

Development of Multimedia for Improving English Listening Comprehension Skill for Grade-2 Students

Vipin Kumar Sheoran, Rajamangala University of Technology Thanyaburi, Thailand
Metee Pigultong, Rajamangala University of Technology Thanyaburi, Thailand

The Southeast Asian Conference on Education 2023
Official Conference Proceedings

Abstract

The research objectives were to 1) develop quality multimedia for improving English listening comprehension (ELC) skills for Grade students. 2) compare the learning achievement scores of students Pre-Post-Listening Test. 3) study the effectiveness index (EI) of learning achievement scores, and 4) study the students' satisfaction after using multimedia for improving ELC skills. The population consisted of 30 Grade-2 students of Plearnpattana School. A suitable teaching technique based on the student's level and multimedia and instructional videos (I-VDOs) were used for students' listening comprehension. The statistics used to analyze and interpret the data included mean (\bar{X}), Standard Deviation (S. D), Dependent t-test, and Effectiveness index (EI). The study found that after using multimedia with instructional videos to develop ELC skills for Prathom Suksa (Grade) 2 students, 1) The quality of Multimedia by experts achieved an overall mean score of 4.7, and the standard deviation is 0.35. 2) the post-test learning achievement score was higher than the pre-test score level at a statistically significant level of .05. 3) The effectiveness index was .733; in other words, students had higher post-test scores of 73.33%. 4) Student satisfaction found that 1) 90% of students liked the English lesson with multimedia at the end of this study. 2) Multimedia created Assurance of students and better performance in class.

Keywords: Multimedia, English Listening Comprehension (ELC), Instructional Videos (I-VDOs), Effectiveness Index (EI), Learning Achievement

iafor

The International Academic Forum
www.iafor.org

Introduction

Background of Statement

Education plays an important role in the personality development of an individual. Individual personality development further leads to the development of a society. The growth of a society or a country is not possible without education. Mahatma Gandhi once said, “By education, I mean an all-around drawing out of the best in the child and man.” The world today has more knowledge than ever before, but not everyone can benefit from it. Quality education is the foundation of sustainability. English as a secondary language (ESL) is an important medium of language around the world because of its worldwide acceptance and use. Therefore, the understanding and correct use of ESL is an important aspect of the present education system. From the four basic language skills (listening, speaking, reading, and writing) of any language worldwide, listening is the first skill all humans react to and use other skills for language development. At Plearnpattana school, we as teachers, constantly focus on the development of students and the curriculum. English being the second language in Thailand, is not widely spoken in daily life as well as in Thai schools, including Plearnpattana School. The main problem I would like to address from the above is “English Listening Comprehension (ELC) in the classroom.”

Every problem arises because of some reasons. Some students need help understanding English in the class and Thai translation. They need help to understand instructions. It has affected the students’ understanding of English in the class which results in the lack of confidence and participation in the class. As a result, the students are not able to perform the tasks or activities in the class. The students around the world who use ESL also face a similar problem because English is not their mother language. A researcher, Khalid I. Al-Nafisah (2019) asserted that the listening competency of students can be enhanced by several new techniques and students need to focus on listening instructions in class. Rost M. (2005) pointed out that listening is a complex cognitive process that requires the tasks of hearing the spoken texts correctly, constructing the perceptually distinct units of sounds into words and sentences, and explaining the speaker’s anticipated intention. Listening, lets one understand the world around us and is one of the necessary elements in establishing effective communication. The emergence of COVID 19 has changed education for ever. There is a rise in online learning or e-learning but it is harder for those without reliable internet access and struggle to participate in digital learning than school-based learning. Cathy Li and Farah Lalani (2020) at the World Economic Forum highlighted that the unplanned and rapid move to online learning with no training, insufficient bandwidth, and little preparation with result in a poor experience that is uncondusive to sustained growth in education. The online learning has brought in many challenges for the teachers and students. The Grade 2 students are not left behind with the challenge to understand the instructions in English. The ELC in the Online Classroom has become more challenging, because of many reasons such as students’ ability in understanding and comprehension of instructions, the pace of teachers’ speaking in the class or in an online class, network issues, etc. In an article published on UKEssays (2018), the author discussed the learning difficulties encountered by EFL students in English listening comprehension such as lack of control over the speed at which speakers speak, not being able to get things repeated, listener’s limited vocabulary, established learning habits, or listeners tend to stop listening when they hear unfamiliar words. As a result, many learners, particularly in the early stages of learning language learning, panic and lose their concentration.

Purpose

The main focus of this study is to develop and use multimedia including I-VDOs to improve their ELC skills that is suitable for students in the ESL classroom as well as online. Patel C. (2013) analyzed the necessity of multimedia technology to cultivate students' interest, to promote students' communication, to improve teaching effect, to improve the interaction between the teacher and students, to create a context for language teaching, and to provide flexibility to course content. Dwi Heriyanto (2018), mentioned that using Videos/YouTube in language learning and teaching can be considered as a valuable learning tool. The researcher would like to focus on the following research questions:

1. *How effective will be the multimedia that I develop for improving students' ESL listening skills?*
2. *How effective will be the comparison of the students' learning achievement scores?*
3. *What will be the students' satisfaction level after using the multimedia?*

Research Objectives

1. Develop quality multimedia for improving English listening comprehension skills for Grade students.
2. Compare the learning achievement scores of students between the Pre-Listening and Post-Listening Test for improving English listening comprehension skills.
3. Study the effectiveness index of learning achievement scores of the Pre-Listening and Post-Listening Test.
4. Study the satisfaction after using multimedia for improving English listening comprehension skills.

