Improving Pakistani College Students' Speaking Skills Using AI-Driven Linguistic Input: An Experimental Study

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Abstract

The primary goal of teaching English to ESL students is to equip them with the linguistic skills necessary for effective communication in real-world situations. However, in Pakistan, English language education often fails to yield positive outcomes, particularly in developing speaking skills among college ESL learners, largely due to an examination system that prioritizes rote memorization over practical language use. A major contributing factor is the insufficient linguistic input, which limits students' ability to produce meaningful linguistic output, such as speaking. Despite extensive research, improving speaking skills in ESL learners remains a challenge though few innovative teaching methods have been widely adopted. This experimental study explores the impact of AI-based applications, specifically 'Readlee' and '@Voice Aloud Reader', as tools for enhancing linguistic input through reading and listening. Fifty college ESL students were randomly divided into control and experimental groups. The experimental group received a regular reading and listening input through AI-powered apps for 32 weeks, while the control group only read from their textbooks without the aid of AI-powered apps. Pre- and post-test scores were analysed using SPSS and t-tests. The findings revealed that participants in the experimental group exhibited significant improvement in speaking proficiency compared to the control group. This study highlights the potential of AI-driven tools in fostering speaking skills of college ESL learners and recommends their integration into ESL instruction for more effective language learning.

Keywords: Speaking Skills, Experimental Study, Pakistan Youth, Artificial Intelligence.

Introduction

English being a lingua franca plays a vital role in global communication. Though all language skills are important in language, the role and value of 'speaking' in a language is most prominent (Rao, 2019). It is through speaking that social communication is enacted. Speaking is considered to be a macro skill that a language learner is desirous to develop for daily communication and social needs (Sosas, 2021). As far as teaching of speaking in ELT context is concerned, Kayi (2021) informs that it is taught through cramming and parroting in a way that certain drills are repeatedly practiced by the learners to learn certain sound patterns. But, teaching of speaking in the Pakistani ELT context calls for special attention because speaking skills are usually ignored. The key reason for this is the exam system which promotes rote learning and much attention is paid to writing skills as students only focus on seeking marks in the examination (Ali et al. 2020). Consequently, a large number of English language learners are unable to communicate in the English language even after learning English for a specific period (Gillani, 2004). So, it can be

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acknowledged that the teaching of English in Pakistan cuts a sorry figure because speaking and communication skills remain unlearned (Kiran. 2010). The key reason for students' failure to develop the required language skills is week or compromised linguistic input. According to Naviwala (2016), 75% of the Pakistani ESL students cannot read English because they are not engaged in reading activities which are vital to transmit linguistic input pertinent to develop speaking proficiency. Due to low or weak linguistic input, ESL learners face several challenges in developing speaking proficiency though the role of speaking in language is substantial (Ur, 1996). Thus, the situation indicates that Pakistani ESL learners need to be engaged in reading and listening activities for a regular linguistic input so that they may develop speaking proficiency. The current experimental study, therefore endeavours to experiment with AI-based Apps to provide AI-driven linguistic input to college English language learners to improve their speaking skills believing that the learners lack proper linguistic input which results in students' failure to improve linguistic output (Speaking and writing).

Literature Review

Speaking is taught through various tools, techniques and methods in the ELT arena and so far, several researches have been conducted in this area. Some of the important researches that focus on the teaching of speaking are reviewed to find the research gap:

Traditional Methods to Improve ESL Learners' Speaking Skills

Language teachers have been using different methods to improve the speaking skills of English language learners. Murad and Smadi (2009) indicated that task-based language teaching methods should be introduced in pre-service training of language teachers so that they might use this technique in their English language classes professionally. The teachers must be trained on how to incorporate task-based language teaching into their English language classes to improve learners' speaking skills. This practice is significant because the trainees in a pre-service training program can follow this technique in their lesson plans for practical implications. Moreover, Aiakbari and Jamalvandi (2010) also informed that 'Role Play' is an accepted technique in language teaching under task-based language teaching method because it proves useful in improving speaking skills and proficiency of ESL learners. Qing (2011) indicated that role play is one of the best methods to improve students' speaking skills because it offers them an opportunity to communicate in a type of real-life setting while ensuring intercultural awareness which is significant for the development of overall communicative ability among the ESL learners. Thus, it can be asserted that numerous studies recommended the use of 'Role Play' for improving speaking skills of the ESL learners.

Factors that Impact Speaking Improvement in Learners

According to Park and Lee (2005) anxiety and self-confidence impact learners' improvement in speaking performance. While observing 132 college students in Korea, it was found that students' anxiety levels directly impacted their performance in speaking. So, it can be asserted that anxiety level is a significant factor that might influence speaking performance. In a relevant study, Tanveer (2007) also indicated that language anxiety is a key factor that influences a student's efficiency to communicate in the target language. Thus, it can be asserted that learners' feelings of inconvenience, tension and worry may cause a serious hurdle in language acquisition in terms of learning speaking. MacIntyre, Clément, Dörnyei, and Noels (1998) investigated the effects of self-confidence on students' oral performance in ELT context and found that the students with better self-confidence level performed well as compared to those who had low self-confidence.

