



## Articles

# A Need Analysis for English Speaking and Listening Assessment Media with Web Responsive in Computer

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## A B S T R A C T

This study aimed at finding and analyzing the information of the ideal speaking and listening online assessment media needed in Computer Science Faculty, University of Putra Indonesia YPTK. The study used descriptive and qualitative approaches. The data instrument was a questionnaire using Likert-scale and open-questions responded by 431 students and 17 English lecturers. The result of the study showed that the students need interactive and interesting assessment web responsive while the lecturers need web responsive media which enable them to assess speaking and listening online including scoring and sending feedback. The result of the study will also be used as a matrix for developing online assessment media.

## I. INTRODUCTION

The English language is one of the compulsory subjects taught at any level of Indonesian education institutions. In university, the English language is delivered in two periods. General English (GE) is given as the primary course and English for a specific purpose (ESP) is given afterward. When GE is used to give basic English language skills to the students, ESP serves the students' need for the language in their professional careers. Therefore, teaching ESP requires a closer analysis of the related major.

Computer Science Faculty in University of Putra Indonesia YPTK Padang also recommend ESP as English for computer science studies in the second semester. This subject should meet the students' needs of using English in IT industries. It provides competencies especially in speaking and listening skills related to topics and job implementations. Speaking and Listening skills for computer science students is crucial. These skills are applicable in computer science jobs since it is more often for the workers to communicate with their colleges than to pay attention to grammar. Fahmi, Pratolo, and Zahrani (2020) found that many English learners still cannot speak English fluently even though they

have spent more than a decade learning English. Therefore, students need to practice speaking and listening to English following their field of study, so that they can benefit from the skill in their careers.

The pandemic of Covid-19 causes changes in all aspects of teaching and learning activity. Teaching and assessing speaking and listening cannot be done in class anymore. Lecturers must figure out ways to teach and assess these skills online. This way has to be able to reach the same outcomes as they used to get it offline. To reach the outcomes, the lecturers must set the same standard for speaking and listening assessment. The assessment of language proficiency means the capability of the students to perform communicative and effective language by using basic skills, like speaking and listening (Lorena and Sadiku, 2015) what it teaches, and what it takes, the teacher and the student. Today takes great importance to the training of students to teach themselves, their education, equipping them with the skills of independent work with the most advanced methods of learning conscious, sustainable, active and creative. The purpose of this topic is to know the importance of usage of all skills during a lesson hour. The teacher is free to use a variety of methods and strategies of teaching

/ learning to suit the needs of students in different classes. He combines these methods during the learning process and adapts according to the increasing development of linguistic competence and independence of student development, the consistency of this process. Teaching has at its center the method of communication, task-based methods, functional methods and situations as real life etc. These methods are realized through various strategies and techniques, according to language skills (listening, speaking, reading, writing). Hidayah (2017) stated that the students are motivated to reach their learning goal when they can see their progress and failure based on the review given by the lecturers. Moreover, Assessing language proficiency is beneficial since it can help both lecturers and students see the students' progress in language learning and evaluate the curriculum of teaching (Idayani and Rugaiyah, 2017).

Speaking and listening assessment requires a set of requisites that can be very complicated for online or even offline teachers. The use of certain media has been proposed to facilitate assessment activities. Jing (2006) stated that English lecturers have been looking for media for the students to practice English independently as accurately as possible, like in real communication. The search for a proper assessment media in ESP must be done through the Need Analysis process. Need analysis in developing ESP material has been discussed for ages by scholars especially in ESP. (Hammer, 1983; Hutchinson and Waters A., 1987; Brown, 1995; Duddley-Evans and M.J.St. John, 2009; Richards, 2001). They agreed that Need Analysis must proceed with developing ESP courses, including syllabus design, materials selection, and assessment.

Need analysis is the first basic step initiating the development of ESP materials and courses. Since the pandemic of covid-19 caused immense changes in ELT, analyzing the needs for a proper speaking and listening assessment has become more crucial for both teachers and students. Many scholars have conducted the need analysis research for having basic information about teaching ESP. It is because different majors of students may require different language needs. Ulum (2015) has done need analysis in developing listening skills in university. The analysis found that there should

be more attractive and relevant speaking materials in students' exercises. Menggo et al. (2019) found that the students from six universities wanted to have more speaking materials that can promote 21<sup>st</sup>-century skills.