Conceptual Framework

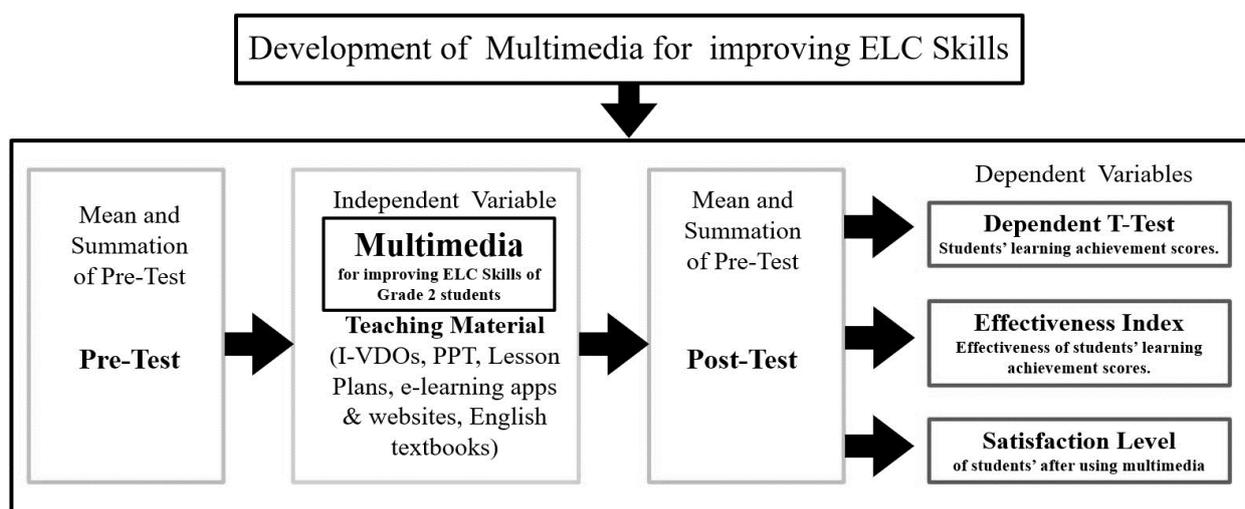


Figure 1- Research framework for the improvement of ELC Skills of G-2 students

Scope of the Study

The importance of multimedia I-VDOs is that it determines how successful students will learn. Students will always understand and be able to do the activity as expected by the teacher. I-VDOs can determine whether a lesson succeeds or fails. The scope or benefits of this study can be achieved even if English is taught as a second language as long as it is suitable

multimedia, I-VDOs with simple and clear instructions is implied in the classroom at the right level, better lesson plans, multimedia, materials, and curriculum are developed. The main challenges of using English as a medium of instruction are lack of students' proficiency in the English language, a lack of parental involvement, and a lack of English usage in daily life. The lack of students' understanding of English instructions can be narrowed down by using multimedia through simple, easy, and clear instructions through I-VDOs at the right level. The communication gap between teachers and students can also be brought down with the help of I-VDOs.

Literature Review

There is no spoken language without listening. Students feel lost if they do not comprehend the conversation. This is the reason why language learners lose their confidence, and request constantly for frequent repetitions of the spoken text. Khalid I. Al-Nafisah (2019) also reviewed the study done by Richards and Schmidt (2010) who defined listening comprehension as the process of understanding speech in the first or second language. that students must be furnished with proper learning resources and activities through which they can be trained how to listen and comprehend the English language. ELC is necessary to understand is being said and what is to be needed further. ELC skills need to be developed at younger age when students are in primary school. The earlier they are exposed to ELC, the better they will be. Picard. M and Velautham. L. (2016), concluded in their research that explicit instructions and careful linking of the activities to their experience are necessary to engage the learners. It will ensure that the learners can apply ELC skills daily.

Multimedia brings a series of benefits for educational institutions, educators and learners and is worth trying. With multimedia, teachers can better bridge the knowledge gap and help learners reach their maximum potential. Sejdiu S. (2017), claimed the use of multimedia as effective and authentic in helping learners listening skills in real-life context. He has further supported the use of multimedia tools as a matter of urgency for the teachers today. Erizar, Syahputra A., Hidayati T. (2019), findings have indicated that multimedia was useful and effective in making students understand English easily and it was convenient for teachers to use multimedia in English classes. Ogay M. (2020), has stressed on the use of multimedia in English classes because it improves the negative attitude towards learning ESL among young learners. As summarized by Tiedemann K.M (2020), students in today's classrooms are different than previous generations in how they learn, but educators do have the tools to meet the needs of today's students. We need to convert our traditional teaching material into digital form using Google Classroom, Zoom, MS-Teams, Google Meet, Youtube, etc. and deliver it to the students over the Internet. We have also to keep it mind we are still using technology and creating boredom for the students. A good balance between online learning and on-sight learning is the need of the hour.

Research Methodology

The learners were Grade 2, 30 students. It consisted of Students' Achievement Test for comparison of students' Pre-Post Listening Test, multimedia to improve the ELC skills of Grade-2 students, and Students' Satisfaction levels through students' AAR feedback form. The students' achievement scores and satisfaction levels were presented using X-Bar graphs on MS-Excel.

The learners' summative data, Pre- Listening Test in Term 1-Week1 and then their formative data, Learners' AAR data was collected for lesson plans in next consecutive five weeks, week 2 to week 8. Finally, another summative data in week 10, Post- Listening Test was conducted. The researcher conducted the study in the first semester of Thai, Academic Year 2022, overall, about 10 weeks.

The independent Variable consisted of Learning through the use of multimedia including I-VDOs with simple instructions, Power Point Presentation, Online websites or apps, etc. The multimedia was developed, validated by experts and used every week, consecutively for 10 weeks. For the content of my study, I have focused on developing multimedia that includes I-VDOs, PPTs, audios, flashcards, etc., a Constructive-Metacognitive Learning (CML) lesson plan as they will equip students with necessary vocabs, listening, and speaking skills that they use in their daily life. It will further help them to improve their ELC. The main highlight of the ESL classes for simplified instructions is I-VDOs. The following are the simplified instructions that were used in the class as well as in the I-VDOs:

Look and point / Point and say/ Ask and answer / Look at the pictures and match / Look and check / Guess and stick / Read and look / Look and read / Read, look and write / Read and underline / Read, write and circle / Look and write / Listen and say / Listen and point / Listen and choose / Listen and colour / Listen and circle / Listen and read / Listen and stick / Listen and number the pictures / Listen, read and sing / Listen to the song / Listen and draw lines /Listen and do / Listen and draw / Listen and compare / Talk and stick / Work in pairs / Work with a partner / Work in groups / Play a game / Take turns.