Lukitasari (2003) explored how students deal with speaking difficulties in their class while learning speaking at Muhammadiyah University in Malang, Indonesia. The findings of her study revealed that the students faced different problems in their speaking class including the influence of their mother tongue, poor involvement, inhibition, finding no words to speak and lack of vocabulary, grammar knowledge and pronunciation.

Boonkit (2010) explored the aspects that are effective in developing speaking ability in English language learners. He found that incorporating different speaking activities in a language class proved helpful in developing speaking skills in English language learners. These activities help learners overcome their anxiety and nervousness. The study actually highlights the importance of student's autonomy in topic selection while speaking in the class, indicating that if the learners are not forced to speak on a topic assigned by the teacher, they perform better. Prieto's (2007) research on the implementation of cooperative learning for teaching speaking is also very effective as it provides learners with a chance to learn from others through interaction. Moreover, the learner's liberty to choose a topic to speak also favours the learning of speaking skills as compared to the imposed topics.

Technology-Based Teaching to Improve ESL Learners' Speaking Skills

Thao (2003) indicated that the use of technology in teaching speaking enhances the learning potential among learners especially in English as second language (ESL) context because it focuses on a learner's improvement in speaking efficiency rather than helping them pass the examination only. Hong (2006) also postulates that the use of technology in the improvement of students' speaking skills cannot be denied in the EFL context as the use of Computer-mediated communication (CMC) helps students improve their pronunciation and communication skills because it is a practical way of using the target language. Thus, it can be indicated that using target language through computer technology while communicating with others is also a useful technique through which one can improve one's speaking proficiency. MacDougald (2009) also informs that the use of Information and Computer Technology (ICT) is considerably better than the traditional and conventional language teaching techniques because it is a practical medium of teaching English language skills. Moreover, Huang and Hung (2010) favour the use of an e-portfolio as a technology for improving students' speaking skills while enriching their knowledge on lexicon and oral skills. Thus, it can be asserted that the use of an e-portfolio technology is useful in ESL learners' speaking skills because it is acceptable by the students. While counting the advantages of using technology in language teaching, Ampa et al. (2013) inform that students' speaking can be honed through the use of multimedia technology under ICT because it proved very effective in reshaping students' speaking repertoire. The use of internet, podcasts, speech recognition software, videos and video conferencing for improving students' speaking skills was found to be very effective by Bahadorfar and Omidvar (2014). These tools have been broadly acknowledged by many teachers and scholars in ELT for improving learners' speaking skills. Rodrigues and Vethamani (2015) found that the use of technology ensures better self-confidence and language proficiency among the ESL learners while bringing positive and encouraging learning outcomes. Goh (2016) also stated that using technology to improve students' speaking skills is effective because fluency and accuracy in speaking can be improved using technology. Idayani & Sailun (2017) inform that use of technology is a source of modernizing language teaching because it enhances motivation and oral communication skills including speaking proficiency among the language learners. The trends to use technology for improving students' speaking skill further brought into vogue the use of video blogging as an effective technique to improve ESL learners'

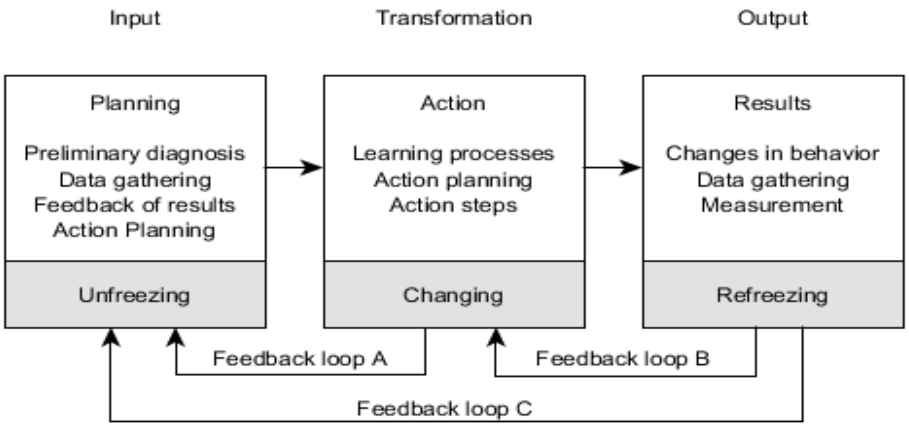
speaking proficiency. Rakhmanina and Kusumaningrum (2017) indicated that use of video blogging is helpful in improving students' motivation level to improve their speaking skills. Machmud and Abdulah (2017) informed that the students with low anxiety level scored better when they were taught speaking through smartphones but the same students were performing low when they were taught through the traditional method. Thus, it can be asserted that the use of technology is effective for teaching speaking in ELT scenarios.

