

Exploring the Efficacy of Multimedia Online-based Learning (techno-education) for Intermediate EFL Learners with Difficulties in Listening and Speaking

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Abstract. The development of technology literacy in Indonesia can be seen from the increasingly widespread use of online multi-media which has an impact on many aspects, including education. In terms of practicality of this technological development, this research was conducted to provide English language learning technology for EFL (English as Foreign Language) learners who experience difficulty in speaking and listening with online multi-media based technology in the form of *lingorank.com* media content. This research is a concurrent-mixed method research whose qualitative study with case study approach is more dominant than its quantitative analysis. The research was conducted at STKIP Muhammadiyah Bogor. Data triangulation method is carried out as a data collection technique. The sampling technique used is selective sampling or also called purposive sampling which involve 32 students as the sample. The triangulation including field observations and interviews. Interviews were conducted to determine the obstacles found by respondents in the process of learning to listen and to speak. After analyzing the strengths, weaknesses, and experienced constraints, *lingorank.com* multimedia content education was given to the respondents. At the end of the research, it will be described how this multi-media online based learning technology learning process can function in developing listening skills, and how it can help EFL learners in developing speaking.

1. Introduction

Listening and speaking are part of the English language skills component which is quite complex in EFL (English as Foreign Language) learning practices [1]. Difficulties in both types of skill are experienced by many EFL learners in the Indonesian context consisting of various ethnicities, languages and cultures. Based on the observations and experiences of researchers in teaching EFL, these difficulties arise due to differences in phonological, morphological, and syntactic structures in local languages, Indonesian, and English. This can be seen from the frequent emergence of Indonesian interventions when language users speak English. For example, it is not uncommon for researchers to meet EFL learners who make mistakes in very simple English sentence structures such as "this house beautiful", which should be "this house is beautiful". The verb-‘be’ (is) reduction occurs because the structure of the Indonesian language does not involve verb-‘be’ or to be in the structure of the noun phrase so that this habit is carried away when they speak in English.

Besides, several aspects needed in the process of speaking good EFL such as linguistic knowledge and extra-linguistic knowledge which include knowledge about cultural differences and social context, communication, tradition, etc also become other causes of difficulty in speaking



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English [2]. Related to this, speaking skills are very closely related to listening skills in the language process because they both involve a cognition system and interconnected language organs, namely the mouth and ears [3]. When communicating with the interlocutor, one needs the ability to listen (listening) to the stimulus of the interlocutor which is processed by the brain with the ear organ, then the brain responds by involving existing knowledge, mental-lexicon, and mental-grammar is then produced in the form of speech conducted by the mouth organ.

In terms of application in the context of learning, the authors see the lack of awareness of EFL learners to implement psychological links in the process of speaking and listening [4]. Speaking and listening are still often seen as two separate skills so that the learning techniques are isolated individually by EFL learners [5]. This can be seen from their listening learning techniques that focus on strategies to capture the right words according to the utterances that are heard during the listening process, both in the form of audio media and audio-visual media, not understanding the meaning, situation, and emotions of the speaker so that they can understand what is being played. The minimal amount of vocabulary possessed complicates the process of the listening practice by EFL learners both inside and outside the classroom [6]. In other words, the listening process they do is more focused on "listening" (hearing), not "listening" (hearing with cognitive attention and focus).

As a logical consequence of it, according to the recognition of many EFL learners, many of them encounter difficulties in the process of learning listening and speaking. Therefore, this research is important to do in order to provide solutions and alternatives to problems in EFL learning as above. The researcher examined that the learning process of listening and speaking does not have to be isolated one by one, but can be integrated into one using technology assistance. The importance of integration some language skills using technology, the internet and other online multi-media need to be provided in the form of special training for EFL learners [7] in the form of techno-education. In this case, the research that will be carried out is "Online multi-media based learning (techno-education) for EFL learners with difficulty listening and speaking to EFL learners at STKIP Muhammadiyah located in Bogor regency.

