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DIGITAL TOOLS AND STUDENTS' SPEAKING SKILL

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Abstract

Teaching speaking to EFL learners is tremendously challenging. Having learned English for years at school and acquired sufficient vocabulary and grammatical features, students remain struggling to speak English effortlessly. For that matter, employing digital tools in teaching speaking can be regarded as a prospective solution since some of which are particularly designed for English language learning. These tools equip teachers with unlimited and up-to-date resources as well as facilitate students to be a lot more involved in the learning activities and are expected to better perform their speaking ability. Accordingly, researcher utilized some digital tools to teach students speaking skill to figure out the impact on their learning growth. This research employed quantitative approach to portray in detail the statistic descriptive of students' scores which reflects students' speaking proficiency progress and their perspective and attitude regarding the electronic devices use. From this data, further, it could be considered the benefits, disadvantages and follow up steps to escalate the potential application of such tools in teaching speaking.

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INTRODUCTION

Teaching speaking to EFL learners is tremendously challenging. Having learned English for years at school and acquired sufficient vocabulary and grammatical features, students remain struggling to speak English effortlessly. In Indonesia, the tendency for

schools to have more than 30 students in each classroom has resulted both teachers and students constraints to maintain participative learning atmosphere. The large classes caused teacher-students interaction problems, inadequate individual monitoring and improper teacher feedback. Miserably, the sudden outbreak of Covid-19 has forced educational institution closures and a shift from face-to-face to online learning where classroom interaction becomes difficult to maintain (Gilbert, 2015).

As a consequence, teachers are demanded to create such learning which provide students opportunity to practice speaking as much as possible in online learning context. Speaking instruction particularly has to be adjusted to the new situation. For that matter, employing digital tools in teaching speaking can be regarded as a prospective solution since some of which are able to promote autonomous learning. These tools equip teachers with unlimited and up-to-date resources as well as facilitate students to be a lot more involved in the learning activities and are expected to better perform their speaking ability. In this paper, voice recognition and voice recorder are considered to be the most promising tools to achieve the teaching objective.

Voice recognition is a software program or hardware device with the ability to decode the human voice and convert it to text (Zinovjeva, 2005). This software offers the possibility for students to individually practice their speaking by utilizing their mobile devices. Simply, its user can self-check their pronunciation accuracy and at what part need to be corrected. Particular voice recognition systems, moreover, enable its users to interact with technology simply by speaking to it, enabling hands-free requests, reminders and other simple tasks. In other word, voice recognition can be students' learning partner available at anytime and anywhere. More interestingly, there are various voice recognition software available freely on mobile application store that can be best alternatives for speaking practice platform.

However, in either synchoronous or asynchoronous online learning, it is an arduous task to monitor students and ensure that they are actually practicing speaking using voice recognition. Instead of recording their voice, students might be able to write down the phrases or sentences asked by the teacher for drilling activities using regular keyboard. Here, the use of a companion application is crucially indispensable. For this purpose, the Voice recorder is considered very suitable to complement the speaking learning activities carried out with voice recognition.

Voice recorder is an application which functions to record audio signal from microphone and transform it into a certain digital file format. In recent communication trend, this recording tool was frequently used to record notes, lectures, songs and so forth. With this

device, teacher can ask students to record their voice, recognize their speaking and autonomously correct their mistake if necessary. In addition, voice recorder is also capable of recording telephone conversations either regular or internet-based calls. This activity allows students to practice speaking with their learning partners while still being monitored by the teacher. The variety of learning experiences resulted by integrating voice recorder is considered to be able to notably increase students' learning interest as well as engage their active learning participation.

In this paper, the researcher determined to adopt *speechnotes* and *google assistance* for the voice recognition and *audio recorder* and *automatic call recorder* for the voice recorder. Not only are they available and can be downloaded freely, these apps work on low bandwith which limited and unsteady internet connection users can deal with. Accordingly, this paper was conducted to figure out the impact of voice recognition and voice recorder tools towards students speaking progress and yield students' perception and attitude on integrating such digital tools to practice speaking in online learning.

