

## Constructivism and Computer-Mediated Communication in ESL Class in Pakistan

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### Abstract

*Recently, speaking has played an increasingly important role in second/foreign language settings; however, in many Pakistanis schools, students hardly communicate in English with other people effectively owing to their educational system. The present study aims at investigating the implementation of e-learning for constructive role plays and its effect on Pakistani students' speaking skills in college English classes. Speaking pre-tests and post-tests, students' role play recording analysis, students' questionnaires, and students' interviews have been employed to collect data during the six weeks teaching period. Results show that the e-learning and role plays have constructive effects on student's performance in speaking skills in terms of language fluency and accuracy. Furthermore, all students express positive opinions towards the e-learning implementation of constructive role plays. The findings of this study are directly beneficial to all ESL teachers.*

**Keywords & Phrases:** *E-learning, Constructivism, Role Play*

### 1. Introduction

Speaking skill is the most important language skill in ESL settings. However, in Pakistan, it is very difficult for students to communicate with other people in English effectively. This situation of English learning is known as "dumb English". Dumb English refers to the situation when students want or need to communicate in English but they cannot perform the task successfully due to such possible reasons as anxiety, hesitation and lack of effective communication skills in English. This situation is faced by most of the students in Pakistan, because many students of Pakistan can take their college exams with the help of rote learning, plus they can become good test takers, but they lack communication skills because they do not know how to utilize that language in real life situations. They cannot differentiate between use and usage of the language. English is learned as a compulsory subject in schools in Pakistan but our students rarely speak English in their daily lives. Nevertheless, in order to take part in international seminars, or present research papers at international conferences, situations which students may eventually encounter in their academic and/or working lives, they do need to be able to give oral presentations and discuss with other people in English, here with the help of rote learning they can deliver their presentation, but in question answer session they feel shy and hesitant. Therefore, being able to speak English efficiently has a particular importance to Pakistani students and thus also to the L2 learning and teaching processes. Continual attention must, therefore, be given to the processes of learning and teaching English to the students in Pakistan. In order to develop English learning and teaching in Pakistan, computer-assisted language learning (CALL) is one plausible way to improve the situation. Computer technology is nowadays becoming more and more prevalent in many aspects of people's lives. The development of computer technology and the Internet has become the trend in language learning and teaching.

In this light, computers for e-learning have been introduced to some government schools in Pakistan, but according to the School curriculum requirements and because of computer illiterate

teachers; this programme has faced many hurdles and opposition as well. Nonetheless, luckily with the help of some enthusiastic and energetic teachers, the plan became quite successful. E-learning has been developed for online EFL courses where students can be engaged in self-study with the help of instructor. Moreover, it could also be incorporated into a traditional classroom setting to assist instruction and learning; however, in the beginning learning does not function properly in supplementing EFL speaking classes. From students' evaluation, the problem of the student's e-learning rests with its behaviorist nature, especially in the speaking section. It involves such speaking activities as behaviorist role-playing, recording and comparing, and listening and retelling, which require students to repeat the speaking materials over and over again. Students reported to losing interest in doing behaviorist role plays and they pay less attention to practicing their speaking. Therefore, it is necessary to develop and implement new kind of role plays in the speaking classes. Hence, constructive role plays could play a role to improve students' L2 speaking.

## 2. Literature review

Constructivism is a psychological theory of knowledge which argues that humans construct knowledge from their experience. In parallel with the development of computer technology, the constructivist view of language learning and teaching is applied and incorporated as one major theoretical framework for CALL pedagogies and development. Bonk and Cunningham (1998) pointed out that "the blending of technological and pedagogical advancements has elevated the importance of research on electronic learner dialogue, text conferencing, information sharing, and other forms of collaboration". Active and collaborative construction of knowledge instead of knowledge transfer from one person to another (Cobb, 1994; Jonassen, 1994; O'Malley, 1995; Schank & Cleary, 1995), engagement in contextualized authentic tasks as opposed to abstract instruction, and less controlled environments versus predetermined sequences of instruction where "conditions for shared understanding" are created and "alternative solutions and hypothesis building are promoted through learners' interaction.