2. Theoretical framework

2.1. *Technoeducation in the language learning model*

The concept of technoeducation or commonly known as *EdTech*, was first introduced by Ely, D.P in 1963 in learning English with audiovisual communication media . According to him, the use of audiovisual communication media in education is part or branch of educational theory and practice that focuses on designing, and using messages that control the learning process [8]. Furthermore according to Ely, the use of these media involves several important activities as follows:

- a. The study of the uniqueness, strengths, and weaknesses of the forms of pictures and messages that are conveyed indirectly that can be used in the learning process.
- b. Structuring and systematizing human messages and various instruments in the educational environment.

After audiovisual communication media was used in educational technology, computer-based learning models began to be used and then developed into a variety of innovations needed by students in his day [9]. It is inevitable that the development of computer technology-based learning models will occupy a major role in the context of teaching and learning foreign languages in formal classrooms [10]. Along with the development of an increasingly rapid era where humans are increasingly dependent on technology, then emerged new breakthroughs that are the result of the creativity of experts, practitioners, and researchers of English education from time to time. Among them, the form of the development of this computer-based learning model is the emergence of internet-based learning technology popularized by Li and Hart [7] which functions features contained in internet media that are considered suitable with the ability of learners of English as a Second Language (ESL). Li and Hart at that time used online magazines as material for ESL learners to discuss with each other, and writing exercises in English using the media in the form of online magazines as reference material.

3. Research Method

This research is a concurrent-mix study whose its qualitative method is more dominant than its quantitative. In its qualitative method, the researcher utilized a case study approach in EFL learning practices at STKIP Muhammadiyah Bogor. Specifically, the most appropriate type of case study the researcher will undertake is the intrinsic case study in accordance with Fraenkel's theory [11] where researchers are interested in understanding certain individuals, or groups with certain situations and examining in depth about how the situation can occur and have implications for related aspects. In this case, the researcher will examine how online multimedia-based learning technology education can be given to EFL learners with listening and speaking difficulties.

This research began with a theoretical framework and observations of empirical situations in predetermined populations and samples. The research instruments that will be used are interviews, and field observations. For more details, the following explains the description of the research methods that will be carried out. The most appropriate sampling technique for this research is selective sampling, also known as purposive sampling. According to Fraenkel [11], selective sampling is commonly done in a qualitative study with a case studies approach by selecting respondents that are tailored to the context of the needs in the research to be or are being conducted. From the selective sampling technique, the samples obtained fall into the category of typical samples where the samples are considered identical, typical, and representative to be examined [12].

3.1. Data collection and Analysis technique

Data collection in research carried out by field observations both inside and outside the classroom. Observations are carried out in the classroom directly to investigate the technological aspects of education that need to be prepared according to the condition of the research participants. Observation outside the classroom is done by means of correspondence via electronic media both email, and chat messages. It needs to be done to find out how the respondent's independent learning process is at home or outside the classroom. In addition, interviews were also conducted to explore detailed information and data relating to the benefits and constraints obtained after the techno-education process lasted to completion. To avoid data gaps to be and are being analyzed, triangulation is carried out [13] with follow-up interviews and participants' performance demonstration to find out to what extent and how the lingorank's online multi-media based learning technology can be utilized in learning EFL listening and speaking.

In this study, the data were obtained from observations and from two main sources that were most relevant to the needs and context of the research objectives, namely students and several lecturers supporting listening and speaking courses. The data analysis process is sometimes carried out simultaneously with data collection because the data will be interrelated and complementary.

Data analysis in this study refers to Strauss & Corbin [14] theory, which is done repeatedly and continuously so that there is no more information that needs to be explored. The technique to be used is the coding/indexing technique [14] which means the process of analyzing data in qualitative studies where data is broken down/ divided, conceptualized, and integrated to form a theory or final conclusion point that is descriptive or interpretative.