A thorough sifting of the existing literature informs that a plethora of research is available in the arena of developing and improving speaking skills of ESL learners. Some of the researchers have explored the traditional and modern ways of teaching speaking skills whereas some others have investigated different notions like issues and problems ESL learners cope with while developing speaking skills. Some of the studies count the factors that are helpful in teaching and learning of speaking skills in ELT context around the world. However, the use of AI-Based applications for improving the transmission of linguistic input to ESL learners is a slightly less explored area. Thus, the current study endeavours to improve college students' speaking skills through AI-driven linguistic input as per the needs of the students.

Research Methodology

The current study followed an action research design based on three phases under which the whole research procedure was implemented. The research procedure in the present study can be understood through the following diagram:

Figure 1: Action Research



Source: Walace (1991)

The diagram indicates that in an action research the first phase is the phase of input in which there is planning which further includes activities pertaining to initial diagnosis and identification of the problem measuring its magnitude. This first phase is also taken as unfreezing of the phenomenon which is to be investigated. The current study followed a pretest of speaking to investigate the level of speaking proficiency of the college ESL learners before the treatment was implemented. The second phase in action research is the transformation phase which is actually a treatment period in which the action plan is implemented for students' learning and transformation. The current study followed 80 lesson plans to provide AI-driven linguistic input to the participants to

improve their speaking skills during the transformation phase. The third phase in action research is the phase to measure the output in form of learning outcomes. A post-test was conducted in the current research to monitor participants' progress after the treatment period.

Research Participants

50 ESL learners from a public sector college participated in this particular study. Since it was an experimental research, the partakers were equally divided into two groups (control and experimental) under random systematic sampling. The participants from the control group were required to complete 80 reading tasks through their routine textbooks whereas the experimental group participants were required to complete their reading tasks using AI-based apps namely Readlee and @ Voice Aloud Reader.

Data Collection

The research data were collected using pre and post-tests. Before the treatment period a pre-test was conducted. All participants took a speaking pretest in which they had to deliver short speeches on the assigned topics and they were also required to discuss specific topics in the form of a dialogue. Participants' voices were recorded and transcribed for further procedures. After the treatment period, a post-test was implemented so that the results could be compared with the pretest results to have an idea about participants' progress in speaking proficiency. So, pre and post-tests were the key sources through which the research data were collected.

Analyzing the Data

The research data were analyzed through quantitative techniques and descriptive statistics. Participants' scores in the pre-test were presented in tabular forms and the mean score of each group was presented through the table of scores. Then, the average score of each group was compared to have an idea which group scored better in the pre-test. The same procedure was followed for the post-test. Percentages and frequencies were sought through SPSS and were presented in tabular form. Pre and post-test scores of the participants were compared and analyzed through t-Test using SPSS.

Data Analysis

Quantitatively analyzed data through SPSS are presented in percentages and tabular form.

Short Speech Pre-Test (Experimental Group)

The following table presents the data regarding participants' performance in short speech pre-test from experimental group. Participants' performance in short speeches was measured through a scale prescribed by Verner (2017). Overall accuracy in short speeches was measured at four levels which range from 1- 4:

1. Meets expectations high
2. Meets expectations low
3. Slightly underperforms
4. Does not meet expectations

Table 1: Short Speech Pre-Test (Exp. Group)	
Participants	**Level of Accuracy**
1	3
3	4
5	4
7	4
9	4
11	3
13	4
15	3
17	4
19	3
21	3
23	4
25	3
27	4
29	3
31	4
33	3
35	4
37	3
39	4
41	4
43	3
45	3
47	3
49	4

Table 1 informs that not a single participant from the experimental group performed in the first two categories i.e. meets expectations high and meets expectations low. All participants performed within third and fourth categories i.e. slightly underperformed and doesn't meet expectations. However, the following figure further explains participants' performance in short speech pre-test taken by the participants from the experimental group.

Figure 2: Short Speech Pre-Test (Experimental Group)