For all this long, teaching ESP in Computer Science Faculty in UPI YPTK requires more practice than theory, especially speaking and listening skills.

Amna, and Rasmita (2019) have done need analysis research in the computer science department before developing the ESP module. The results showed that most students wanted to have more interactive and speaking activities in their ESP module. However, during the online learning studies, all English lecturers, especially in Computer Science UPI YPTK, struggle to find suitable methods and media to assess the student's speaking and listening skills. To find suitable assessment media and to understand the difficulties in speaking and listening assessment, the need analysis process should be done immediately.

Since there are no studies in literature reviews explore the use of the responsive web for speaking and listening assessment in the Computer Science Faculty, this research is done to fill the gap and find out what speaking and listening assessment media is needed for both lecturers and students during the online teaching and learning activities.

## II. METHODS

Need analysis is the first step in Research and Development procedure (W. R. Borg and M. D. Gall, 1989). It is the first significant procedure in creating ESP teaching strategy (Amna and Idriani 2019). This research used the concept of need analysis proposed by Duddley-Evans and M.J.St. John (2009) as the instrument of the research questionnaire. The questions were given in Likert-scale questions (1 to 4 scale) and open-questions.

The research data were collected using the questionnaire given to the students' classes in Computer Science Faculty in UPI YPTK Padang in the academic year of 2020/2021 and ESP lecturers from some universities in Padang, West Sumatera. There are 431 students and 17 lecturers had been participated and responded to the questionnaire.

The data were analyzed descriptively and

qualitatively. Firstly, data were recorded in the google form and then analyzed by using the excel chart data software. Finally, data were presented in bar charts for numerical calculation of the percentage and continued by qualitative interpretation.

Overall, this research used a descriptive quantitative study. The descriptive qualitative method is used to explore and analyze the data based on the phenomena that existed (Gay, Mills, and Airasian 2012). Moreover, Cohen, Manion, and Morrison (2011) stated that qualitative data analysis involves organizing, accounting, and exploring data, in short, understanding data in terms of participants' definition of situations, recording patterns, themes, categories, and regularities. Hence, the researchers can obtain deep and detailed information based on the circumstances that occur with the students.

### III. RESULTS

#### 3.1 Need Analysis Based on the students' questioners

##### a. Subjective Analysis

As proposed by Duddley-Evans and M.J.St. John (2009), it is necessary to find out personal information about the students that might affect creating an appropriate speaking and listening assessment. Therefore, the first question queries about the students' perception of the importance of speaking and listening skills.

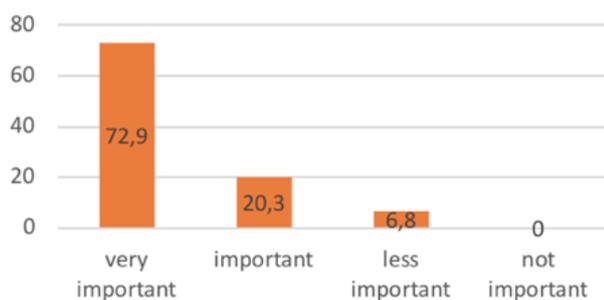


Fig. 1 Students' perception of the importance of speaking and listening skills

Figure 1 shows that most students realize how important the skills are when asked about students' perceptions. There were about 314 students, or 72,9% stated that they think speaking and listening are very important, and the next 90 students, or 20,3% of students said that those are important. Only the rest were not sure about the benefit of

mastering speaking and listening in language learning. This percentage coerces the lecturers to make their students see that they need to gain a high level of speaking and listening English to succeed in being a part of the international world and working in IT industries.