From the educational point of view, CALL is closely related to many aspects of second/foreign language learning and teaching. CALL is administered not only as a teaching method but also as an effective tool to help teachers in language teaching, and to promote learners' interactive learning as it can be employed in many ways, and both in and out of the classroom. The implementation of CALL in a college English class, all over the world, shows that it provides a constructive language learning environment to students and can improve students' interest in learning English. It is noticeable that in an ESL speaking class, the use of computer as a teaching tool has a significant effect on enhancing learners' motivation (Bax, 2003). The recommendations on the use of CALL are provided to create self learning and learner-centered consciousness for both learners and teachers, which can motivate learners to practice more by actively constructing new knowledge instead of passively accepting what teachers teach. And E-learning has become the main trend in CALL because of its technicality, practicality, diversity, and interactive nature. Learners can access the Web to go through sequences of instruction to complete the learning activities, and to achieve learning outcomes and objectives (Ally, 2002). According to Dawley (2007), e-learning can encourage learners to seek information, evaluate it, share it collaboratively and, ultimately, transform it into their own knowledge.

### **2.1 Constructive Role Play in E-Learning**

Naidu and Linser (2000) pointed out that constructive role plays increase motivation. Brown and Yule (1995) also highlighted the positive role of constructive role play in ESL setting. Constructive role play can help students become more interested and involved in classroom learning by addressing problems, and exploring alternatives and creative solutions in terms of not only material learning, but also in terms of integrating the knowledge learned in action. These kinds of activities encourage students to engage in ESL speaking freely and creatively, as well as to explore options through the creative use of language. The incorporation of constructive role play activities into the ESL classroom adds variety, a change of pace and opportunities for a lot of language production, and also a lot of fun. In this study, constructive role plays refer to speaking activities.

### **2.2 Scaffolding as Teaching Support**

Scaffolding is a term given to the provision of appropriate assistance to learners in order that they may achieve what alone would have been too difficult for them. Scaffolding is a good way to provide comprehensible input to ESL learners so that not only will they learn essential subject content but they will also make progress in their acquisition of English. Chaiklin (2003) claimed that through the use of scaffolding provided by a teacher, students can engage in interactive learning, and it has also been observed that learners are particularly dependent on scaffolding, because it helps learners understand why they are doing the work and why it is important. In this light, ESL learners greatly benefit from scaffolding.

## **3. Research Questions**

This study aims at investigating the implementation of e-learning constructive role plays on Pakistani second language learners' speaking in college English classes. To achieve this, the present study addresses the following research questions:

- 1) Does constructive role play improve the speaking ability of students with different levels of proficiency?
- 2) What are First-year ESL learners' opinions of the E-learning constructive role plays in their college English speaking classes?

## **4. Participants**

32 Intermediate level students enrolled in college were chosen to be the sample in the study. They were familiar with using computers. In addition, all of them had undergone basic speaking skill trainings from their schools. The students were classified into three groups in terms of language proficiency level – high, medium, and low.

## **5. Research Methods**

Table 1 below shows the instruments used in the present study: speaking pre-tests and Post-tests, student's role play recording analysis and students' questionnaires.

Table 1: Summary of research questions and instruments

	Research Questions	Instruments
1	1. Does constructive role play have any positive effect on Improving speaking performances of students with different levels of proficiency?	Pre-test and post-test Students' role play recording analysis
2	2. What are the First-year –English compulsory students' opinions on the e-learning constructive role plays in their EnglishSpeaking classes?	Students' questionnaires