4. Research Findings and Discussion

4.1 *What are the intermediate EFL students' difficulties in learning EFL listening and speaking?*

Direct observation was conducted through the learning and teaching process of the researcher in the 5th semester students of English education department STKIP Muhammadiyah Bogor, especially in teaching Academic Speaking subject. Besides, the researcher observed the learning process of the participants in the subjects of Academic Listening and Speaking as well. The observation was carried out for six times meeting in the formal classroom activities in July and August 2018.

Based on the researcher observations, it can be perceived that the listening difficulties of 32 EFL students at STKIP Muhammadiyah Bogor are due to the problem in pronunciation, vocabularies, topics familiarity, and grammatical range and accuracy. Meanwhile the challenges in EFL speaking

they had are related to the vocabulary, pronunciation, grammatical structures, and developing ideas. The number or percentage of the participants' difficulty in each component of listening and speaking encountered are illustrated by the charts below:

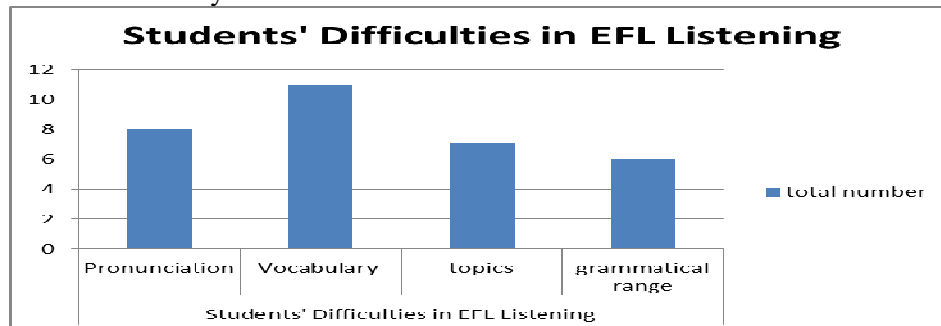


Figure 1. Student's Difficulties in EFL listening

The bar charts above reveals that the most common problem that the students have in learning EFL listening is vocabulary. They cannot understand the content of the listening materials due to their unfamiliarity with the vocabularies being talked in the listening materials. Specifically it shows that from 32 participants, 11 of them have had this problem. In addition to the other problems in learning EFL listening, 8 participants had the problem in pronunciation, 7 participants found difficulties in understanding the topics of the materials, and the remained 6 students thought that their serious problem in EFL listening is in terms of grammatical. Meanwhile the percentage of the participants' difficulties in EFL speaking can be shown by the following figure 2.

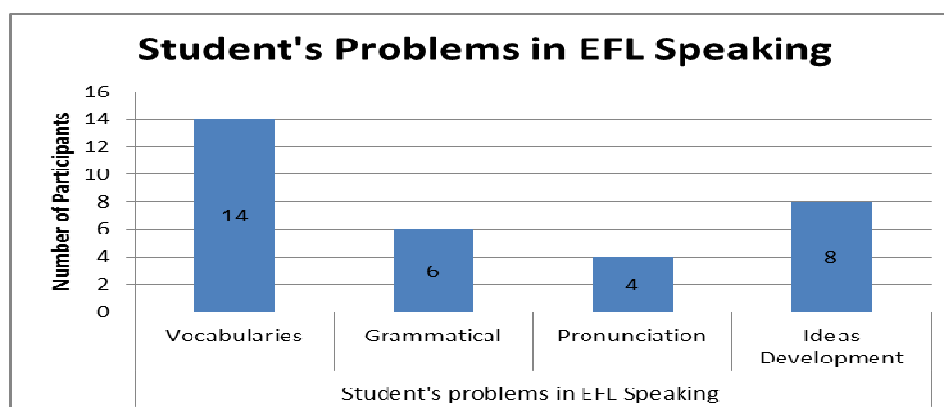


Figure 2. Student's problem in EFL Speaking

It has been clearly seen that most (14) of the participants in this research have a problem related to vocabularies which cause EFL speaking challenging to them. 8 participants had difficulty in developing their ideas in EFL speaking. In addition, 6 and 4 from 32 participants felt uneasy in terms of grammatical and pronunciation.