THEORETICAL REVIEW

Digital Tool in Developing Speaking Skill

Most contemporary English teachers now integrate various innovative technological aids to facilitate optimum learning experience. According to Anderson (2004) "technology can stimulate the playfulness of learners and immerse them in a variety of scenarios. It gives learners a chance to engage in self-directed actions, opportunities for self-paced interactions, privacy, and a safe environment in which errors get corrected and specific feedback is given". Studies are emerging that show the importance of qualitative feedback in software. Broadbent, J., & Poon, W (2015) added when links are provided to locate explanations, additional help, and reference, the value of technology is further augmented. The modern technologies relax the mind of the students to get into the subject with full involvement rather than a difficult task to do.

Voice Recognition

Voice recognition is defined as a process by which human sounds, words or phrases are converted into electrical signals which are then transformed into coding patterns to which meaning has been assigned such that spoken word can be used as an input to a computer program (Rabiner & Juang, 1993). It is commonly used to operate a device, perform commands, or write without having to use a keyboard, mouse, or press any buttons (Sangani,

2013). This software provides students broader experience in learning speaking since it can convert spoken words to machine-readable input. The device recognizes the accuracy of what was pronounced and figure out whether he/she is uttering the words properly. Once the word enunciated incorrectly, the machine will transcribe it into the word closely similar to the one mentioned by the user. Here, the utterance or sentences being transcribed will probably have awkward meaning because of the incorrect wording. In this case, the user can rearticulate the utterance until getting the intended word. Therefore, this device can be a very useful device for distance learners because they don't have a teacher who corrects their speech and this device can help improving their speaking skills (Juang & Rabiner, 2005).

Furthermore, acquiring speaking proficiency needs constant practices which later build learner's confidence. In an online speaking class, teacher is the key person who guides students' learning. However, Laroy (1995) notes that monitoring learners' speaking is one of the most distressing aspects when teaching a foreign language, and at the same time it can be counter-productive since continuous correction of learners' mistake may be a major cause of loss of learners' confidence. Therefore, the use of voice recognition software for speaking practice which involves a smartphone is potentially promising. The smartphone in this case substitutes the human listener and it acts as the evaluator of the student's speaking (Rolandi, 2005). The cell phone does not correct the student's pronunciation; rather it transcribes what the student says.

Voice Recorder

Voice recorder tools have been widely integrated into language instruction in an attempt to provide learners with opportunities to produce oral output as they allow them to practice and enhance their speaking skills in remote learning (Pop, Tomuletiu, & David, 2011, p. 1199). This digital technology enables learners to record their voice and transmit it to audio files from which they could listen to, assess, and edit their own recorded material. It allows users to record, save, and play the recorded audio in high-quality formats as well as practically share it through various platforms. Certain types of voice recording app, automatic call recorder, for instance, can be used to record telephone conversations automatically. In an online learning situation, this activity facilitates students to practice speaking with learning partners remotely. This voice recording app, further, runs in a low bandwidth internet connection which not only can work with unsteady internet access but also require less data package.

METHODOLOGY

Research Design

This research paper employed quantitative approach to comprehensively portray how students experience the use of voice recognition and voice recorder tools and the impact on their speaking skill. Creswell (2002) describes quantitative methods as the explaining of an issue or phenomenon through gathering data in numerical form and analyzing with the aid of mathematical methods; in particular statistics.

Participants

This research has been carried out in State College and Islamic Studies Mandailing Natal, Noth Sumatra. The participants were 26 students consisting of 17 female and 9 male aged 18-20 year old who were taking Speaking course conducted through online learning. Despite of coming from various geographical backgrounds, they have already been familiar with smartphone and digital tools in their daily circumstances.

Procedure

Due to the spread of Covid 19, the learning activities were undertaken remotely by utilizing mobile messenger application. Students were required to create and be involved in a WhatsApp Group as the learning platform. To maintain the communication consistency and organize the learning process, teacher informed students the set ground rules to be followed strictly during the online class. Moreover, students were trained to use voice recognition and voice recorder tools; the two digital tools frequently be applied in practicing speaking. The learning process carried out in four meetings which took 100 minutes in each section discussed about utterances in casual conversation.

