

# IMPACT OF INFORMATION AND COMMUNICATION TECHNOLOGY TOOLS, TEACHERS, STUDENTS' ATTITUDE AND CURRICULUM FOR ENGLISH LEARNERS AS UNIFIED ACCOMPLISHMENT

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**ABSTRACT:** *Integrated effects of Teachers, Students, Curricula, and usage of Information Communication Technology (ICT) tools are forceful agents of informational change worldwide. However, the level to which they have deployed are creating the misconception to the performance of ESL students. The study encompasses the research case study to check the impact of different important variables, i.e., ICT tools, Teachers, Students and Curriculum on the Learning of the students of ESL classes in the primary schools of Pakistan. It has incorporated a wider range of variables to check their impact. The data were collected from all the four provinces of Pakistan. From randomly selected schools, a sample size of 500 students were taken. Collected data was analyzed in the SPSS 21.0 to evaluate the impact of these variables on the dependent variable i.e., Learning of the ESL students. All the hypothesis were tested one by one to appraise the results. The hypothesis results were almost the way they were predicted, except only one, i.e., teacher's method of teaching. It was rejected due to the inadequate training in the use of ICT tools in teaching as the teachers were unable to perform well. Effective learning supported by state of the art technology is the prime need, drives equally for qualification and for revision. We hypothesized that the deficiency of integration in acting parameters valuations and a course of action leads to incompetent approaches. This study suggests that the teachers need to be imparted enough training to cope with the upcoming trends and the students should also be offered more subjects with advanced teaching techniques. It is also recommended that the curriculum be developed to grasp knowledge with the help of technology than the traditional techniques. This will bring better results to facilitate the education situation of any country.*

**Keywords:** *ICT tools, Teachers, Curriculum, ESL Learning, Students, Pakistan*

## INTRODUCTION

English is a global language and it is used for communication between people with different primary languages in most of the countries [1]. Many researchers and statisticians have concluded that English is one of the most talked languages in the world. According to some people, it is one of the three most talked languages in the world right now and its ranking is increasing with the passage of time [2]. According to Lauder et al., [3], there can be many reasons behind this, but the foremost reason, according to researchers is the fact that technology which is being introduced today is mostly in this language. English is taken by many countries as a secondary language and Asian countries are no different. Countries like Pakistan, Oman, Saudi Arabia and United Arab Emirates have taken an English Language very seriously and they are applying this language as their secondary language in their offices and in the educational system as well [4]. English is being taught at the schools and universities in the Asian Countries [5] and it is really important to check the impact of different variables on the actual learning of English as Secondary Language in those countries, and suggest some measures to make some improvements. In this connection ICT tools are important along with teachers' and the Curriculum as well. This paper will analyze the impact of these variables closely on the understanding of the students of ESL classes. For example, it will evaluate the impact of ICT tools on learning of the ESL students, impact on teachers' understanding and ability to control them and their Curriculum based role. This paper involves a complete hypothesis based study and will check different hypotheses

through statistical tools and the methods used in the upcoming sections. .

## 1.THEORETICAL BACKGROUND

Information and communication technology is taking the world by storm with its inventions in all the walks of life. ICT has changed the way we live and it is making our lives easier and stress free. One of the very important field in which the information and communication technology has made very good advancements, is in the field of education [6].

### A. ICT in the field of education:

Information technology is progressing by leaps and bounds and is making a successful impact in the field of education. There are different tools and techniques which are helping the teachers and students in making the education system better, all over the world [7]. Many studies have shown that the IT tools or the ICT tools are making a positive impact towards the betterment of the education system by introducing new tools and changing the way teachers used to teach at schools and the way students used to learn different things. The internet has changed everything and the students who used the internet in their learning are having higher grades than the students which are not, according to (Kozma, 2008).

### B. Successful introduction of ICT Tools in Education Field:

There are different ICT tools which are making our lives easier and the most important of them is all the computer. The computer has not only made our lives easier, but also has made different discoveries and inventions possible, which will make our lives even easier in the future. In the

educational field, the tools like Projector, Touch Board, Books database, iPads, Tablets, and other ICT tools have made the educational system better. It has not only made the learning easy for the students, but also for the teachers as well. They can learn from different sources and can make their class even more productive as compared to what they did when they don't have any access to the ICT world [9].

