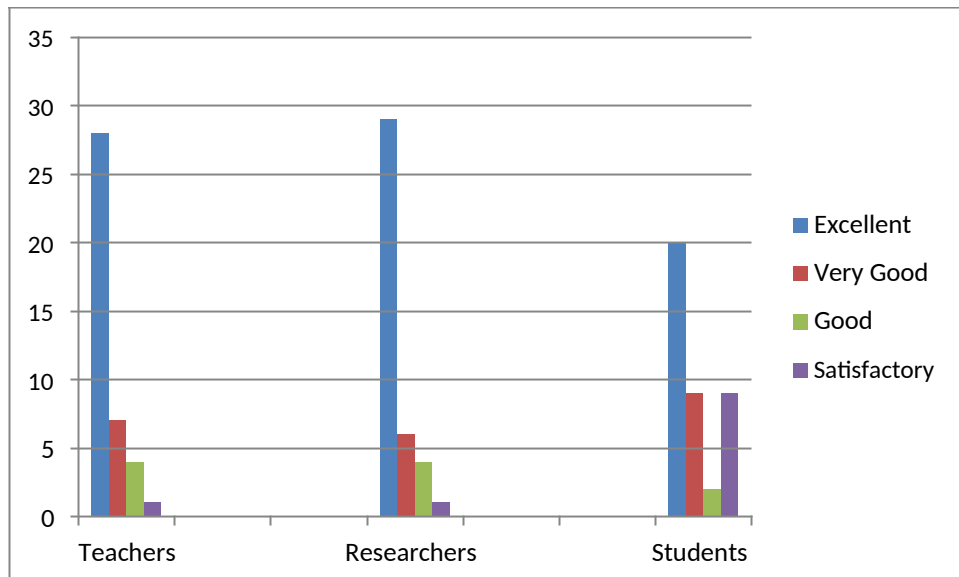


Fig 2. Communication skills of intellectuals.

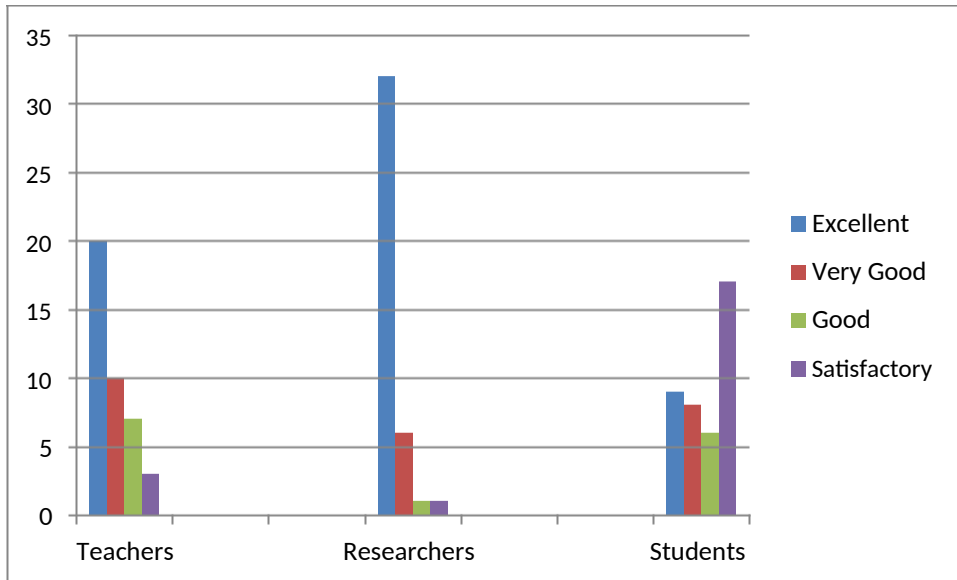


Fig 3. Analytical skills of intellectuals.

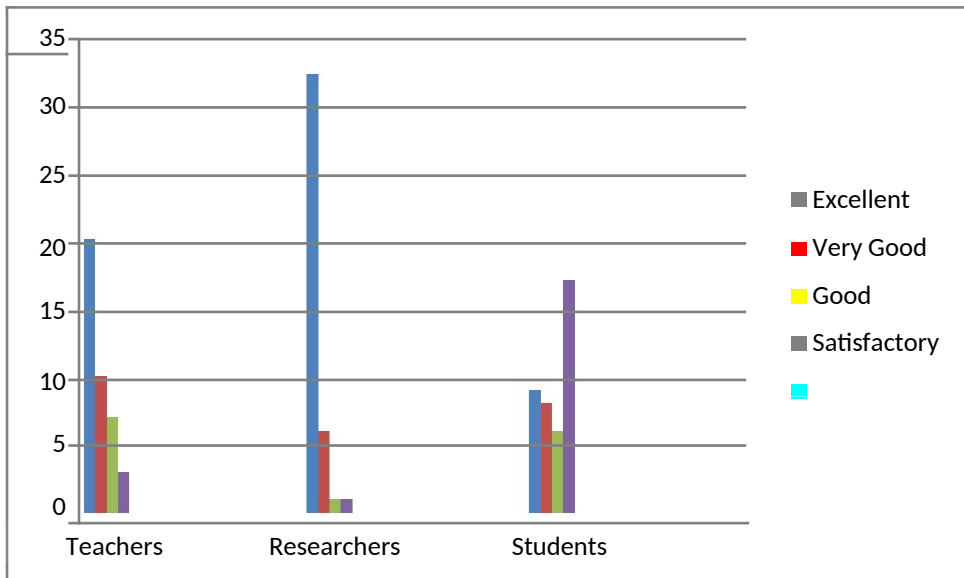


Fig 4. Research skills of intellectuals.