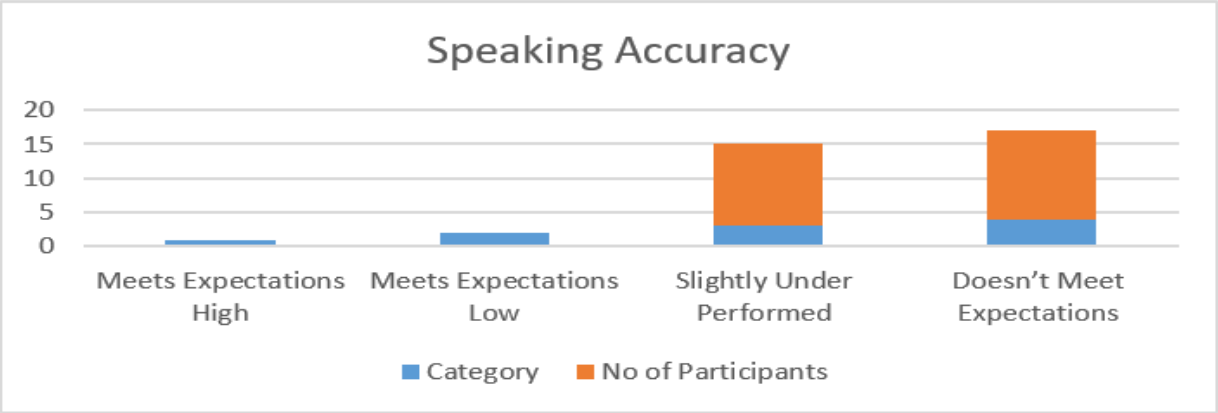


Figure 2 informs that 48% of the participants from the experimental group remained in third category i.e. 'slightly under performed' and 52% of them performed at level four i.e. 'doesn't meet expectations'. The situation indicated that all participants from the experimental group remained in the categories of lowest performance when their accuracy in short speech was measured.

Short Speech Post-Test (Experimental Group)

After measuring participants' English speaking proficiency through a pre-test, the participants were infused with linguistic input using AI-based apps so that they might improve their language ability and knowledge which enabled them to improve their speaking proficiency. After having a regular AI-driven input in the form of reading and listening to English text for a period of thirty two weeks, the participants from the experimental group showed the following results in a short speech post-test.

Table 2: Short Speech Post-Test (Experimental Group)

Participants	Level of Accuracy
1	1
3	2
5	2
7	2
9	2
11	2
13	2
15	1
17	2
19	2
21	2
23	2
25	1
27	2
29	2
31	2

33	1
35	2
37	1
39	2
41	2
43	2
45	2
47	2
49	2

Table 2 presents participants' performance in a short speech post-test taken by the experimental group. The data indicated that all of the participants from the experimental group performed at first two levels of the scale and none of them performed in third and fourth categories of the measurement scale indicating that the participants had a positive reinforcement throughout the treatment period. The following graph, however provides further details regarding participant's performance in short speech post-test:

Figure 3: Short Speech Post-Test (Exp. Group)

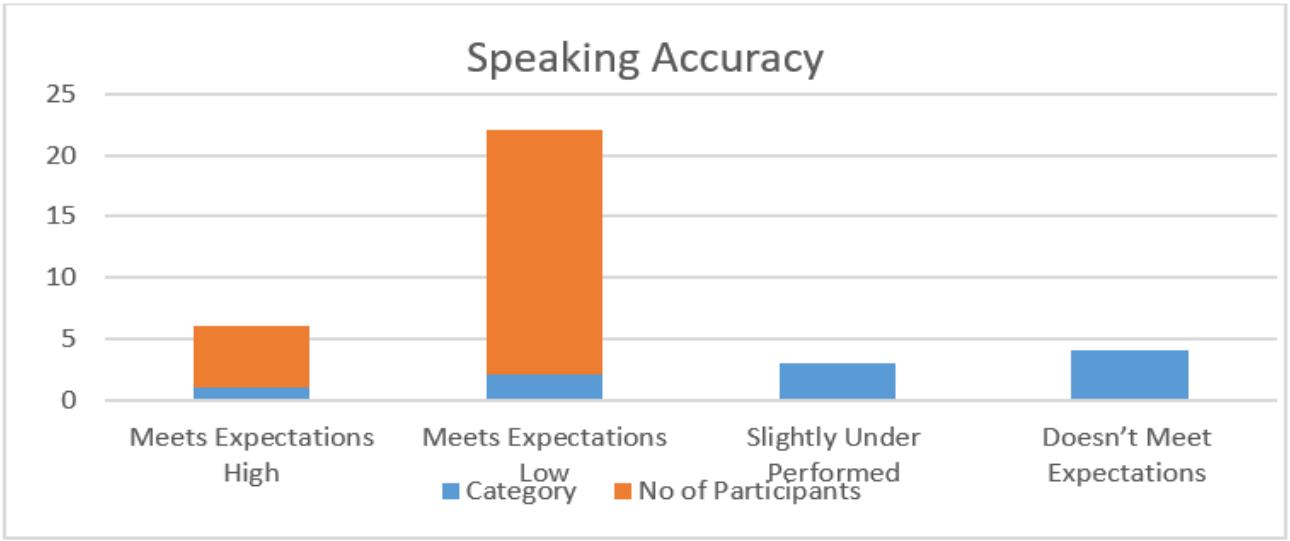


Figure 3 informs that 20% of the participants from the experimental group performed in the first category i.e. 'meets expectations high' whereas 80% of them could perform in the second category i.e. 'meets expectations low'. None of the participants from this group performed within the range of lowest categories indicating that all of the participants were at the advantage after the treatment period and AI-driven input had a significant impact on their linguistic output. Thus, it can be postulated that AI-driven linguistic input had a pivotal impact on participants' speaking accuracy during and after the treatment period.

Comparison of Speaking Accuracy Pre and Post-Test (Exp. Group)

Short speeches pre and post-tests were conducted to have an idea of the before and after performance of the participants in flourishing college ESL students' English speaking proficiency.