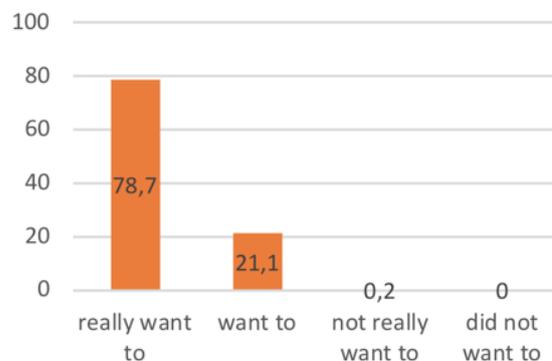


Fig. 2 Students' intention in mastering speaking and listening

In question 2, students were asked about their intention in mastering speaking and listening for their future when working in IT industries. Figure 2 shows that there is 78% (339 students) stated that they wanted to master speaking and listening skills, especially in IT. In this question, none of the students did not want to master the skills. The chart shows that the students' intention to master speaking and listening skills is high. Therefore, the lecturers need to act out the fact by facilitating the students with proper speaking and listening assessment to monitor the students' skill progress.

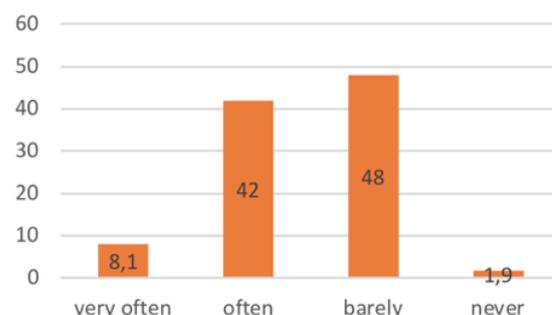
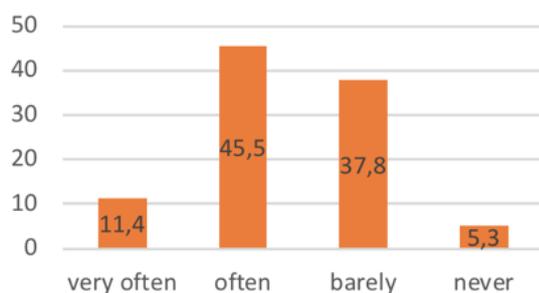


Fig. 3 Students practice speaking and listening skills

Question 3 asked how often the students practice their speaking and listening skills. Based on figure 3, we can see 48% (207 students) said they barely practice speaking and listening. 1,9% of students do not do anything to improve their English speaking and listening. This percentage shows how much they need more speaking and listening assessment to check their improvement in learning English.

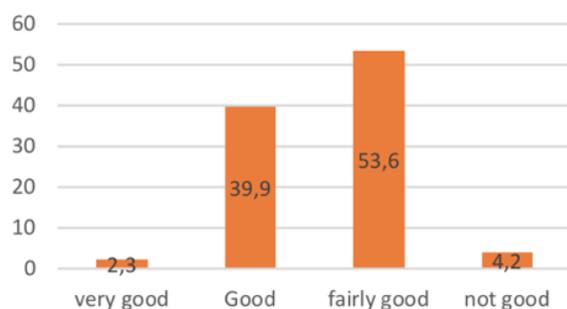


**Fig. 4 The use online media or application in learning English**

Question 4 was asked whether the students use any online media or application using English. Figure 4 shows that more than half of students tend to use online media with English. It is obvious because there are many foreign webs, applications, and media which are interesting and fun. This fact proves how important to build an online assessment so that teachers can also record and assess the students' online activities.

#### *b. Present Situation Analysis*

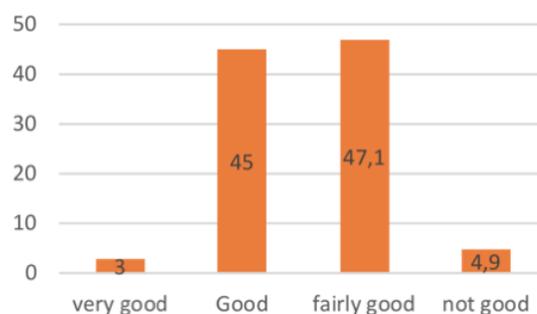
The second aspect in Need Analysis is Present Situation Analysis. This aspect is aimed to find out the students' current language skills so that the researchers know the students' English capability, especially in speaking and listening.



**Fig. 5 Students' insistence toward to their speaking**

Figure 5 shows the students' insistence toward to their speaking skills. Most of the students stated that their speaking skills are still fairly good. There are also 4,2% of students who said that their speaking skills are not good at all. Only 2,3 % of students are confident enough to say that they are very good at speaking.