In four meetings when the research took place, the teacher employed different type of voice recognition and voice recorder application correspond to the learning materials and activities have been prepared beforehand. In each lessons, students were exposed to a short video about certain speaking material which contains utterances native speakers usually used on certain occasions. Then, students were instructed to use *Speechnote* or *Google Assistance* on their smartphone to individually practice pronouncing words, phrases or sentences discussed from the video and were allowed to repeat the same utterances until they were happy with the result. They, further, screen-captured the speaking practice activities and sent

it to the teacher through private chat to get some feedback. Here, the focus was not students' pronunciation mistakes yet on the process of practicing speaking.

To accelerate learning speaking experience, students were afterward required to record their voice when articulating sentences being trained previously using audio recorder. By listening to the recordings, students could individually assess their speaking progress by checking their spelling, pronunciation as well as intonation without feeling nervous like when she/he was talking to friends or teacher directly. For conversation practice, the teacher randomly called certain students to have casual chat and then encouraged them to call their friends to do short dialogues and record it using an *automatic call recorder app*. This activity trains speaking spontaneity which further improve their speaking fluency.

Data Collection and Analysis

The researcher implemented a speaking proficiency test and questionnaire survey to get feedback from the participants. The speaking tests were administered outside of the learning hours before week 1 and after week 4 of the teaching schedule via telephone interview method and were automatically recorded using call recorder application. Afterward, having completed four weeks of learning, students were required to respond to ten questions of a close-ended questionnaire set in Google form. Each item comprises options of 5 Likert scale labeled strongly agree, agree, undecided, disagree, and strongly disagree. Likert (1932) developed the principle of measuring attitudes by asking people to respond to a series of statements about a topic, in terms of the extent to which they agree with them, and so tapping into the cognitive and affective components of attitudes. The data derived from the students' scores and their responses toward the questionnaire were then analyzed by using descriptive statistics and presented in percentages to be discussed in the next section.

FINDINGS AND DISCUSSION

The finding comprises three issues regarding the impacts, the usefulness and the challenges of integrating voice recognition and voice recording in practicing speaking in online learning context. Each section are presented as follows:

Students Speaking Skill Progress

Referring to the analysis results of two tests administered before and after the four lessons, the progress of students' speaking learning outcomes can be identified in the following table and

charts. They were prepared based on both the descriptive statistic calculation of the students' scores and the differences of students' average value per indicator of five speaking skills assessment criteria; namely fluency, pronunciation, intonation, grammar and vocabulary.

Table 1. Descriptive Statistical Analysis of Students' Score on Test 1 and Test 2

	Descriptive Statistic				
	Count	Mode	Minimum	Maximum	Mean
Test 1	26	65	44	92	69
Test 2	26	69	53	94	76

In general, students' average score of test 2 is 76 or differ 7 points from test 1 at 69. Out of 26 students, the highest score of test 2 is 94 or just higher 2 points than test 1 at 92. In addition, the most frequently emerges score of test 2 is 69 or 3 points higher than of test 1 at 65. In other words, students performed better at the second speaking test or after practicing Voice recognition and voice recorder in their online learning.

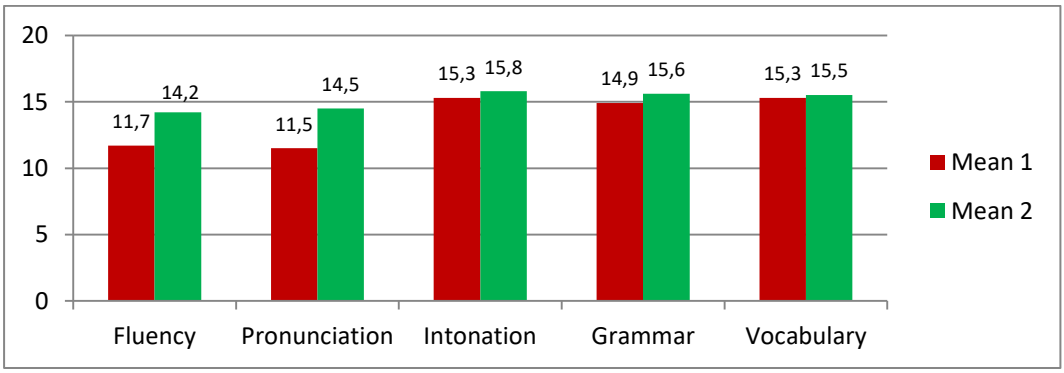

Chart 1. Mean scores of Test 1 and Test 2

Chart 1. Comparison of Mean on Test 1 and Test 2 Per Indicator of Speaking Assessment

Further, by inspecting at the five indicators of speaking skill assessment, it appeared that there was an increase in the students' average score before and after practicing speaking using Voice recognition and voice recorder tools. The pronunciation value, in particular, experienced the highest increase of 3 points, followed by the fluency value at 2.5 point, the grammar value at 0.7 point, the intonation value at 0.5 point and the vocabulary value at 0.2 point.