4.2. How can online multi-media based learning technology of *lingorank.com* be conducted in learning EFL listening and speaking ?

After investigating the students' difficulties in learning EFL listening and speaking, the researcher gave the techno-education explanation and demonstration of the use of *lingorank.com* to the participants of the research. The mentioned techno-education process was conducted with the following steps:

1. Gives description about the media of *lingorank.com* and explaining its functions
2. Introducing the features provided in *Lingorank* media and how it can work

3. Providing the media required in supporting the techno-education process such as the projector, laptop/computer, internet connection, and audio/sounds system equipment.
4. Accessing *lingorank.com*, and demonstrating the use of it
5. Gives example of how to measure self-English levels with *lingorank*.
6. Choosing an example of one video with a certain level from the *lingorank.com*
7. Listen together to the video being played.
8. Guess the vocabularies that were recognized from the listening audio/video using the vocabulary exercise in *lingorank*
9. Self-assessment on vocabulary level
10. Gives information of how to increase level of English vocabulary and listening
11. Combining the listening topics in the video with the speaking practice such as retelling, questions and answer, discussion on the related topics, etc.
12. Let the students practice all the steps that have been taught and demonstrated by the teacher/researcher.

The following figures show the features in *lingorank.com*:



Figure 3. Features in *lingorank.com*

Figure 3 shows any kind of videos that the users can choose to listen to. The EFL learners may select videos that match their levels of English due to the components of speed level of speaking, and difficulty level of vocabulary. The other features in *lingorank* including the exercise of vocabulary mastery, difficulty level that learners can choose, learning progress, etc.

4.3. What are benefits and weaknesses of online multimedia technology *lingorank.com* in the process of learning EFL listening and speaking?

From the treatment in the form of demonstration of using *lingorank.com*, the researcher kept her observation towards the students' learning process in EFL listening and speaking. The researcher also encouraged participants to practice and use this media at home in their independent learning in order to give more objective impressions and experiences regarding the use and practicality of *lingorank.com*. After four weeks of the treatment process, the researcher observed and interviewed the students. To sum up, the following tables shows benefits and weaknesses of *lingorank.com* in the EFL listening and speaking context as the results of the observation, and students' practice of demonstration of using *lingorank.com*:

Table 1. Strength and Weakness of *lingorank.com*

The strength of <i>lingorank.com</i>	The weaknesses of <i>lingorank.com</i>
Fun to learn English listening skill	Cannot be accessed offline
Can increase students vocabularies	Types of questions in listening and vocabularies are limited
Improve student's listening skills in terms of pronunciation	Needs a longer period time of introduction about the features for "beginners"

Improve student's grammatical knowledge in listening
 Measure the level of student's listening skill and vocabularies
 Can be used for speaking with some methods combination from the teachers of learners

No explanation about grammatical structures involved in the listening materials
 Does not have any specific features for speaking practice

In terms of its practicality for intermediate EFL learners in listening and speaking, the researcher sums up the recapitulation of the interview results of students' perceptions on using *lingorank.com* in the charts (figure 4).

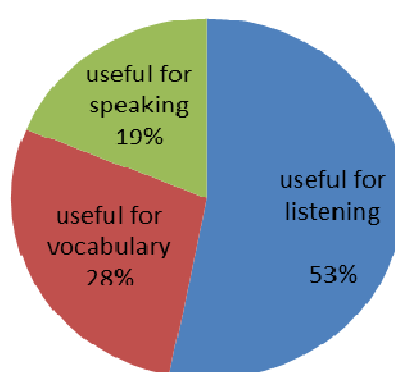


Figure 4. Lingorank Practically

The presented pie charts illustrates that 17 (53%) of 32 students thought that *lingorank* is useful to learn English listening skill, 9 of them (28%) perceived that it is more suitable for English vocabulary learning, but the remaining 6 students (19%) expressed that it is good for learning EFL speaking. In other words, most of the participants stated that the most applicable and appropriate English skill can be trained using *lingorank* is English listening skill. Most of them also do not perceive that *lingorank* is good for learning EFL speaking since only 6 students think that it has usefulness in EFL speaking practice. It may also enrich the students' vocabulary mastery as 9 of them explained that *lingorank* is practical in learning EFL vocabularies.