Figure 6 shows the students' answers related to their listening skills. There are 47,1 % (203 students) admitted that their listening is still fairly good and 4,9% said that their listening is not good. However, there is for about 45% (194 students) stated that

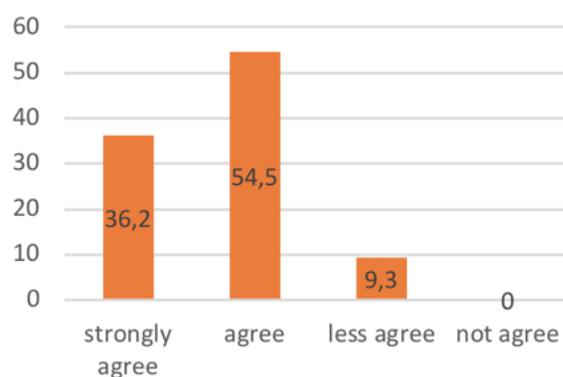


**Fig. 6 Students' skills in listening**

their listening is good. This number is higher in comparison to the students' response for speaking skills.

#### *c. Learning Needs*

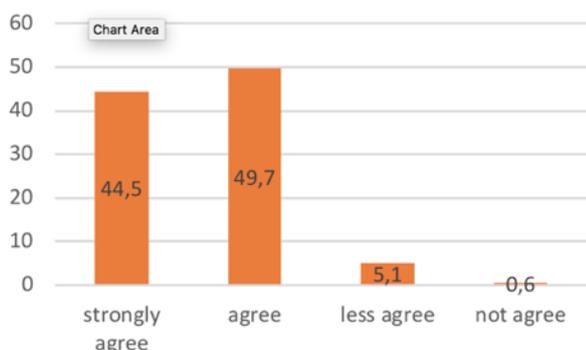
The learning Needs aspect defines the needs of the students to improve their learning capability. By studying the learning needs, the researchers can find an effective way to fulfill the need.



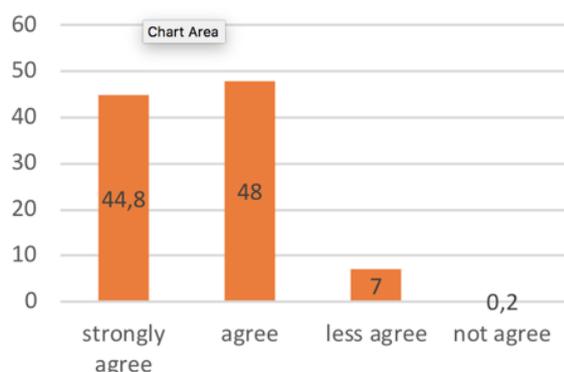
**Fig. 7 Students' need for speaking and listening assessment**

In question 7 of the questionnaire, students are asked whether they need their speaking and listening to be assessed in every meeting. Figure 7 shows that while studying English for computer science, most students wanted their speaking and listening skills to be evaluated every meeting. It is shown by the percentage of strongly agree and agree on the category, which reached 36,2% and 54,5% consecutively.

The next question was whether the students wanted their speaking and listening skills to be tested and assessed with online media. Based on figure 8, we can see that there is 44,5% (or 192 students) answered strongly agree, and 49,7% (or 214 students) agreed that they want online media to test and assess their speaking and listening skills more effectively.



**Fig. 8 Students' need for speaking and listening assessment**

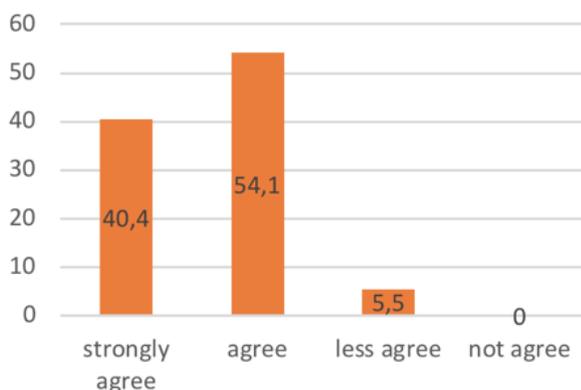


**Fig. 9 Students' need for media or applications to test speaking and listening**

In question 9, the students were asked whether they needed media or applications to test their speaking and listening beyond class hours. Figure 9 shows that 44,8% (207 students) strongly agree, and 48% (193 students) said that they need to have media or applications beyond their class hours so that they can do their activity or homework anytime and anywhere with better readiness.