The quality of the multimedia content was calculated using Index of Item Objectives Congruence (IOC). The Pre-Post Listening Test was conducted in the first and the tenth week of the first term. And then summative, Dependent T-Test, comparison assessments were done to reflect the improvement. After collecting the summative data, I have organized it systematically according to the occurrence of events. The summative data from learners' Pre-Post Listening Test, which was of 10 points, was summarized on the scale of 1 to 4 points as follows:

1 point (understand the least)	=	5 (50%) or less out of 10.
2 points (understand a little)	=	6 (60%) out of 10.
3 points (moderately understand)	=	7 (70%) out of 10.
4 points (strongly understand)	=	8 (80%) or above out of 10.

An effectiveness index of learning achievement scores, a dependent variable was analyzed. The formula used to calculate Effectiveness Index (EI) to see the increase in the achievement score is the following:

$$EI = \frac{\text{Summary of Post-Test (P2)} - \text{Summary of Pre-Test(P1)}}{(\text{Number of students} \times \text{Max. Score}) - P1}$$

Another dependent variable, Students' Satisfaction Survey was are required to be filled up after each lesson with multimedia to record their feedback. The evidence was collected for 10 weeks in the first term which highlights if students can understand the instructions/lesson. The students' feedback was prepared on the basis of Likert Scale, developed by renowned psychologist Rensis Likert (Wikipedia, 2022), which is a type of scale used to measure the learners' opinion towards a particular, here in it is s understanding of learners' ELC skills. I

have utilized four-point Likert Scale because I would like to force my students to form an opinion, either way without being neutral on the topic.

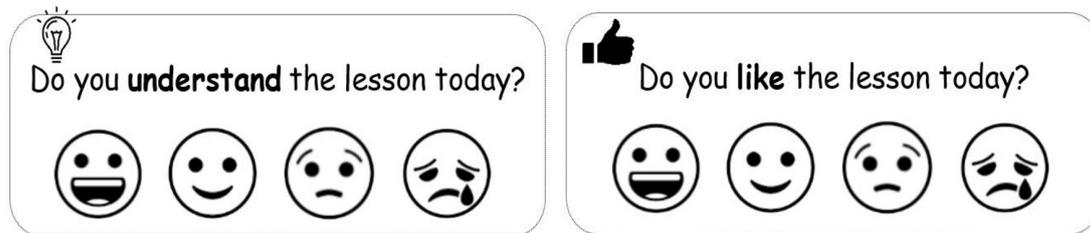


Figure 2- Grade 2 Students' understanding and satisfaction level feedback

I have used the learners' feedback in figure 2 with four choices, a very happy face: understand instructions the most, a happy face: *understand instructions well*, OK face: *understand instructions a bit*, a sad face: *do not understand at all*. The formative data from learners' AAR was also summarized on the same scale of 1 to 4 points which is as below:

1 point	=	strongly dislike/understand the least
2 points	=	moderately dislike/understand a little
3 points	=	moderately like/moderately understand
4 points	=	strongly like/ strongly understand

After encoding the scores of collected data in MS- Excel, I prepared a bar graph, clearly showing the percentage of learners' data in four colours as mentioned below:

Blue-1 point	=	strongly dislike/ understand the least
Red-2 points	=	moderately dislike/ understand a little
Green-3 points	=	moderately like/moderately understand
Purple-4 points	=	strongly like/ strongly understand

Research results

The results of the implementation of the action are presented as the following:

1. Independent Variable: The quality of the multimedia and its English content was assessed and validated by the experts were calculated using Index of Item Objectives Congruence (IOC). As seen in the figure-3 below, the overall mean percentage rating of the six experts was at 94.67% who strongly agreed that the multimedia and English content was suitable for the Grade-2 students. The mean score was 4.73 from the maximum of 5. It suggests that the developed media is of good quality and the content was suitable for Grade-2 students.