To measure participants' improvement in the speaking proficiency and accuracy, the codes of the scale used to measure speaking proficiency were converted into percentages so that the performance of the participant could be measured mathematically. The classification of participants' performance can be further understood through the following scale:

Figure 4: Classification of performance of participants

Category	Label	Perceived %
1	Meets expectations high	100%
2	Meets expectations low	75%
3	Slightly under performance	50%
4	Doesn't meet expectations	25

The following table compares participants' performance in both tests to indicate whether or not the treatment contributed to participants' improvement in English speaking proficiency.

Table 3: Comparison of Speaking Accuracy Pre and Post-Test (Experimental Group)

Participants	Pre-Test	Post-Test	% of Improvement
1	50%	100%	50%
3	25%	75%	50%
5	25%	75%	50%
7	25%	75%	50%
9	25%	75%	50%
11	50%	75%	25%
13	25%	75%	50%
15	50%	100%	50%
17	25%	75%	50%
19	50%	75%	25%
21	50%	75%	25%
23	25%	75%	50%
25	50%	100%	50%
27	25%	75%	50%
29	50%	75%	25%
31	25%	75%	50%
33	50%	100%	50%
35	25%	75%	50%
37	50%	100%	50%
39	25%	75%	50%
41	25%	75%	50%
43	50%	75%	25%
45	50%	75%	25%
47	50%	75%	25%
49	25%	75%	50%

Table 3 presents the comparison of participants' performance in pre and post-test of short speeches taken by the participants from the experimental group. The situation informs that 28% of the participants from the experimental group improved their speaking accuracy with the margin of 25% whereas 72% of them improved with the margin of 50%. The situation indicates that all of the participants from the experimental group improved their speaking proficiency by the margin of 25 to 50% indicating that the use of AI-driven linguistic input had a significantly positive impact on participants' improvement in English speaking proficiency.

T-Test Analysis of Participants Short Speech Pre and Post-Test Performance (Experimental Group)

Paired sample t-test was applied to pre and post-test results of participants' score so that the difference between the before and after results could be measured statistically. The output of paired t-test is presented through the following table:

Table 4: Paired Samples Test

Table: 4 Paired Samples Test for Speaking Accuracy (Experimental Group)

Overall Communication	Paired Differences					t	Df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Pre-Post-Test	-2.08760	.39493	.07899	-2.25062	-1.92458	-26.430	24	.000

The results of paired t-test indicated that the mean difference between before and after results was found to be 2.08760 which can be sufficiently considered significant. Whereas the standard deviation being .39493 can also be declared to be significant because it deviated from the mean significantly. Then, standard error mean and confidence interval also indicated a positive output which indicated a significant difference between pre and post-test scores of the participants. Moreover, the t-value -26.430 and p-value with .000 further favor the evidence that the t-value being significantly higher than the p-value informs that the difference between both variables is significant. Thus the results and findings of t-test tend to reject the null hypothesis i.e. "the difference between pre and post-test score is 0". To conclude, it can be asserted that the participants from the experimental group significantly improved their English speaking proficiency after having AI-driven linguistic input through AI-powered apps.

Short Speech Pre-Test (Control Group)

Pre and post-tests were conducted for the control group participants also. The participants from the control group were not given AI-driven linguistic input, instead they were asked to read through the textbook after the classes without using any AI-based apps. To analyses whether or not they improved their speaking skills after having linguistic input in the form of reading through the textbook, their speaking proficiency was tested through a pre and post-test of speaking. The next table presents the results of the speaking pre-test conducted for the control group participants.

Table 5: Short Speech Pre-Test (Control Group)

Participants	Level of Accuracy
2	4
4	4
6	4
8	4
10	3
12	4
14	4
16	4
18	4
20	4
22	4
24	4
26	4
28	4
30	4
32	4
34	4
36	3
38	4
40	4
42	3
44	4
46	4
48	4
50	3

Table 5 indicates that the participants from the control group only performed within the last two categories of the scale through which their speaking accuracy was assessed. The next figure provides the following details regarding participants' performance in the short speech pre-test:

Figure 5: Short Speech Pre-Test (Control Group)

Figure 5 indicates that the participants from the control group could not perform in the first two categories in the speaking pre-test.16% of the participants slightly underperformed that is category three whereas 84% of the participants from this group doesn't meet expectations i.e. is category four. Thus, the data informed that the participants from the control group could not meet expectations and were found to be in the lowest categories of the scale used for speaking assessment.