*d. Linguistics Analysis*

The last question is whether the students agree that interactive online assessment will encourage students to improve speaking and listening skills.



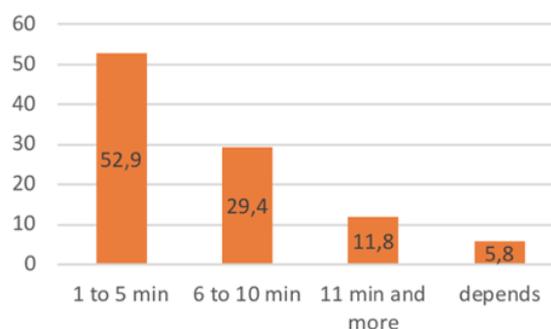
**Fig. 10 Interactive online assessment for speaking and listening**

In figure 10, most students agree that interactive online assessment might encourage their motivation to improve speaking and listening skills. There are 54% (233 students) and 40,4% (174 students) show that teachers need to think of a more challenging evaluating system.

**3.2 Need Analysis Based on the Lecturers' questioners**

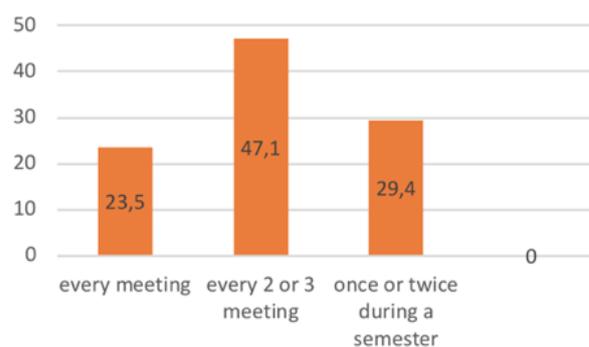
In developing a needed media for speaking and listening assessment, the researchers gave questioners to English lecturers who teach English for specific purposes. The questions are generally asked in open-question using a google form to get information on how the teachers use media assessment, especially during online learning.

The first question asked how long they usually take time to assess the students speaking and listening. The answer is shown in figure 11.



**Fig. 11 Time spent for assessing speaking and listening**

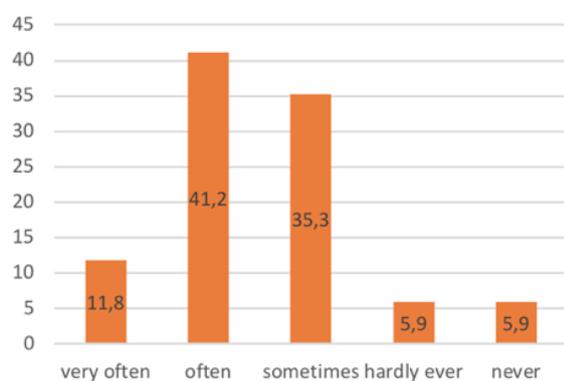
Figure 11 shows 52,9% of lecturers or most lecturers are used to spend 1 to 5 minutes assessing each student's speaking and listening skills when they were in the classroom. Some others spent more than five or ten minutes, depending on the assessment activity. While doing the assessment online, most lecturers only spend not longer than 5 minutes for each student.



**Fig. 12 How often the teachers assess the student's speaking and listening**

The second question for the lecturers asked how often they usually assess the student's speaking and listening skills in one semester.

In responding to the questions, lecturers' answers are varied, as seen on chart 12. 47% of lecturers said that they do the assessment every 2 or 3 meetings. Some lecturers even honestly answered that they only do the evaluation once or twice during the semester. Since evaluating speaking and listening skills were used to be carried in class, doing an online assessment with limited media provided caused many difficulties to the lecturers like the amount of internet data used and time-wasted in checking individual assignments sent by the students.