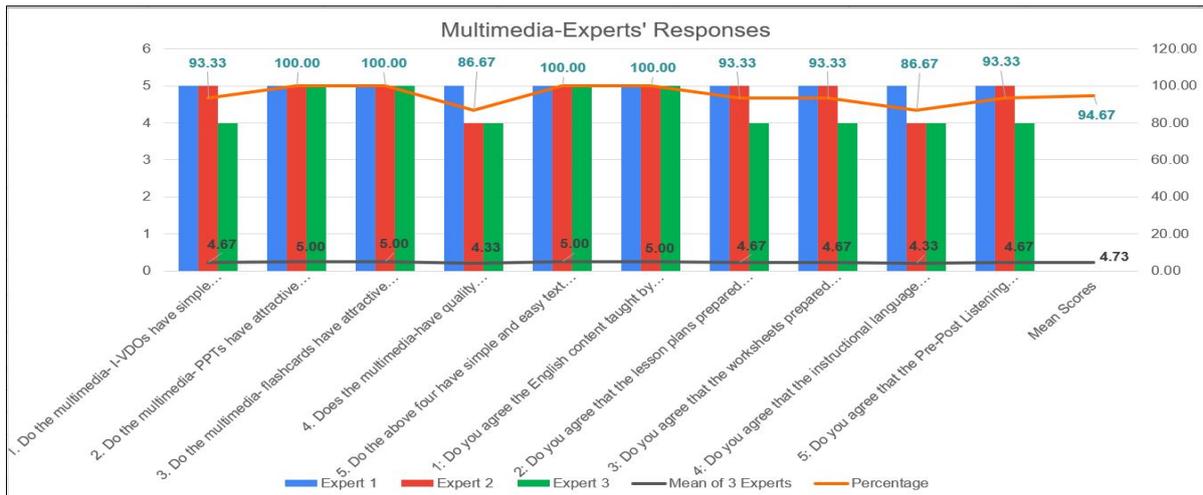


Figure 3: Individual expert rating showing the mean scores and percentage

The following Table-1 represents the raw scores of each expert, their mean score, mean percentage, and standard deviation. The overall mean score of 6 experts is 4.73, mean percentage is at 94.67, and the mean standard deviation is 0.35. All experts strongly agreed that the developed multimedia (PPTs & flashcards) has attractive pictures, simple and easy text for the grade- 2 students and give the highest rating of 5, mean 5, mean percentage 100, and standard deviation zero which mean all agreed, for item 2, 3, and 5. They also agreed that I-VDOs or audios have simple instructions, mean 4.67, mean percentage 93.33, and standard deviation 0.58 for item 1, and good quality audios and videos, mean 4.33, mean percentage 86.67, and standard deviation at 0.58 level.

The feedback about the English content achieved high rating of 4.67 as well. They give highest score of 5, item 6, for the English content is academically suitable for the grade-2 students. They all agreed that lesson plans (item 7), worksheets (item 8), and pre-posttest (item10) were highly suitable for the grade-2 students. Their mean percentage was 93.33, each, and standard deviation was 0.58. The instructional language used in preparing various multimedia is simple and clear to understand by the grade-2 students (item 9) achieved the rating of 4.33, 86.67%, standard deviation 0.58.

Experts Evaluation Feedback

Multimedia Content	Expert 1	Expert 2	Expert 3	Mean of 3 Experts	Percentage %	Std. Dev.
1. Do the multimedia- I-VDOs have simple instructions to understand?	5	5	4	4.67	93.33	0.58
2. Do the multimedia- PPTs have attractive pictures and text for the students?	5	5	5	5.00	100.00	0.00
3. Do the multimedia- flashcards have attractive pictures and text for the students?	5	5	5	5.00	100.00	0.00
4. Does the multimedia-have quality audios/videos?	5	4	4	4.33	86.67	0.58
5. Do the above four have simple and easy text for the students?	5	5	5	5.00	100.00	0.00
English Content	Expert 1	Expert 2	Expert 3			
6: Do you agree the English content taught by the researcher is academically suitable for the target audience-Grade-2?	5	5	5	5.00	100.00	0.00
7: Do you agree that the lesson plans prepared by the researcher are suitable for the target audience-Grade-2?	5	5	4	4.67	93.33	0.58
8: Do you agree that the worksheets prepared by the researcher are suitable for the target audience -Grade-2?	5	5	4	4.67	93.33	0.58
9: Do you agree that the instructional language used by the researcher in worksheets, PPTs, I-VDOs, other online apps is simple and clear to understand by the target audience-Grade-2?	5	4	4	4.33	86.67	0.58
10: Do you agree that the Pre-Post Listening Test used by the researcher is academically suitable for the target audience?	5	5	4	4.67	93.33	0.58
Mean Scores of 6 experts				4.73	94.67	0.35

Table 1: Individual Expert rating table showing the mean scores and percentage

2. Dependent Variables: The dependent variables used in this study are Dependent T-Test, Effectiveness Index, and Satisfaction Index.

Dependent T-Test: An achievement score comparison to reflect the improvement has been presented in the figure below.

Paired Samples Test

	Paired Differences						t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference					
				Lower	Upper				
Pair 1 post - pre	1.46667	1.85199	.33813	.77512	2.15821	4.338	29	.000	

*p=.05

Table 2: The comparison table of pre-test - post-test by using multimedia for improving ELC

The table 2 shows the result of the comparison between the pretest and the post-test found that after using multimedia for improving ELC skills for grade 2 students, the post-test achievement score was higher than the pre-test score level at a statistically significant level of .05. Therefore, I would like to say that there was a significant difference between the pre-test and the post-test of the Grade-2 students. The new strategy of using multimedia did significant increase in the post-test scores of the students.

To further support it, a statistical analysis was also done and presented in the form of a bar graph as the following.

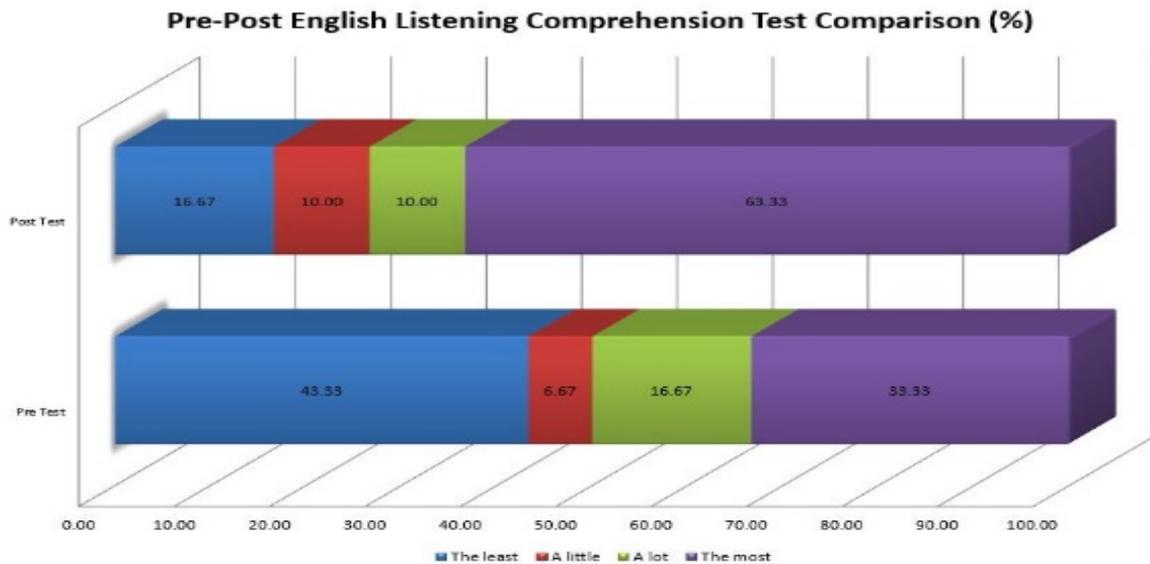


Figure 4 - Bar graph showing comparison of Pre-Post ELC Test (%)