Speaking Accuracy Post-Test (Control Group)

Like the participants from the experimental group, the participants from the control group were also required to take a speaking post-test after the experiment phase so that their improvement in speaking skills could be measured. The next table presents details regarding participants' performance in the speaking post-test:

Table 6: Short Speech Post-Test (Control Group)

Participants	Accuracy Assessment
2	4
4	4
6	4
8	4
10	3
12	4
14	4
16	4
18	4
20	4
22	4
24	4
26	4
28	4
30	4

32	4
34	4
36	3
38	4
40	4
42	4
44	4
46	3
48	4
50	3

Table 6 informs that the participants from the control group could not perform in the first two categories i.e. 'meets expectations high' and 'meets expectations low'. All of the participants from the control group performed in the lowest category of performance in the speaking post-test. The details of participants' performance in the speaking post-test can be understood from the following diagram:

Figure 6: Short Speech Post-Test (Control Group)

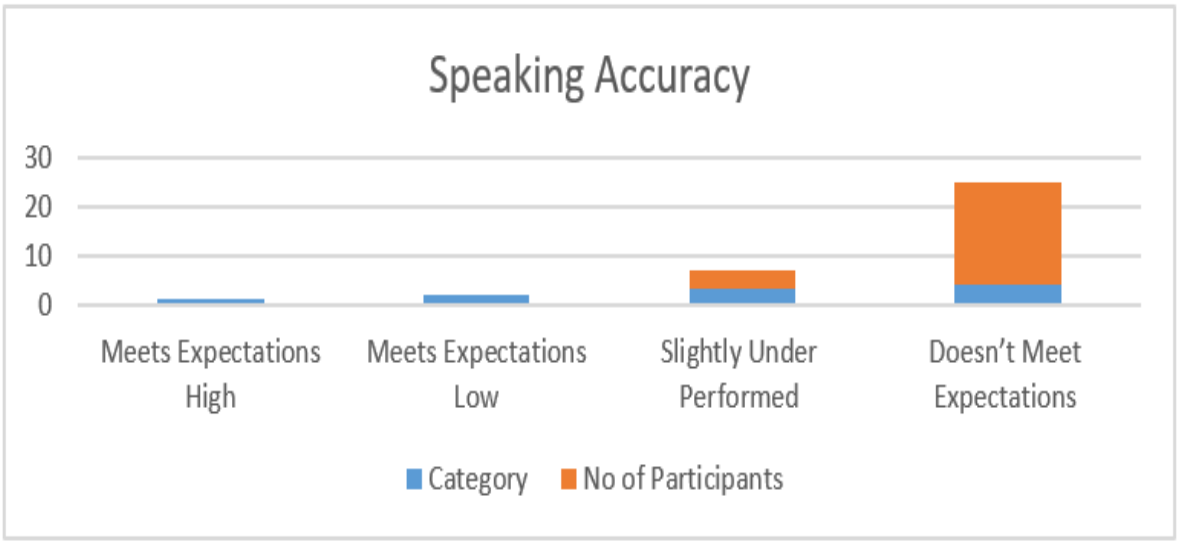


Figure 7 indicates that only 4 participants from the control group scored in category three i.e. 'slightly underperformed' in the speaking post-test. Whereas 21 of the participants from this group performed in the last category i.e. 'doesn't meet expectations'. Thus 16% of the students performed in the third whereas 84% of the learners scored in the fourth level of scores indicating that the participants from the control group could not reach any significant level of improvement in the speaking proficiency after receiving linguistic input through the traditional ways of teaching.

Comparison of Participants Performance in Pre and Post-Test (Control Group)

Participants' improvement in speaking proficiency was measured through the comparison of pre and post-test of speaking. Thus, the next table presents a comparison of participants' performance in both tests:

Table 7: Comparison of Participants' Performance in Pre/Post-Test (Con. Group)

Participants	Pre-Test	Post-Test	Percentage of Improvement
2	25%	25%	0
4	25%	25%	0
6	25%	25%	0
8	25%	25%	0
10	50%	50%	0.25
12	25%	25%	0
14	25%	25%	0
16	25%	25%	0
18	25%	25%	0
20	25%	25%	0
22	25%	25%	0
24	25%	25%	0
26	25%	25%	0
28	25%	25%	0
30	25%	25%	0
32	25%	25%	0
34	25%	25%	0
36	50%	75%	0.25
38	25%	25%	0
40	25%	25%	0
42	50%	25%	-0.25
44	25%	25%	0
46	25%	50%	0.25
48	25%	25%	0
50	50%	75%	0.25

The comparison between speaking pre and post-test results indicates that merely 16% of the participants from the control group could improve their speaking proficiency by 0.25% margin whereas 84% of the participants from this group could not make any significant improvement in their speaking accuracy and proficiency. Thus, the data showed that the partakers from the control group could not improve their speaking skills significantly after receiving linguistic input through reading textbooks in the traditional way of reading.

T-Test Analysis of Speaking Improvement (Control Group)

Participants' performance in pre and post-tests of speaking is compared through a paired t-test to have an idea about the difference in the average of improvement in speaking proficiency.

Table 8: Paired Samples Test

Table: 8 Paired Samples Test for Overall Communication (Control Group)

Overall Communication	Paired Differences					T	Df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Pre-Post-Test	-.06000	.14930	.02986	-.12163	.00163	-2.009	24	.056

The table informs that the variance in the mean of before and after tests is found to be -.06000 whereas .14930 is the standard deviation. Standard error mean is found to be .02986 making the confidence interval 0 which shows that the difference between both the variables is not weighty. Then, t-value is found to be -2.009 which is lower than the fixed level whereas the p-value being .056 is bigger than the common alpha level 0.05 rejecting the null hypothesis indicating that the difference between both tests is insignificant. Thus, it can be proclaimed that the participants from the control group could not expand their speaking proficiency by having linguistic input through the traditional reading modes.