In the 4-week research study, all 32 students were required to read five units of the book 'Getting on in English', 1 hour for the tutorial class and 1 hour for the computer lab class. In the one-hour tutorial class, all the participants in the experimental group and the control group studied the same textbook. After the tutorial class, students began the one-hour computer lab class to perform role plays. All of the students' conversations were recorded automatically by the e-learning system. The researcher implemented constructive role plays for the experimental group in the one-hour computer lab class. The constructive computer lab class provides the platform for students to practice speaking by interacting with their classmates actively. It is an interactive instrument for text presentation and learners' interaction. Students effectively construct new conversations based on what they have learnt from the tutorial class and from their previous studies. Instructions from the researcher were delivered to scaffold and to make sure students understood what they were going to do in the computer lab session. The researcher provided role play instructions before students began to act out the role play. After that, students began to act out 3 different role plays by actually interacting with their partners in the classroom using microphones and earphones for 30 minutes. Assistance and answers to students' questions were provided by the researcher while students were in the process of performing the role plays and the researcher offered feedback to students after they finished the role plays. All of the instructions, assistance, answers, and feedback served as scaffoldings which allowed students to pose questions and engage in interaction instead of sitting in front of the computer, reading the role scripts out, and recording the conversations.

Students began the 3 role plays by reading the role scripts out in front of individual computer for 30 minutes. The traditional computer lab class is simply a channel for manuscript presentation for the pre-described set of speaking materials. It provides the platform for students to practice speaking without interaction among them. Students came to class, sat in front of the computer and kept on reading the same speaking materials out from the screen. Students passively practiced speaking at a low cognitive level without scaffolding provided by the teacher. After the 4-weeks instruction, students in the experimental group and the control group were required to take the speaking post-test to determine the effects of the role play activities on their speaking performance. The post-test mean scores in the experimental group were compared to the scores of the control group. The data obtained from the pre-test and the post-test scores were used for further quantitative analysis. Students in the experimental group were required to do the questionnaires and interviews, and the data attained from these instruments were used for the qualitative analysis.

## 6. Results

After the 4-weeks experiment on implementing e-learning constructive role plays, and from the data analysis, the results of the study can be summarized in terms of:

- 1) Students' speaking performance
- 2) Students' language productivity
- 3) Students' attitudes towards the implementation of e-learning constructive role plays.

### 6.1. Speaking Performance

All of the 30 participants were post-tested. As shown in Table 2, from the paired Samples t-test analysis, the mean scores of the post-test of the two groups (Experimental/control) are 10.381 and 7.846 respectively.

Table 2: Comparison between the two tests scores between the experimental group and the control group

Group	Scores	Mean	SD	N	df	t	Sig.
EG*	Pretest	8.912	.8223	130	129	-18113**	.000
	Post-test	10.381	1.4895				
CG*	Pretest	7.835	.8454	130	129	-.199	.842
	Post-test	7.846	.7745				

\*EG: Experimental Group; CG: Control Group

\*\* t value of experimental group is significant at the 0.05 level (2-tailed)

In the experimental group, there is a statistically significant difference between the two speaking tests scores, significant at  $p = 0.000$ . However, in the control group, there is no statistically significant difference between the two speaking tests scores because the p value is higher than 0.05 ( $p = 0.842 > 0.05$ ). The mean scores of the pre-test and the post-test are nearly the same (7.846/7.835). In addition, in terms of different language proficiency levels, in the experimental group, from the paired samples t-test analysis, as shown in Table 3, the post-test mean scores, for each level respectively, is higher than the pre-test mean scores.

Table 3: Comparison between the two tests scores among high, medium and low proficiency levels in the experimental group

Proficiency level	Scores	Mean	n	df	t	Sig.
High	Pretest	10.536	14	13	12.022*	.000
	Post-test	12.786				
Medium	Pretest	8.918	97	96	16.331*	.000
	Post-test	10.546				
Low	Pretest	7.684	19	18	-5.091*	.000
	Post-test	8.447				

\*t values are significant at the 0.05 level (2-tailed)

From the data shown in Table 3, it is noticeable that students in the experimental group, at all language proficiency levels, displayed an improvement in their speaking performance. This result validates the answer to the first research question, that the e-learning constructive role plays have a positive effect on improving the speaking performance of students with different levels of language proficiency.

## 6.2. Language Productivity

In terms of language productivity, two types of language modification, word substitution and sentence variation, can be found from the language analysis of students' recordings in the experimental group, as shown in Table 4.