**Fig. 13 Teachers use online media or application for assesing speaking and listening**

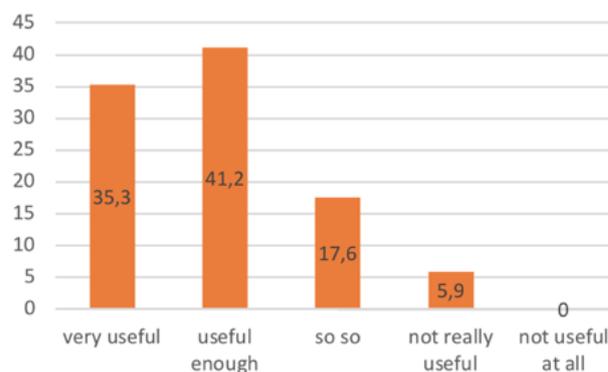
Question 3 asked whether the lecturers use any online media or application to assess students' speaking and listening skill.

In figure 13, it is found that 41,2 % of lecturers sometimes use online media or applications to assess speaking and listening. Moreover, some lecturers never use any online media or application to assess speaking and listening. They just choose to assess directly during the online classes running with zoom or google meet.

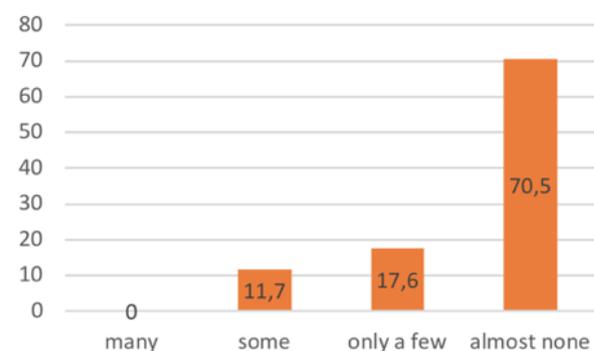
Question 4 asked whether the lecturers get advantages by using online media or applications to assess speaking and listening.

The answers in figure 14 show that almost all lecturers agree that they found the online media and applications very useful.

The fifth question asked whether the lectures have found any ideal media to assess speaking and listening.



**Fig. 14 Teachers use online media or application for assesing speaking and listening**



**Fig. 15 Teachers use online media or application for assesing speaking and listening**

Figure 15 shows that 70,5% of lecturers stated that they had not found a certain media that they need to assess students' speaking and listening skills accurately and effectively. Moreover, the lecturers suggested that the research may help to design a media to help lecturers in assessment activity and can be run on any device.

#### IV. DISCUSSION

To get the full picture of Need Analysis for speaking and listening assessment media in Computer Science Faculty in the pandemic era, the questionnaires are given for both lecturers and students. In the questionnaire, eight aspects of Duddley-Evans and M.J.St. John (2009) concept of Need Analysis is used. The questionnaire is divided into Likert Scale questions and Open-question to get the information about the aspects. The Liker Scales' questions for students' questionnaire are presented in figure 1 until 10.

Firstly, Subjective need analysis. It talks about students' opinions and perceptions about the subject they study. In this research, chart 1 until 4 have represented the students' perception of how

important it is to master speaking and listening skills. The charts' percentage also suggests that teachers should provide proper assessment media that the students can use to track their improvement in speaking and listening skills.

The second aspect is Present Situation Analysis. This aspect was discussed in questions 5 and 6, asking about the students' speaking and listening skills. Both charts emphasize the lack of speaking and listening skills for most students based on their assessment. This fact can be used to build a better assessment media to show students' speaking and listening skills. The absence of assessment will mitigate the students' motivation for self-improvement. Conversely, when the students can access the assessment for their skills, they can help themselves to get improve independently.

The third and fourth aspects are Objective and Lack Analysis. These aspects are meant to find out the students' lack in their competency and the students' pretension of certain topics that they think they might need to learn for their career in IT. According to Duddley-Evans and M.J.St. John (2009), the lecturers should adhere to the student's desires so that they can achieve their attention and motivation. These two aspects are questioned in open-question questionnaires. After gathering all information, some main topics come out the most important topic to be assessed in speaking and listening. Those are: (1) the interview in English for IT career, (2) terms, number, and computer specifications, (3) features, function (4) rules in IT, (5) Giving and following instruction, (6) explaining problems and (7) giving solution.