5. Conclusion

Techno-education means the process of combining theory and practice in learning using audiovisual communication media in order to get more benefits for learners in the education context. *Lingorank.com* is utilized by the researcher as a techno-education process to explore the efficacy in the implementation of it by integrating EFL listening and speaking skills. The results of the interview shows that 17 (53%) of 32 students thought that *lingorank* is useful to learn English listening skill, 9 of them (28%) perceived that it is more suitable for English vocabulary learning, but the remaining 6 students (19%) expressed that it is good for learning EFL speaking.

Furthermore, in its practical context, the results of the observation conveyed that *lingorank.com* can benefit EFL learners in listening and vocabulary mastery and enrichment as what has been stated in details in the research findings. Meanwhile in EFL speaking context, *lingorank.com* can be effective with combination of teacher or learner's creativity since it does not provide any specific features for speaking practices. The examples of instruction that can be given to boost *lingorank* function in EFL speaking skill for students are retelling the topic in the video, giving some oral questions about the topics from the listening materials, discussing the topics in the listening materials with peers of groups and relating it with the other topics of discussion as well.

References

- [1] J. Harmer, "How to Teach English, an Introduction to the Practice of English Language Teaching." Pearson Education Limited, Edinburgh, 2001.
- [2] S. Thornbury, *How to Teach Speaking*. London: Person Education Limited, 2005.
- [3] M. W. Dolan, "Integrating Listening, Speaking, Reading, and Writing in the Classroom," *Lang. Arts J. Michigan*, vol. 1, no. 1, 2005.
- [4] M. Picard and L. Velautham, "Developing Independent Listening Skills for English as an Additional Language Students," *Int. J. Teach. Learn. High. Educ.*, vol. 28, no. 1, pp. 52, 65, 2016.
- [5] I. Wahyuni, "Proceeding Seminar Nasional MANAJEMEN PENDIDIKAN," no. 27 April, 2017.
- [6] I. A. Samad, A. Bustari, and D. Ahmad, "the Use of Podcasts in Improving Students ' Speaking Skill," vol. 3, no. 2, pp. 97–111, 2017.
- [7] R.-C. Li and R. S. Hart, "What can the World Wide Web offer ESL Teachers?," *TESOL J.*, vol. 6, no. 2, pp. 5–10, 1996.
- [8] B. B. Seels and R. C. Richey, "Instructional Technology: the Definition and Domain of the Field," Association for Educational Communication and Technology, Washington D C, 2004.
- [9] Y. C. Hsu, J. L. Hung, and Y. H. Ching, "Trends of Educational Technology Research: more than a Decade of International Research in six-SSCI-indexed refereed Journals," *Educ. Technol. Res. Dev.*, vol. 61, no. 4, p. 685, 2013.
- [10] S. Stempelski, "Video in ELT Classroom: the Role of the Teacher," in *Methodology in Language Teaching: an Antology of Current Practice*, 2002, p. 362.
- [11] H. H. Fraenkel, Jack R. Wallen, Norman E. Hyun, *How to Design and Evaluate Research in Education*, 8th ed. New York: McGraw Hill Companies, 2012.
- [12] J. . Cresswell, *Research Design: Qualitative, Quantitative, and Mix Method Approaches*. California: Sage Publication, 2009.
- [13] Sugianto, *Analisis Statistika Sosial*. Fakultas Pertanian Universitas Brawijaya Malang, 2002.
- [14] Strauss and Corbin, *Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory*, 2nd ed. Thousand Oaks, London, New Delhi: Sage Publication, 2008.