Table 4: Summary of students' role play recordings analysis

	Types of language modification	Average percentages*
1	Words substitution	82.3%
2	Sentences variation	77.0%

\* Note: The total number of students is 32.

82.3% of the students in the experimental group produced different words from the original conversations to perform the constructive role plays. However, students in the Control group did not produce much because they read the original role play scripts out. The examples were shown as follows:

Example 1	
Original role play	Constructive role play
Hi, my name is Pamela. <b>But</b> you can call me Pamy. It's nice to meet you, Pamy. My name is Sophia. <b>Nice</b> to meet you, too, Sophia. I'm a <b>new student here</b> . <b>What</b> about you? Me, too. I'll have my first class <b>today</b> What class is that? English <b>language</b> Oh, really? We're going to be in the same class! Oh, that's great!	Hi, my name is 000000. <b>And</b> you can call me 000000. Nice to meet you, 000000. My name is0000000  <b>Glad</b> to meet you, too, 0000000. I'm a <b>new student</b> here. <b>How</b> about you? Me, too. I'll have my first class <b>tomorrow</b> What class is that? English Language Class. Oh, really, I will be in the same class.  Oh, that's wonderful!

Original role play	Constructive role play
Pamela, what are you planning to do this Weekend? I haven't <b>made</b> any plans yet. You got <b>any good ideas</b> ? I want to <b>watch movie on this week end</b> Sounds <b>great!</b> And what do you think we will watch? We will see English movie I like Good idea!	0000000, what are you doing on this Weekend? I haven't <b>got</b> any plans yet. You got <b>Anything</b> ? I want to <b>be</b> away from the busy life <b>Movie onSunday?</b> We could invite you as well Sounds <b>good</b> And what do you think .We will go there? Good idea!

### 6.3. Students' Attitudes

All 32 students in the experimental group were required to answer the questionnaires after they finished their 4-weeks study. The results are presented in Table 4 below:

Table 4: Responses from Students' Questionnaires on the Likert-scale (N=32)

	Items	Strongly agree	Agree	No Idea	Disagree	Strongly Disagree
1	The teacher should give instruction before performing e-learning constructive role plays.	32	0	0	0	0
2	E-learning constructive role plays are enjoyable.	32	0	0	0	0
3	E-learning constructive role plays enhance learning process.	32	0	0	0	0
4	E-learning constructive role plays help me speak idiomatic English.	32	0	0	0	0
5	E-learning constructive role plays help me produce similar language easily.	32	0	0	0	0
6	E-learning constructive role plays improve my speaking in class.	32	0	0	0	0
7	E-learning constructive role plays enhance my motivation level.	32	0	0	0	0
8	E-learning constructive role plays should be given ample time in ESL classroom.	32	0	0	0	0
9	In the beginning I feel shy but later I overcome the situation.	32	0	0	0	0
10	I prefer reading out the script to acting the role out with a partner.	32	0	0	0	0

Data from the questionnaires suggested that majority of the students preferred working on e-learning constructive role plays in speaking classes. From item 1, the percentage of students who agreed that the instructions were necessary for them to get better understanding on how to carry out constructive role plays is 93.8%, with a significant difference among the agreement, indecisiveness and disagreement. From item 2, item 3, and item 4, 100% of the students agreed that e-learning constructive role plays were interesting. The data is quite significant and the process of learning to speak English was more interactive and enjoyable. All students showed agreement that e-learning constructive role plays provided them with useful information on how to speak English in a better way. The data also showed that e-learning constructive role plays enhanced their motivation level.

Moreover, all of the students agreed that in the beginning they were hesitant and they were very nervous and shy, but gradually they overcame, but at the same time they complained that they did not have much time to finish the task. It showed that for this kind of an activity students should have been given much time to accomplish the task. Students felt that they did not have enough time to finish the role play, because students found the role play exhausting and they lose interest in performing if the role play is too short or too long. So, the teachers should get students involved in role plays for between 5 and 10 minutes. Only in this way could students get enough training on how to effectively carry out e-learning constructive role plays within an appropriate time, because

the length of time spent in a role play may also influence its success or failure. All of the students reported that e-learning constructive role plays should be utilized more in speaking classes.