The fifth aspect is learning needs. This aspect is discussed in questions 7, 8, and 9. Based on the students' answers, it can be concluded that the students wanted media that can be used to assess their speaking and listening skills and can be accessed by both lecturers and students. The students also suggested using online media which is easier to use anywhere and anytime. The students require a different length of time to practice and learn among each of them before they are ready for the test. Some students may need a longer time to understand the structure, the pronunciation, and the concept in the materials, or even the concentration and confidence than their other friends. This fact may cause the conventional testing and assessing

speaking and listening in class to decrease the students' chance to maximize their scores. By giving them media or applications, which can be used outside class should give them better opportunities to learn and practice before they do the test.

The sixth aspect is linguistics analysis. It is used to find out the knowledge of how language, or in this case, speaking and listening skills, are used in the learning target. In responding to the questions, most students agree that interactive and interesting online assessment media will improve their motivation in learning. Inevitably, online media nowadays is much better for expressing many ideas. Media has everything to improve the students' communication in the target language. (Tomlinson, 2007).

The seventh and eighth aspects are what is wanted from the course and Means analysis. Means analysis shows the environment where the students choose to learn or in this case, want to be assessed. In the questionnaire given the students are asked to write any media or applications, they tend to use when they want to practice and test their speaking and learning English. The media or applications that emerged are YouTube, duo lingo, games, and social media. Those online media have inspired students and encouraged their learning motivation (Omidvar and Bahadorfar, 2014).

The next open-questions questionnaire is given to the lecturers. Since the pandemic of covid-19 happens, almost all teaching and learning activities are carried out online. For speaking and listening assessment in the ESP course, lecturers need to figure out ways to conduct the assessment. Based on the open question given, teachers said that they found some ways to assess, namely, having discussion followed by q and a, asking the students to record their voice to tell their opinion on a topic, asking to give a summary on audio, YouTube video, and describing pictures. Almost all of the activities are done by using WhatsApp and zoom. The use of online media helps the students to build their skills and connect them to the world (Muslem, 2017).

Using online media or application are admitted to bringing some advantages for both teachers and students. They are recordable and more attractive. Khotimah (2016) said that the lecturers can see

that using online media can improve the students' vocabulary, self-confidence, and creativity. However, the teachers still face some difficulties when using these media for speaking and listening assessments. The lecturers often complain about the internet connection, too many ads and pop-ups while listening to audio or video online, and other technical errors. Besides, teachers also spend too much time assessing the assignment by manually checking each sending recording, evaluating, and giving feedback. Therefore, the lecturers suggest building a certain media using web responsive to enable lecturers to do the assessment. Harahap and Putri (2017) have designed an android application for English learning, however, this application cannot be run on all devices. They suggested that the English learning application would be better to run in multiplatform or using responsive web-based. Web responsive is a kind of website which is designed to adapt itself to devices with a suitable screen resolution (Bader, 2016). Aminudin, Sari, and Basuki (2019) stated that web responsive could give optimal look even the user uses different devices. Finally, the research found that most lecturers agreed that web responsive media could be the solution for effective and efficient media since both lecturers and students can access the media anytime and anywhere by using any gadget or computer device.

## V. CONCLUSION

The pandemic of covid-19 induces changes in teaching and learning systems. Since all the learning and assessment are carried out online,

lecturers must design a new method to adapt to the situation but still get the best outcomes from the students. Speaking and listening are skills that used to be assessed in class directly by lecturers. However, assessing online brings some difficulties. Based on the questionnaire given, it can be seen that there is an urgency for special speaking and listening assessment media that can be accessed effectively and efficiently. The students proposed interactive and interesting media so that they could do the assessment vigorously. Moreover, lecturers hope that by conducting the research, a media for speaking and listening assessment can be provided by the university, especially in Computer Science Faculty, to tackle the problems and be used effectively by both lecturers and students. Some other suggestions from lecturers include the efficiency in recording the students' work and scoring system and the use of responsive web media. After all, the result of the research will be used as a matrix to design and develop a responsive web for English-speaking and listening assessment in future research.

## ACKNOWLEDGEMENT

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