The above graph is of Grade 2 which has 30 students. In the pre-test, the ELC skill of the class was at 50% (16.67+33.33) which shows understanding as good and 50% (43.33+6.67) shows not good. After the implementation of action step by step, the understanding of students' listening comprehension improved to 73.33% (10+63.33) as good and 26.67% (16.67+10) below good. It clearly showed the improvement of 23.33% from 50% to 73.33% in the students' ELC. The mean score of the Post-Test was at 7.6 as compared to the mean score of 6.2 in the pre-Test. It improved by 1.4 points.

Effectiveness Index: An effectiveness of the learning achievement scores using the Effectiveness Index (EI) was at 0.38 which is 38%. The figure-5 below shows the individual scores of 30 students. It reflects the total score of the Post-Test has increased to 229 as compared to 185 in the Pre-Test. The standard deviation of the Post-Test shows that the variation of scores has reduced to 2.41 as compared to 2.60 in the Pre-Test. It shows an improvement.

Pre-Post Test Scores	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	Total	SD
1 Pre Test Scores	8	7	8	9	7	9	10	6	3	4	6	7	8	8	5	4	7	10	10	5	5	2	4	2	4	3	6	1	10	7	185	2.60
2 Post Test Scores	9	9	9	10	7	9	10	8	3	6	9	10	10	9	10	8	10	7	10	6	8	7	3	5	8	2	6	3	10	8	229	2.41

Figure 5- Pre-Post Test Scores

Similarly, when the Pre-Post test scores were compared on the basis of Likert Scale of 1 to 4. The results showed improvement as seen in the figure-6 below. The mean of Post-Test has increased to 3.2 from maximum of 4 as compared to the mean 2.4 in the Pre-Test. The

standard deviation has improved as well as their variation of scores has reduced to 1.2 in the Post-Test than 1.4 in the Pre-Test, in figure 6.

		Type 1, 2, 3 or 4 (4 = Strongly understand 3 = moderately understand 2 = understand a little 1 = understand the least)																														Mean	SD
Grade 2- Pre-Post Listening Result		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		
1 Pre Test		4	3	4	4	3	4	4	1	1	1	2	3	4	4	1	1	3	4	4	1	1	1	1	1	1	1	2	1	4	3	2.4	1.4
2 Post Test		4	4	4	4	3	4	4	4	1	2	4	4	4	4	4	4	4	3	4	2	4	3	1	1	4	1	2	1	4	4	3.2	1.2

Figure 6- Pre-Post Test Scores on Likert scale of 1 to 4

Satisfaction Index: Students' Satisfaction Survey based on Likert Scale about their ELC comprehension skills for each plan is shown in figure-7 below.

		Type 1, 2, 3 or 4 (4 = Strongly understand 3 = moderately understand 2 = understand a little 1 = understand the least)																														Mean	Mean %	SD
Grade 2- Satisfaction Survey	Understand the ESL lesson	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30			
1 Plan 1		3	4	4	4	4	4	4	1	3	4	4	4	4	4	4	3	3	4	1	4	4	3	4	2	3	4	4	4	3	3.50	87.50	0.86	
2 Plan 2		4	4	4	4	4	4	4	2	3	4	4	4	1	4	4	4	3	4	4	4	3	4	3	4	3	3	4	4	4	3.63	90.83	0.72	
3 Plan 3		4	4	4	4	4	4	4	1	3	4	4	4	3	4	4	3	3	3	4	4	4	4	4	4	3	3	3	4	4	3.63	90.83	0.67	
4 Plan 4		4	4	3	4	4	4	4	4	3	4	4	4	4	4	4	4	3	4	4	4	4	4	4	4	3	4	3	4	3	3.80	95.00	0.41	
5 Plan 5		4	4	4	4	4	4	4	3	4	4	4	4	3	4	4	4	3	4	4	4	4	4	4	4	4	3	4	3	4	3.80	95.00	0.41	
6 Plan 6		4	4	4	4	4	4	4	4	4	4	3	4	4	4	4	4	3	3	4	4	4	4	4	4	4	3	4	4	4	3.83	95.83	0.38	
7 Plan 7		4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	3	3	4	4	4	4	4	4	3	4	4	4	3	3.87	96.67	0.35	
8 Plan 8		4	4	4	4	4	4	4	3	4	4	4	4	4	4	4	4	3	3	4	4	4	4	4	3	3	4	4	4	4	3.80	95.00	0.41	
9 Plan 9		4	4	4	4	4	4	4	2	4	4	4	4	4	4	4	4	3	3	4	4	4	4	4	4	3	4	4	4	4	3.83	95.83	0.46	
10 Plan 10		4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	3	3	4	4	4	4	4	3	3	4	4	4	4	3.87	96.67	0.35	
		Average Mean, mean %, SD																														3.76	93.92	0.50

Figure 7- Grade 2 Students' satisfaction scores about their understanding ELC

It shows that the students' understanding in each plan is between moderately understand and strongly understand after using the multimedia. The mean score of students' understanding in plan 1 is 3.50, mean percentage 87.50, and standard deviation is 0.86. The mean score eventually increased in each plan and the variation in the students' feedback about their understanding decreased as well, which means more students understand the lessons and started giving higher ratings and thus less variation in their feedback. The mean score of 10 plans is 3.76, mean percentage 93.92, and standard deviation is 0.50. It represents the developed multimedia has assisted students to understand lessons and improve their ELC.