Comparison b/w Both the Groups

Since both groups participated in pre and post-tests of speaking, the next table compares the level of improvement between both the groups to have an idea which of the groups improved more:

Table 9: Comparison of improvement in Accuracy b/w both the Groups

Observation	Experimental Group	Control Group	Group which Improved	Difference
Accuracy	100%	16%	Experimental	84%

Table 9 indicates that all students from the experimental group enhanced their speaking skills after receiving AI-driven linguistic input for a period of thirty two weeks. Conversely, only 16% of the learners from the control group could expand their speaking proficiency. Consequently, the results informed that the experimental group was at the advantage after receiving AI-driven linguistic input in comparison to the control group.

Findings, Discussion and Conclusion

The current study aimed at seeking an answer to the question "What is the impact of AI-driven input on College ESL students' development in speaking proficiency?" After an experiment of thirty two weeks, the study came up with the findings that the students from the experimental group who were given AI-driven linguistic input through reading and listening using AI-harnessed apps significantly improved their English speaking proficiency. In contrast, the students from the control group who were required to read the textbook at home without using AI-based apps for the

period of thirty two weeks, could not improve their speaking skills significantly. Thus, it can be postulated that the participants from the experimental group were at the advantage as the results of the study were in the favor of the use of AI technology for language teaching. The results indicated that AI-driven linguistic input favors the development and improvement of language output ensuring better speaking proficiency in students. So, the study informs that the older methods in ELT need to be replaced with newer ones which are technologically empowered and have a stronger impact on students' learning.

In the current study, the participants improved their pronunciation, fluency, accuracy and confidence because of using AI-tools. The findings of the study encourage ESL teachers and learners to opt the use of AI technology instead of traditional language teaching methods as they are outdated and weird. Now when every field is being revolutionized by the dint of AI-powered tools, English language teaching also seeks for a change which can be materialized through ELT teachers' shift from traditional to AI-enhanced language teaching. Garcia's et al (2023) study also confirms that using AI Chatbots for conversational practice is useful to improve speaking proficiency of second language learners. The results of Smith and Johnson's (2022) study are also parallel to the current study as they found that the use of AI-powered tool Voice Recognition System to improve students' pronunciation is effective. The current study also used two different AI-powered tools to improve students' pronunciation. The Readlee platform was used to read aloud the text and record the voice for assessment whereas @ Voice Aloud Reader was used for model reading so that the students might listen to the accurate pronunciation. So, it was found that the students who used these platforms, improved their pronunciation. Li & Chen (2017) also indicate that the use of AI-powered tools to improve pronunciation is effective in English language teaching. They investigated the impact of AI-based Pronunciation tutoring systems on speaking proficiency of ESL learners and found that the program was quite effective.

The key advantage of AI-powered tools is that they provide immediate and real-time feedback to the learners. As far as the results of the current study are concerned, it was found that the students would get quick feedback right after submitting their reading assignment. Through this platform they could know about their pronunciation mistakes which were highlighted through the app. Zhang & Wang (2018) also indicate that using AI-supported tools is effective in ELT. They examined the use of AI-Powered Virtual Language Assistants for Speaking Practice with encouraging results indicating that these systems are effective for language teaching as they provide real-time and quick feedback which is actually a basic need of a language learner for improving the level of speaking accuracy.

The results of the current study further confirmed that using AI-based Apps for enhancing students' speaking proficiency in terms of building confidence, enhancing motivation level, improving pronunciation, fluency, accuracy and overall communication skills is effective. Yin and Wei (2003) also favor the idea of using AI-powered tools for language teaching as they also found that the use of Intelligent Learning Systems to improve college ESL learners' listening and speaking skills is effective. The results of their research also proved that the students improved their pronunciation, fluency, pronunciation and grammatical knowledge after learning through artificial intelligence based learning systems which are in line with the findings of the present study.