### C. ESL in Asia:

English as Secondary Language is being taught at many levels and in many countries. To be a part of the learned and positive stream of the world, Asian countries are now making decisions which can make them grow better and take them to the path of success. Keeping this view in mind, they have introduced many new techniques and introducing ESL was the one [10]. The importance of learning English has increased significantly in the past decade. This can be seen in the fact that many Asian countries have now started to promote English as an official secondary language in their countries, especially after they started trading with the West. There has also been an increase in the number of Arab students who pursue higher degrees in Europe, the US, Canada, and Australia. Most of these programs offer English curriculum degrees. This makes it crucial for students to learn English beforehand, as part of their basic education [11].

### D. ESL and ICT in Asia:

ICT has taken over as a medium of instruction for education in many ways. The technology has improved the way teachers teach in the classroom. It has not only improved the teaching of science and mathematics, but also has revolutionized the study of languages. In Asia, the Sciences are taught with the help of ICT but languages are not taught in the same way. Traditional methods are more often still being used to teach languages, especially English [12]. It is important to study why this is the case, why has technology not been adopted in language teaching in these settings? The answer can be there when we make some impact research on the topic and this is very much sure that the ICT is making a positive impact [13].

### E. Teacher's understanding of ICT tools:

It is really important for the teachers to have a good know how of the ICT tools which they are going to use in their classes. It is really important to suggest that if a country wants to improve the educational system, it should invest in technology and add it in its educational field, but we should keep in mind that the teachers should also be equipped with the use of the technology before we actually introduce it on a full scale [14]. Moreover, teachers should be given training on the use of technology like iPad, projector and the ability to overcome troubleshooting problems [15].

### F. Students' attitude towards using ICT to learn ESL:

Another important factor of using it to teach the students any language or in this case English language is the student's attitude towards learning the IT tools. It is possible that students are not willing to learn the new technology and they cannot just learn it because of their past experiences. According to Reed et al., (2010), students' attitude toward learning technology tools as a different subject should be encouraged. So, it should be kept in mind that students be

first taught the technology and then implement the teaching method to teach the ESL.

### G. Students' exposure of IT tools before the introduction of ICT tools to teach ESL:

It is a technological era and it is supposed that almost everyone in the world has the exposure of IT and computers in their lives because of its popularity, but this is not the case. There are places in the world where the people have no access to the internet and they don't even know how to use the mobile phone or a simple computer [17]. But in the case of this very study, the researchers are relatively fortunate that the students and the teachers of the selected area already have some exposure to the technology and are thus able to grasp the knowledge given to them.

### H. ICT based Curriculum:

It is very difficult to teach the curriculum through technology. If the curriculum is built to be taught through traditional methods, it is difficult to use the technology to teach IT, but if it has been prepared to be taught through technology, it facilitates to teach and learn it [18]. In Pakistani scenario, the curriculum is a bit older and it was not made keeping in mind the IT based mode of teaching. So, this is going to be rather difficult for the teachers and for the students to grasp the knowledge. This is a hypothesis which have been tested here as well In this study, the following hypotheses have been tested to check the impact:

ICT tools ( $H_1$ ) have a progressive effect on the Learning, their understanding by teachers ( $H_2$ ) their method of teaching ( $H_3$ ), students' attitude towards learning through ICT Tools ( $H_4$ ), their past exposure to Learning ( $H_5$ ) and ICT based curriculum ( $H_6$ ) all collectively are considered to have a constructive effect on the Learning of the students of ESL classes.

### d. Dependent and Independent Variable:

The "Students' ESL Learning" is the dependent variable of the research study while six independent variables for the study,  $H_1$ ,  $H_2$ ,  $H_3$ ,  $H_4$ ,  $H_5$  and  $H_6$  have been considered.

### e. Sample Selection Method:

Schools for the collection of data were selected on random sampling technique (RST). The students were also selected at RST. These techniques were used on both the levels to avoid the biases and also to have the representation of rural and urban without any discrimination, which might dent the results.

### f. Sample Size:

Sample size for the study was 500 in number. The sample was evenly distributed among the 4 provinces and a capital in Pakistan. It was made sure that the sample technique of selecting the school and student was random to avoid biases in the sample selection.