Furthermore, the bar graph in figure-8 is about the students' understanding of the ESL lessons.

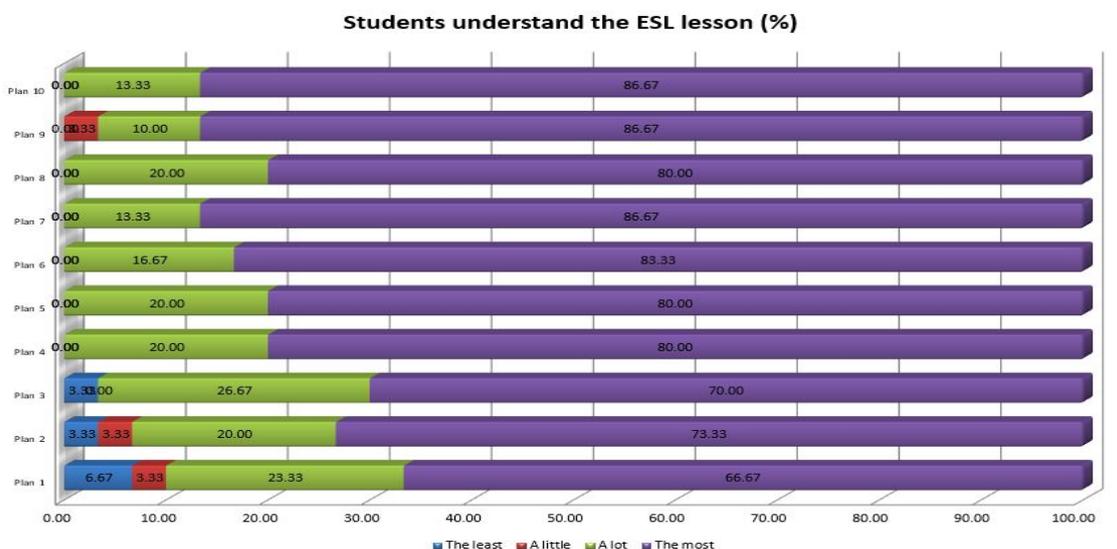


Figure 8- Grade 2 Students' level of understanding ELC Skills

As seen in the figure-8, in Plan-1, there were 66.67% students who could strongly understand English instructions and tasks in class, 23.33% could moderately understand, 3.33% could understand a little, and 6.67% could understand the least. As the action plan continued with the implementation of multimedia in the English class, students understanding of ELC gradually improved along with the passing weeks. The mean percentage score of students' understanding English lessons with the use of multimedia for 10 weeks was at 93.92%, strong understand as compared to 6.08% who understood a little or the least.

Similarly, figure-9 shows that the students' liking in each plan is between moderately like and strongly like after using the multimedia. The mean score of students' liking is 3.55, mean percentage 88.75, and standard deviation is 0.76. The mean score was always higher than 3 in each plan suggesting that students liking was higher than moderately like. It represents the developed multimedia and its use in the classroom has increased students liking.

		Type 1, 2, 3 or 4 (4 = Strongly like 3 = moderately like 2 = moderately dislike 1 = strong dislike)																														Mean	Mean %	SD
Like the ESL Lesson		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30			
1	Plan 1	3	4	4	2	4	4	4	4	1	3	4	4	4	4	4	3	4	3	3	4	4	4	3	2	2	3	4	4	4	4	3.47	86.67	0.82
2	Plan 2	4	3	4	2	4	4	4	4	2	3	4	1	4	4	4	3	4	3	4	4	4	3	4	2	4	3	4	4	4	3.50	87.50	0.82	
3	Plan 3	4	4	4	3	4	4	4	4	2	4	4	1	4	4	4	4	4	3	3	4	3	4	4	4	3	4	3	4	4	3.63	90.83	0.72	
4	Plan 4	3	4	4	2	4	4	4	4	4	3	4	4	4	4	4	4	4	3	3	4	4	4	4	2	4	3	4	4	4	3.67	91.67	0.61	
5	Plan 5	4	4	3	3	4	4	4	4	3	2	4	1	4	4	4	4	3	3	4	4	2	4	4	3	3	3	4	3	4	3.43	85.83	0.77	
6	Plan 6	4	4	4	2	4	4	4	4	4	3	4	4	4	4	4	3	3	3	4	4	4	4	2	4	3	4	4	4	3	3.67	91.67	0.61	
7	Plan 7	4	4	4	3	4	4	4	4	4	3	4	1	4	4	4	4	4	3	3	4	1	3	4	1	3	3	4	4	4	3.43	85.83	0.94	
8	Plan 8	4	4	4	3	4	4	4	4	2	4	4	4	4	4	4	4	4	3	3	4	1	3	4	1	3	4	4	4	3	3.53	88.33	0.86	
9	Plan 9	4	4	4	3	4	4	4	4	2	3	4	4	4	4	4	3	3	3	4	4	3	4	1	4	3	4	4	3	4	3.57	89.17	0.73	
10	Plan 10	4	4	4	2	4	4	4	4	4	4	4	4	4	4	4	4	3	3	4	2	4	4	1	3	3	4	4	4	3	3.60	90.00	0.77	
Average Mean, mean %, SD																	3.55	88.75	0.76															

Figure 9- Grade 2 Students' satisfaction scores about their liking ESL

To explain it furthermore, the bar graph below is about the students' liking of the ESL lessons incorporated with multimedia.