Students' Perceptions toward Voice recognition and Voice recorder Tools

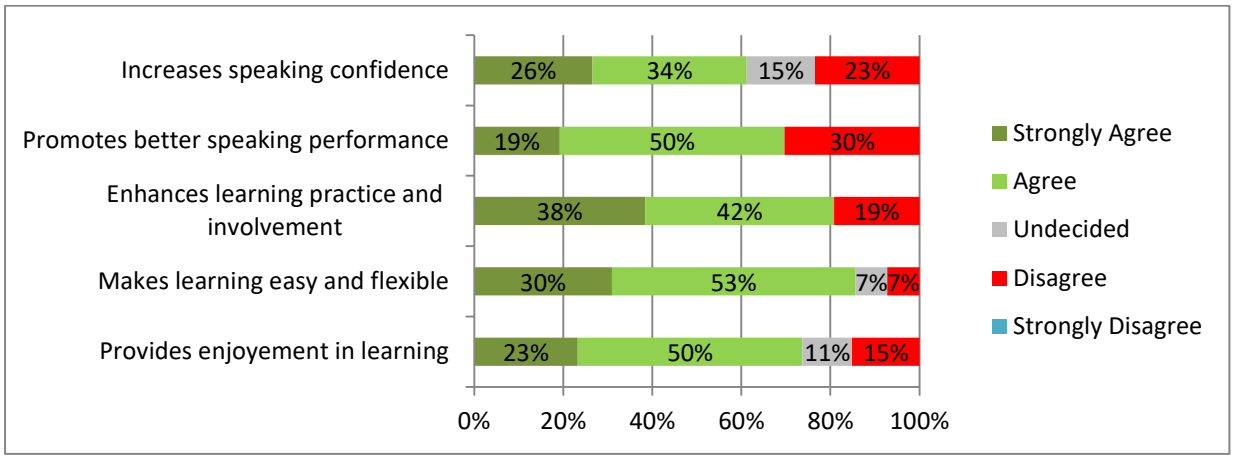

Chart 2. The usefulness of Voice Recognition and Voice Recorder

Based on the data exposure in chart 2, the majority of 26 students responded positively on the use of Voice recognition and voice recorder to practice speaking in online learning. 53% students agreed and 30% students strongly agreed that not only was more flexible, employing such devices has enabled them to learn speaking easier. Moreover, 42% agreed and 38% students strongly agreed that they practiced and actively involved more in the learning process. Similarly, 73% students, 69% students and 60% students respectively had agreed that they enjoyed utilizing the digital tools which then promoted their speaking performance as well as escalated speaking confidence.