References

- Ampa, A. T., Rasyid, M. A., & Rahman, M. A. (2013). The Implementation of Multimedia Learning Materials in Teaching English Speaking Skills. *International Journal of English Language Education, 1*(3), 293-304.
- Ali, M. M., Khizar, N. U., Yaqub, H., Afzaal, J., & Shahid, A. (2020). Investigating speaking skills problems of Pakistani learners in ESL context. *International Journal of Applied Linguistics and English Literature, 9*(4), 62-70.
- Aliakbari, M., & Jamalvandi, B. (2010). The Impact of" Role Play" on Fostering EFL Learners' Speaking Ability: A Task-Based Approach. *Journal of Pan-Pacific Association of Applied Linguistics, 14*(1), 15-29.
- Bahadorfar, M., & Omidvar, R. (2014). Technology in teaching speaking skill. *Acme International Journal of Multidisciplinary Research, 2(*4), 9-13.
- Boonkit, K. (2010). Enhancing the Development of Speaking Skills for Non-Native Speakers of English. *Procedia Social and Behavioral Sciences,2* (2010), 1305–1309.
- García, A., López, M., & Martínez, J. (2023). Improving Speaking Skills through Conversational Practice with Chatbots. *Journal of Language Education and Technology, 10*(2), 45-58.
- Goh, C. C. (2016). *Teaching speaking. In English Language Teaching Today* (pp. 143-159). Springer, Cham.
- Hong, B. T. M. (2006). Teaching speaking skills at a Vietnamese university and recommendations for using CMC. *Asian EFL Journal, 14*(2).
- Huang, H. T. D., & Hung, S. T. A. (2010). Effects of electronic portfolios on EFL oral performance. *Asian EFL Journal, 12*(2), 192-212.
- Idayani, A., & Sailun, B. (2017). Roles of Integrating Information Communication Technology (ICT) in Teaching Speaking at the First Semester of English Students oF FKIP UIR. J-SHMIC: *Journal of English for Academic, 4*(2), 12-23.
- Koşar, G. (2019). Does being taught by native English-speaking teachers promote improvement in speaking skill more? *Journal of Language and Linguistic Studies, 15*(3), 989-999. Doi: 10.17263/jlls.631542
- Li, M., & Chen, J. (2017). The Impact of AI-Based Pronunciation Tutoring Systems on Oral Proficiency Development. *Language Learning & Technology, 21*(3), 124-142.
- Lukitasari, N. (2003). Students' strategies in overcoming speaking problems in speaking class. *University of Muhammadiyah Malang*.
- Murad, T. M., & Smadi, O. (2009). The effect of task-based language teaching on developing speaking skills among the Palestinian secondary EFL students in Israel and their attitudes towards English. *The Asian EFL Journal*.
- McDougald, J. S. (2009). The use of information and communication technology (ICT) in the EFL classroom as a tool to promote L2 (English) among non-native pre-service English teachers. Unpublished Thesis). Leon: The University of Leon Press.
- MacIntyre, P. D., Clément, R., Dörnyei, Z., & Noels, K. A. (1998). Conceptualizing willingness to communicate in a L2: A situational model of L2 confidence and affiliation. *The modern language journal, 82*(4), 545-562.
- Machmud, K., & Abdulah, R. (2017). Using smartphone-integrated model of teaching to overcome students' speaking anxiety in learning English as a foreign language. *Journal of Arts and Humanities, 6*(9), 01-11.
- Naviwala, N. (2016). *Pakistan's Education Crisis: The Real Story.* Woodrow Wilson International Center for Scholars.
- Park, H., & Lee, A.R. (2005). *L2 Learners' Anxiety, Self-confidence and Oral Performance. Proceedings of the 10th Conference of Pan-Pacific Association of Applied Linguistics (pp. 107-208).* Edinburgh University, August 2005

- Prieto, (2007). Improving Eleventh Graders' Oral Production in English Class through Cooperative Learning Strategies. *Profile, 8,* 75-90. Bogotá, Colombia.
- Qing, X. U. (2011). Role play-an effective approach to developing overall communicative competence. *Cross-Cultural Communication*, *7*(4), 36-39.
- Rodrigues, P. D., & Vethamani, M. E. (2015). The impact of online learning in the development of speaking skills. *Journal of Interdisciplinary Research in Education (JIRE)*, *5*(1).
- Rakhmanina, L., & Kusumaningrum, D. (2017). The effectiveness of video blogging in teaching speaking viewed from students' learning motivation. *Proceedings of ISELT FBS Universitas Negeri Padang*, *5*, 27-34.
- Rao, P. S. (2019). The importance of speaking skills in English classrooms. *Alford Council of International English & Literature Journal (ACIELJ)*, *2*(2), 6-18.
- Smith, R., & Johnson, L. (2022). Enhancing Pronunciation with Voice Recognition Systems. *International Journal of Language Learning*, *8*(1), 112-125.
- Tanveer, M. (2007). Investigation of the factors that cause language anxiety for ESL/EFL learners in learning speaking skills and the influence it casts on communication in the target language. *University of Glasgow, Scotland*.
- Thao, V. T. (2003). The contribution of multimedia tools to EFL settings unfamiliar with technology. *Asian EFL Journal*, *5*(3), 1-14.
- Ur, P. (1996). *A course in language teaching* (Vol. 1, No. 998, p. 41). Cambridge: Cambridge university press.
- Yin, X., & Wei, Y. (2023b). Research on the construction and application of an intelligent learning system to enhance college English listening and Speaking. *Journal of Education and Teaching*, *1*(4), 39–45. https://doi.org/10.59825/jet.2023.1.4.39
- Zhang, S. (2009). The Role of Input, Interaction and Output in the Development of Oral Fluency. *English language teaching*, *2*(4), 91-100.