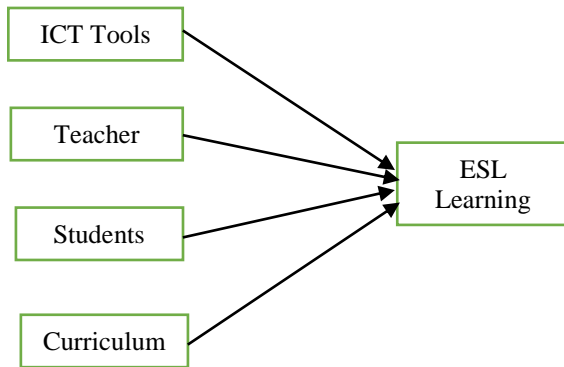
### g. Data Collection Tool:

A questionnaire was the data collection tool. After the collection of structured data by using 500 questionnaires filled by the students, it has been analyzed to check the impact of different variables on SPSS 21.0. 5-point Likert Scale questionnaire with 21 items was developed and analyzed.

**II. RESEARCH METHODOLOGY:**

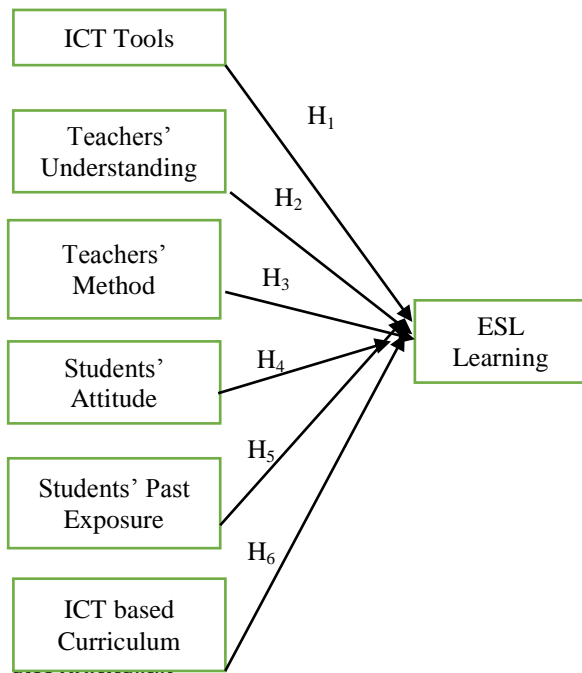
**Conceptual Model (Fig,1)**

As this is a model based study, the conceptual model of the study is as under:



**Figure 1; Showing a conceptual model to**

The hypothesized Model of the study is as follows:



**Fig. 2: Hypothesized Model:**

***h. Analysis of Tools/ Instruments:***

To check the validity of the instrument a pilot study was conducted. After it is checked for validity, a full scale distribution of the instrument was done and the data collected was analyzed through regression analysis.

***i. Reliability Analysis:***

To do the study, the questionnaire was developed and it is highly essential to check the reliability of the items which are used to make the questionnaire. There were 21 items in the questionnaire. To do the reliability analysis, the Cronbach's alpha was done. The results are as below:

**address ESL Learning**

The above results show that the Cronbach's Alpha is 0.934, which is in the excellence zone. This means that the items which are included in the questionnaire are extremely reliable

**ANALYSIS AND INTERPRETATION**

After obtaining the data from the data collection tools, different procedures were applied to analyze the data, and the results are illustrated below.

**REGRESSION ANALYSIS:**

Regression Analysis articulates which Hypothesis to accept and which to reject. So, in order to check whether the hypothesis which we made are accepted or rejected, we need to do the complete regression analysis of all the hypothesis

one by one. We can also check the complete statement as well, i.e., to check whether our study has been rejected or accepted as a whole.