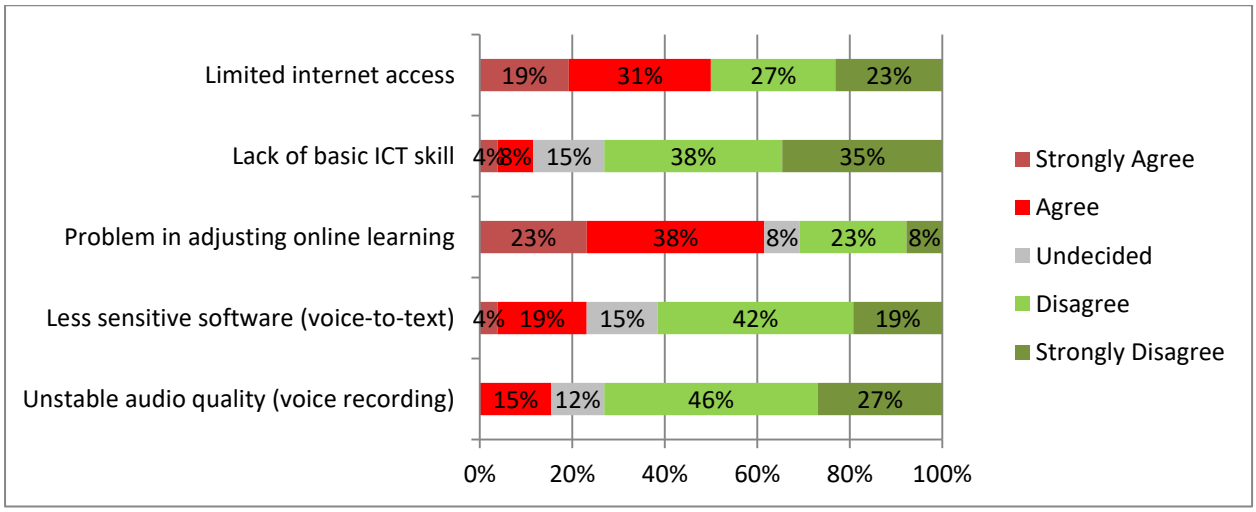

Table 3: The Challenges of Using Voice recognition and Voice Recorder

Chart 3 portrays the challenges students experienced in utilizing Voice recognition and voice recorder as medium to practice speaking in online learning context. The red bar indicates that few number of students were overwhelmed by some obstacles during the learning process. Despite their adequate ICT skill where 73% or 19 students claimed had no

drawback on digital tools usage, 61% or 16 students were excessively struggling to adapt new learning circumstances. *Contrariwise*, only 23% or 6 students stated that they had been cautious about using Voice recognition due to its less sensitive voice detection while only 15% or 4 students otherwise perceived audio quality in voice recorder was difficult to cope with.

In accordance, it can be concluded that learning speaking using digital tools positively affected students' speaking skills, specifically in pronunciation and fluency however students' intonation, grammar and vocabulary have also improved yet not remarkable. Further, out of 26 students, greater number of them claimed to benefit more learning is easier and more flexible even though it is difficult to adapt to the online learning system.

Referring to the grading system at STAIN Mandailing Natal, students' speaking skill scores raised significantly from C+ (fair) to B (good) category. This confirmed that Voice recognition and voice recorder tools have helped them practice speaking more intensively in online classes either synchronously or asynchronously. On the other hand, the most interesting point to highlight is the comparison among the mean scores of the five speaking assessment indicators. Pronunciation and fluency experienced the most significant growth from the other indicator values. Unpredictably, grammar scores also increased higher than intonation and vocabulary. In other words, integrating Voice recognition and voice recorder has obviously proven notable progress in training students not only to pronounce English words properly but also to develop their lexical and syntactical speaking skill.

Despite the positive perception and attitude toward the use of Voice recognition and voice recorder tools, there were still several students admitted to having problems in some ways. Integrating such devices in speaking class was indeed considered not only easy to use and flexible but also enhances learning engagement, however in the context of online learning, students are demanded to have internet access which was often neither unstable nor unaffordable. Further, adjusting online class has become the second biggest challenge. Voice recognition was somewhat less sensitive than it could not precisely detect student's voice it received which then required them to pronounce the words repetitively. In addition, it is also hard to maintain the audio for the voice recorder product which might lead to unclear meaning. Some of these problems are allegedly due to the dramatic change from face to face learning to online learning. Therefore, English teacher are demanded to design online learning instruction effectively.

CONCLUSION

Integrating digital technology in online learning instruction is among the equitable effort which promotes more engaging and student-directed learning experience. The empirical data indicates that adopting voice recognition and voice recorder could remarkably improve students' speaking skills, specifically pronunciation and fluency. Most students also have positive perceptions and attitudes toward the use of the digital tools since they found it enjoyable, flexible and appealing to practice speaking with. Nevertheless, adapting to online learning and limited internet access are two main obstacles students experienced during the learning process.

However, this research still needs improvement since the speaking test was not designed to assess a particular speaking skill. Students' speaking competence which comprises fluency, pronunciation, intonation, grammar and vocabulary were not yet elaborated comprehensively. Therefore, further researchers are recommended to conduct typical research in deeper and broader analysis by focusing the analysis on a certain speaking skill. Thorough data exploration will provide crucial feedback for teachers in developing more effective and applicable online learning instruction.

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