## 7. Conclusion

Based on the results and discussion from the speaking pre-test scores, post-test scores, students' role play recording analysis and students' questionnaires, it can be concluded that e-learning constructive role plays have positive effects on improving the speaking performance of students at various language proficiency levels. Students performed well and they applied the knowledge actively and successfully. Furthermore, most of them were in the favor of scaffolding; because scaffolding on how to carry out e-learning constructive role plays is essential and necessary because it helps students understand the tasks better before they start the role plays. Interaction with each other is another indispensable element to promote learner-centered learning. Students are the center of the whole learning and teaching process, and e-learning constructive role plays can motivate students to be actively engaged in the process of learning to speak English. They enthusiastically apply as much knowledge as possible from their previous studies to construct new knowledge. Students actively explore the knowledge instead of passively accepting it. The teacher becomes a study helper instead of a lecture giver. It is helpful in creating an active, interactive and constructive learning environment for students to practice their L2 speaking.

Role play is a useful activity that can be utilized to help students with their L2 Learning. Furthermore, constructive role plays make students become more interested and get involved in classroom learning not only in terms of the teaching material, but also in terms of integrating the knowledge learned in action. Thus Computer-assisted language learning and e-learning have become increasingly useful in second/foreign language learning. The application of CALL in speaking classrooms can increase the classroom information capacity, enlarge the language input value, and also provide more opportunities, to learners, for language practice and, as a part of CALL, e-learning has the potential to impact positively on speaking classes. Constructive learning theory with an emphasis on the active role of the learner in building understandable information can be applied in constructing interactive knowledge and in developing the learning process. Teachers can improve the quality of students' English practice by encouraging them to generate a variety of responses, rather than the usual set and prescribed responses to a situation that a role may demand. This means students can be actively involved in the whole learning process by gathering and summarizing speaking knowledge from what they have learnt before and generating new speaking knowledge for their future use. So, from the results and discussions of the present study, the e-learning constructive role plays do have positive effects on improving students' L2 speaking, and, students agreed that the e-learning constructive role plays should be practiced in speaking classes.

## 8. Pedagogical Implications

The present study aims at investigating the implementation of constructive role plays via e-learning on ESL learners' speaking in college English classes. Some Pedagogical implications can be concluded as follows:

First, from the results of the study, it can be found that the appropriate integration of CALL and Internet technology is essential to the success of ESL speaking, learning and teaching. In addition, it is important to implement a constructivist learning model in college English study, because



students can actively participate in the whole learning process instead of passively accepting what the teacher teaches. The findings from this study are directly beneficial to other language teachers aiming at developing students' L2 speaking abilities.

Second, the present study contributes to the understanding of CALL, e-learning, and constructivism in the Pakistani context, which is necessary because the new Pakistani education system emphasizes the shift from studying for examinations to quality education. The present study provides some insights into how constructivism and e-learning could possibly be effectively used to help Pakistani students' learn to speak English, which is also in line with the reformation of college English learning and teaching. Future research studies could be conducted to examine how constructivism, CALL, and e-learning can help students construct new knowledge in college English classes in terms of all the four language skills.

Third, the present study has explored the effectiveness of the change from teacher centered instruction to student-centered learning. Based on the previous discussions, currently, students are at the center of the whole process of English learning and teaching, and the teacher's role has been changed. According to the constructivist point of view, it is the learner who actively participates in the process of problem-solving and critical thinking regarding a learning activity, which they find relevant and engaging. The emphasis should be placed on the learners rather than on the teachers. So future research studies may continue to investigate how a constructive learning environment and e-learning both can provide effective learner-centered learning. However, this study is not generalized to all areas of EFL speaking, learning and teaching since the aim of this study is to investigate the process of implementing e-learning constructive role plays and how it can benefit students' learning to improve their L2 speaking.

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