To check the hypothesis, we applied regression analysis on the data, and received following results:

**H<sub>1</sub>: IT TOOLS HAVE A POSITIVE IMPACT ON THE LEARNING OF THE STUDENTS OF ESL CLASSES:**

**Table 2: Regression Analysis: Model Summary<sup>b</sup> for H1**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.491 <sup>a</sup>	.185	.183	.18697	1.818

**Table 3: ANOVA<sup>a</sup> for H1**

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	10.614	6	1.769	50.603	.000 <sup>b</sup>
Residual	114.836	3285	.035		
Total	125.449	3291			

p<0.05

In the **table 2**, classic results reveals the **R** square value is 0.185 this signifies that the IT tools have an 18.5% effect on the learning of the ESL students, which is very high. We need to apply ANOVA as well, so that we could check whether this has any significant effect on the learning or not. **Table 3**, shows the value of **p** or Sig. is 0.000 which is way below 0.05, so it is in a significant level. The results show that we

accept the Hypothesis that ICT tools have a positive impact on the learning of students of ESL classes.

**H<sub>2</sub>: TEACHERS' UNDERSTANDING OF THE ICT TOOLS HAS A POSITIVE IMPACT ON THE LEARNING OF THE STUDENTS OF ESL CLASSES.**

Following is the Model summary for the second hypothesis as under:

**Table 4: Model Summary<sup>b</sup>: H2**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.561 <sup>a</sup>	.105	.103	.13577	1.618

**Table 5: ANOVA<sup>a</sup> for H2**

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	10.614	6	1.769	43.603	.000 <sup>b</sup>
Residual	104.233	3285	.035		
Total	105.439	3291			

p<0.05

**H<sub>2</sub>**: The results of **table 4**, indicate that the **R** square value is 0.105 this shows that Teachers' understanding of the IT tools have a 10.5% effect on the learning of the ESL students. We need to apply ANOVA on it, so that we could check whether this it has any significant effect on the learning or not. **Table 5**, shows the value of **p** or Sig. is 0.000 which is way below

.05, so it is at a significant level. The results show that we accept the Hypothesis that ICTs tools and their understanding by teachers have a cohesive effect on the student's learning.

**H<sub>3</sub>: TEACHERS' METHOD OF TEACHING, THE MODEL SUMMARY OF THE HYPOTHESIS IS AS UNDER**

**:Table 6: Model Summary<sup>b</sup>: H3**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.430 <sup>a</sup>	.201	.202	.11533	1.633

**Table 7: ANOVA<sup>a</sup> for H3**

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	10.614	6	1.709	43.603	0.080 <sup>b</sup>
Residual	99.233	3105	0.035		
Total	109.439	3111			

p<0.05

In **table 6**, the classical sum-upreveal the **R** square value of 0.201 that suggests the teachers' method of teaching have a

20.1% effect on the learning of the ESL students, which is very high. We need to apply ANOVA as well, so that we

could check whether the teacher's method of teaching has any significant effect on the learning or not. **Table 7**, shows the value of **p** or Sig. is 0.080 which is way above 0.05, so it is not in a significant range. The results reveal that the Hypothesis is rejected, and teachers' method of teaching has no significant effect on the student's learning of ESL classes.

**H4: STUDENTS' ATTITUDE TOWARDS LEARNING THROUGH ICT TOOLS HAS A CONSTRUCTIVE EFFECT ON THE ESL LEARNING.**The model summary of this hypothesis is as under

**:Table 8: Model Summary<sup>b</sup>: H4**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.330 <sup>a</sup>	.188	.190	.01533	1.823

**Table 9: ANOVA<sup>a</sup> for H4**

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	3.614	6	1.743	43.603	.000 <sup>b</sup>
Residual	109.233	3105	.035		
Total	112.439	3111			

p<0.05

**;Table 10: Model Summary<sup>b</sup>: H5**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.030 <sup>a</sup>	.021	.024	.01335	1.032

**Table 11: ANOVA for H5**

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	5.614	6	1.443	32.603	.000 <sup>b</sup>
Residual	102.233	3105	.035		
Total	107.439	3111			

p<0.05

Results of **table 8**, indicates the R square value of 0.188 that suggest student's attitude towards learning through ICT tools has 18.8% effect on the learning, which is very high. We need to check the ANOVA to see any significant effect on the learning. **Table 9**, shows the value of **p** or Sig. is 0.000 which is way below 0.05, so it is at a significant level. The results show that we accept the Hypothesis that students' attitude towards learning through IT Tools have a definite effect on the student's learning process of ESL classes.