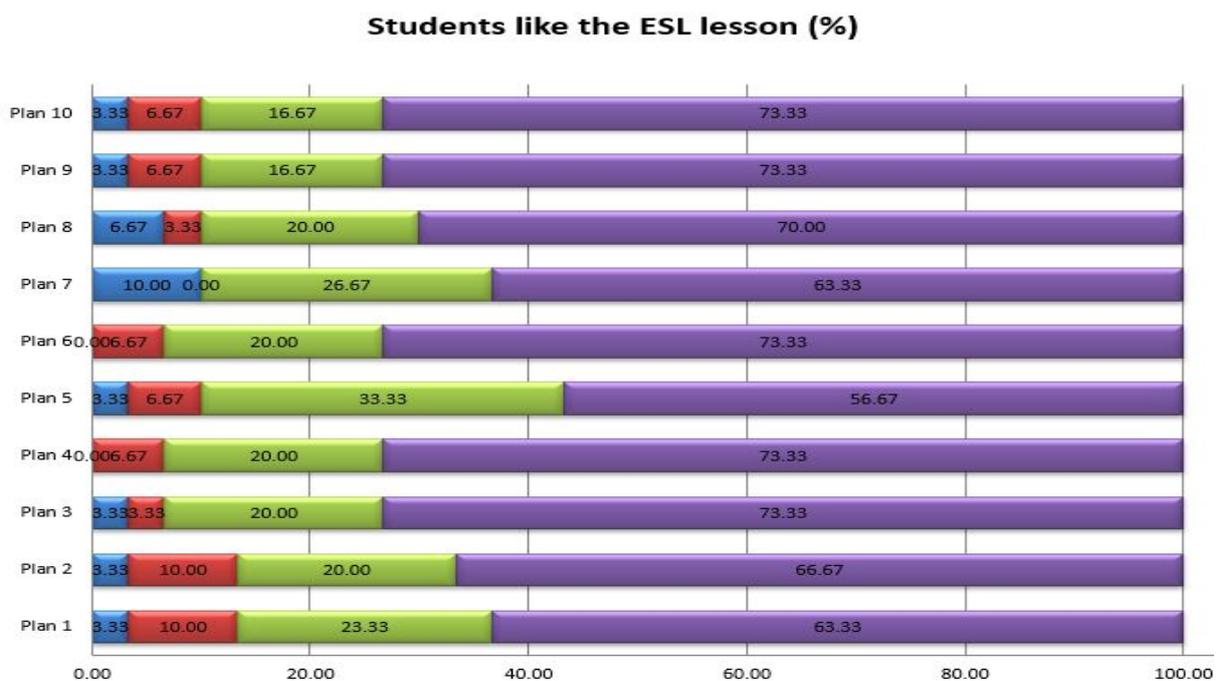


Figure 10- Grade 2 Students' satisfaction level of liking English lessons

The mean proportion of students' satisfaction data obtained who strongly liked English lesson with multimedia was 90% (16.67%+73.33), with 10% (3.33+6.67) liked a little or the least. It indicates a high degree of liking ESL lessons with multimedia. The point to be noted in the above graph is that the students who strongly liked the used of multimedia or the English lessons has increased to 73.33% in the tenth week as compared to 63.33% in the first week. It reflected a high level of liking multimedia in the English lessons.

Discussion and recommendation

In previous studies by Patel, Chirag. (2013), Sejdiu S. (2017), Dwi Heriyanto. (2018), Erizar, Syahputra A., Hidayati T. (2019), Rachman B. (2020), Ogay M. (2020), it has been proven and suggested that the use of multimedia provides greater incentives, inspires students' positive thinking and ELC skills. It also makes the lessons lively, interesting, and assists in better understanding of English lessons. Their studies were conducted with university or high school graduates and recommended to conduct further studies.

This study has highlighted the same and supported the previous studies that the use of multimedia does improve students understanding, and ELC skills. It has a positive impact on the students learning. The researcher would like to mention that the effectiveness of students' learning achievement also depends on the environment they are surrounded, the amount of English that they use in their daily life, the vocabulary that students know at their age level, etc. If these factors can be taken care of, the effectiveness of students' learning would have better results.

The researcher would like to recommend to the teachers that the teacher must be able to choose a suitable teaching technique based on the level of students and use multimedia with simplified instructions, I-VDOs and more listening-based tasks that can help the students in comprehending the text that they listened to. The teachers must try to use listening texts/activities from the textbooks or some other online resources as much as possible according to the needs of the students' improvement. The teachers must clearly understand and make sure that they are not overly dependent on technology. There must be a healthy blend of technology and traditional teaching, online teaching or offline teaching. I would say we must focus on creating a balanced Blended Learning Management System that fits teachers as well as students. The students should also be aware that listening is one of the skills that must be mastered. They must use it in daily life as much as possible to improve their listening skills.

The study can be additional supportive evidence for those who would like to conduct further action research related to the use of multimedia with simple instructions or I-VDOs in the ESL classroom. This study does not end the problem related to listening and comprehending. However, it has been proved that multimedia along with simple instructions or I-VDOs at an early age do help students' understanding and listening comprehension. It has assisted me to improve my students' ELC skills to a great extent. It can be useful for new inexperienced teachers to know which set or simple instructions they can use in the classroom or in the I-VDOs while developing multimedia to make students understand the teacher and how to do the tasks in the class. The researcher has successfully tried and tested this study at primary level. I suggest that ESL teachers conduct further such studies at higher or higher secondary, and university students to support and validate my findings.

Conclusion

I would like to mention that there are several findings that are exposed during this research. When I agreed to continue this research with Grade-2 students, I had a feeling that whether the development and use of multimedia would work well in improving students' ELC skills as other previous researchers or not because the situation was a bit different this year. Students were often ON or OFF this year compared to the previous situation. Many students had a hard time listening to the teacher's instructions or any other text in English given by the teacher, which has resulted in a lack of understanding, confidence, and participation in the class. Online teaching with technical errors has made teaching even harder. After addressing these issues with proper planning and implementation consistently through multimedia, simplified instructions, instructional videos/audios, and listening-based tasks in the classes with an overall of 30 students, I have received immense pleasure and satisfaction from the results of improvement.