**H5: STUDENTS' PAST EXPOSURE TOWARDS ICT TOOLS OF ESL CLASSES, THE MODEL SUMMARY IS AS UNDER**

The outcome in **table 10**, narrates the **R** square value of 0.021 that indicates the students' past experience towards ICT tools a 2.1% effect on the learning of the ESL students. We apply ANOVA on it to check any significant effect on the learning. **Table 11**, shows the value of **p** or Sig. is 0.000 which is way below 0.05, so it is at a significant level. The results show that we accept the Hypothesis that students' past exposure towards ICT Tools has a positive impact on the learning of students of ESL classes.

**H6: ICT BASED CURRICULUM EFFECT ON THE LEARNING, THE MODEL SUMMARY IS AS UNDER;**

**Table 12: Model Summary<sup>b</sup>: H6**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.230 <sup>a</sup>	.221	.226	.01335	1.890

**Table 13: ANOVA for H6**

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	5.614	6	1.443	32.603	.000 <sup>b</sup>
Residual	112.245	3105	.035		
Total	117.439	3111			

p<0.05

The results of **table 12**, reveals that the R square value is 0.221 which means that the ICT based curriculum have a

22.1% effect on the learning of the ESL students. We need to apply ANOVA on it, so that we could check whether it has

any significant effect on the learning or not? **Table 13**, shows the value of **p** or Sig. is 0.000 which is way below 0.05, so it is in a significant level. The results show that we accept the Hypothesis ICT based curriculum have a significant effect on the students' learning process.

## DISCUSSION

As explained earlier, it is important to check whether the system, which is introduced, is rendering betterment of the society and the people around or not. So, when we talk about the ICT introduction to the teaching of ESL learning in Pakistan, we need to check certain variables to see whether those are working or not, and those are working, which variables are making more impact and which are not making any impact. To keep this in mind, the study was brought up in Primary schools in Pakistan and the results were encouraging. From the research study, we tend to gather that the ICT tools have made good progress in the learning abilities of the students of ESL classes. The students are more active and showing good results. The study has not only seen the impact of ICT tools, but also the teachers' understanding and their method of teaching through its tools. The results of the study have shown that the teachers' understanding is making a positive impact, but their way of teaching is not helping the cause. This may be because lack of proper training and acts as a barrier in imparting effective learning. They understand the concept and know the IT tools well, but they are unable to utilize those tools, which is one of the areas of concern for the higher authorities? They should work on this, in order to get full benefits from the technology in coming years.

Another important variable is attributed to the students, who are real beneficiaries of the technology of ESL learning. The study focused on their attitude and their past exposure towards the technology. The results are very encouraging as the students' attitude is very positive in learning about the new technology and the past exposure is also helping them in learning ESL through technology. The study suggests, keeping in mind the current trend of the student's learning, that different subjects can be taught to them using the technology because they are getting good results after being taught with the help of technology and justifies the findings of (McCabe, et al., 2008).

The Curriculum is also taken as a variable to check the impact. The ICT based curriculum has a positive impact on teaching the students through the ICT. The impact is not only positive, but it is very significant which is very encouraging. The study suggests that the higher authorities should embark on making the entire curriculum on the basis of ICT so that the technology can be used for teaching all the subjects.

## CONCLUSION

In the backdrop of different studies on this subject all over the world, this study takes the spotlight on Asia and especially in the primary schools in Pakistan. Pakistan is one of the countries where ESL is taking huge leaps and it is really important making it as efficient as possible. To make the learning efficient and effective, the introduction of technology was a step taken by the authorities to see whether it paid off or not. The study encompasses four important

variables, i.e. ICT tools, Teachers, Students and curriculum. The cohesive hypothesis were made and checked after collecting the data with the help of questionnaires. Five hundred (500) students were chosen for the questionnaire and the data received was analysed by SPSS 21. The regression analysis showed encouraging results as almost all the hypothesis were accepted except one, i.e., a teachers' way of teaching through the ICT tools. The only reason why this hypothesis were not accepted is that the teachers were not given proper training to teach through the ICT tools. If proper training is imparted to the teachers and some investment is made in this area, the results could be extremely encouraging. The study suggests an extensive training to the teachers regenerating the use of ICT tools for actual teaching.

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