The multimedia rating of the six experts was at 94.67% who strongly agreed that the multimedia and English content was suitable for the Grade-2 students. They all agreed and suggested that the quality multimedia would really assist students to learn better and improve their ELC skill. The improvement of the students' ELC skills showed good progress. They were able to listen and understand the English lessons with multimedia, simplified instructions and listening text better each time.

The post-test learning achievement score was higher than the pre-test score level at a statistically significant level of .05. The results of the Pre-Post listening test clearly showed improvement at 73.33% in the post-listening test who could strong understand and improve ELC as compared to 50% in the pre-listening test. The improvement in students' learning achievement scores has thus proved that multimedia somehow grabs students' attention, increases their liking and understanding in English lessons which results in better ELC skills.

The effectiveness of learning achievement scores using the Effectiveness Index (EI) was 38%, meaning the Post Test scores were 38% better than the Pre-Test scores. When considered Covid 19 situation, blended learning environment, students getting sick, and missing classes for their quarantine period, the course of 10 weeks has shown satisfactory results. As represented in the chapter 4, the mean of Post-Test has increased to 3.2 from maximum of 4 as compared to the mean 2.4 in the Pre-Test. The standard deviation has improved and the variation of scores has reduced to 1.2 in the Post-Test and 1.4 in the Pre-Test. Without these conditions, the effective of learning achievement scores would have been much better.

The improvement is also backed by the timely students' satisfaction surveys which were conducted by me, the researcher, for 10 weeks. According to the Students' satisfaction survey, the students' understanding and liking has improved with the use of multimedia in the English lessons. The essential item to note is that the mean proportion of students who can grasp simple English teaching and strongly understand has increased from 66.67% percent in Plan 1, Week 1 to 86.67% in Plan 10, Week 10. The strong or high level of students' liking confirmed my belief that multimedia with straightforward instructions in class or via I-VDOs significantly help students grasp knowledge better, students feel more confident, and participative in the class.

In my study, I was able to achieve all research objectives and satisfied with the results. Based on the results, it has been proved that if multimedia is implemented correctly in a systematic manner with simplified instructions in class or with I-VDOs online and listening-based tasks, re-using them in routine teaching boost up students' understanding and improvement in ELC skills.

Acknowledgement

I am in a state of euphoria and full of appreciation towards the RMUTT E-CUBE-I Scholarship for providing me an opportunity to be a part of a wonderful university and enhance my academic and professional skills in the field of education.

I would also like to express my gratitude from the bottom of my heart to my advisor for his valuable advice, Plearnpattana School for allowing me to conduct my research and the teams of experts for their valuable assistance and advice. I would also like to thank my buddy teachers, who assisted me in developing effective multimedia. Their support is appreciable. Finally, most important, without them, my research would not have any value, my lovely Grade-2 students of the Academic Year 2022 at Plearnpattana School and the researchers whose studies have assisted me in gaining more knowledge and proceeding on with my own research.

References

- Cambridge University Press and Assessment. (2022). *Cambridge English Qualifications-A1 Movers*. <https://www.cambridgeenglish.org/exams-and-tests/movers/>
- Cathy Li and Farah Lalani. (2020). *The Rise of Online Learning in Covid 19 Pandemic*, *World Economic Forum*. <https://www.weforum.org/agenda/2020/04/coronavirus-education-global-covid19-online-digital-learning/>
- Dwi Heriyanto. (2018). *The Effectiveness of Using Youtube for Vocabulary Mastery*. https://www.researchgate.net/publication/324572299_The_Effectiveness_of_Using_Youtube_for_Vocabulary_Mastery
- Erizar, Syahputra A., Hidayati T. (2019), *The effectiveness of Use Multimedia in English Teaching at SMPN 1 Meulaboh*. <https://www.atlantispress.com/proceedings/icssis-18/125906260>
- Khalid I. Al-Nafisah, 2019. *Issues and Strategies in Improving Listening Comprehension in a Classroom*. https://www.researchgate.net/publication/334134857_Issues_and_Strategies_in_Improving_Listening_Comprehension_in_a_Classroom
- Ogay M. (2020). *Use of Multimedia in Teaching English to Young Learners*. <https://www.idpublications.org/wp-content/uploads/2020/04/Full-Paper-USE-OF-MULTIMEDIA-IN-TEACHING-ENGLISH-TO-YOUNG-LEARNERS.pdf>
- Patel, Chirag. (2013). *Use of Multimedia Technology in Teaching and Learning communication skill”: An Analysis*. <http://www.ijoart.org->Use-of-Multimedia-Technology-in-Teaching-and-Learning-communication-skill.pdf>.
- Picard. M and Velautham. L. (2016). *Developing Independent Listening Skills for English as an Additional Language Students*. <https://files.eric.ed.gov/fulltext/EJ1106344.pdf>
- Rost, M. (2005, 2011). *Teaching and Researching Listening*, Longman, London.
- Sejdiu S. (2017). *Are Listening Skills Best Enhanced Through the Use of Multimedia Technology*. <https://files.eric.ed.gov/fulltext/EJ1166469.pdf>
- Tiedemann, K.M. (2020). *The Impact of Blended Learning on Student Motivation and Achievement in Reading and Writing*. <https://scholarcommons.sc.edu/cgi/viewcontent.cgi?article=6950&context=etd>
- UKEssays. (November 2018). *Learning Difficulties Encountered By Efl Students English Language Essay*. <https://www.ukessays.com/essays/english-language/learning-difficulties-encountered-by-efl-students-english-language-essay.php?vref=1>
- Wikipedia. (2022). *21st Century Skills, Likert Scale*. https://en.wikipedia.org/wiki/21st_century_skills, https://en.wikipedia.org/wiki/Likert_scale

Contact email: vipin_sheoran@rmutt.ac.th
vipin_sheoran79@gmail.com