

A Need Analysis MOOC for Based Instructional Material in Flipped English Speaking Class at Indonesian Higher Education

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ARTICLE INFO	ABSTRACT
<p>Keywords: Needs Analysis, Instuctional Materials, MOOC Model, Speaking Skill</p> <p>DOI: http://dx.doi.org/10.21093/ijeltal.v10i1.1968</p> <p>How to cite: Agusniati, A., Wahid, A., Nur, R. & Asdar, A. (2025). A Need Analysis MOOC for Based Instructional Material in Flipped English Speaking Class at Indonesian Higher Education. <i>Indonesian Journal of English Language Teaching and Applied Linguistics</i>, 10(1), 125-144</p>	<p>This research aims to find out the characteristics of MOOC-based instructional material for the flipped English speaking class and the model of MOOC-based instructional materials for flipped English speaking class. The researchers implemented the initial phase of qualitative research to achieve their objectives. The study focused on students in the English Language Education (ELE) Department at Indonesian Higher Education, as well as the ELE program's lecturers. The findings revealed that the MOOC-based materials for the flipped-English speaking class were a need analysis to be supportive, accommodating, goal-oriented, and focused on both fluency and accuracy. These materials were diverse, up-to-date, engaging, and motivating. They included both monologues and dialogues suitable for formal and informal contexts, and also incorporated tools relevant to the Fourth Industrial Revolution, such as WhatsApp and Edmodo. The proposed model for MOOC-based materials in the flipped-English speaking class emphasized the integration of key elements: goals, content, activities, venue, and media. The goal was to help learners become proficient in speaking by mastering content that included various topics, language uses, and genres. The model engaged students in nine activities: guessing I, identifying, searching, finding, guessing II, clarifying, evaluating, reflecting, and projecting. The recommended learning venues were both online (using platforms like WhatsApp and Edmodo) and offline (such as classrooms, language labs, and outdoor settings). For media, the model suggested using laptops, LCD projectors, and leaflets during the learning sessions.</p>

1. Introduction

Speaking is a crucial skill for EFL students, enabling them to express thoughts, emotions, and ideas in real-life situations. As Geelan et al. (2021) and Murti and Baso Jabu (2022) noted, speaking involves complex emotional and cognitive processes that contribute to communicative competence. However, students often experience anxiety, fearing mistakes and peer judgment (Bai, 2024). Despite these challenges, Efrizal (2015) emphasized that speaking remains a vital form of communication, facilitating connection and interaction. Therefore, developing speaking skills through targeted instruction and supportive materials is essential for boosting confidence and preparing students for real-world communication.

Instructional materials play a pivotal role in fostering language development, especially in building speaking skills. According to Bukoye (2019), these materials can range from textbooks and videos to interactive digital tools. Duraippah et al. (2021) highlighted that well-structured materials enhance both student performance and teaching efficiency. In speaking practice, materials can model conversations, provide structured activities, and create dynamic learning environments. Wahyudi et al. (2021) further stressed the value of online learning tools, which enable students to practice speaking, interact, and gradually overcome their fear of making mistakes.

MOOCs (Massive Open Online Courses) offer a promising avenue for enhancing speaking skills by providing flexible, accessible learning opportunities. Donitsa-Schmidt et al. (2022) described MOOCs as scalable courses that reach a broad audience through the internet, while Hidayah (2022) noted that they allow students to learn anytime and anywhere, breaking traditional classroom limitations. When integrated with platforms like WhatsApp and Edmodo, MOOCs promote continuous practice and peer interaction, fostering collaborative learning and making them a valuable tool for modern language instruction.

Despite the potential of instructional materials and MOOCs, gaps remain in addressing students' specific needs in flipped English speaking classes. Observations at Universitas Muhammadiyah Parepare during the 2023/2024 academic year revealed that while lecturers use tools like WhatsApp for speaking practice, there is no structured, research-based MOOC model tailored to their context. Existing studies highlight the benefits of online learning, but concrete frameworks for integrating MOOC-based materials focused on speaking skills are lacking. Bridging this gap is crucial for creating a more effective and targeted learning environment.

To address this need, the current research aims to need analysis for MOOC based instructional material model for flipped English speaking classes in Indonesian higher education. The study seeks to identify the characteristics of effective instructional materials, analyze students' needs and challenges, develop a suitable MOOC framework, and evaluate its effectiveness in enhancing students' speaking skills. Ultimately, this research aspires to offer an innovative, technology-driven solution that supports EFL students' language development, aligning with the evolving demands of the Industrial Revolution 4.0 and Indonesia's educational landscape.

2. Literature Review

2.1 Speaking English

Speaking is the ability to communicate with each other for expressing the idea between the speaker and listener. Some experts such as Richards (2008) asserted that speaking is the way

to communicate with each other and express the feeling from listening to the speaker in an idea. To communicate with each other, the speakers should interact with the meaning that involves producing, receiving, and processing information. Then, speaking should be applied for project-based to improve speaking achievements for the students, and it is mini-drama performance.

There are three-parts of speaking process. As the explanation, pre-speaking is part of a process that the speaker begins, plans, and organizes of speaking. Besides, Behnke and Sawyer (1999) urged that pre-speaking is planning to give for the students before the students try to speak in teaching and learning. It is essential to prepare the student's mentality. This part gives the student time to plan for their vocal performance and to be taught the way for managing the time.

However, it is more explained by Brown et al. (2016) and Kuru (2018) described that speaking is the process of delivering the idea and information that the aim is to ask and give direction by having linguistic and cognitive needs for the students. Then, speaking is for the teachers to determine the speaking self-confidence of the students. It is essential to choose the teaching profession and develop a professional skill for the teacher.

For the last, post-speaking is a time for reflection and setting goals following speaking experiences, both formal and informal. Next, it is crucial to have students reflect upon their performance. The strategies to improve speaking skills are discussions, role play, simulation, storytelling, and picture describing (Hartmann et al., 2019; Kayi, 2006; Latifa et al., 2015; Ur, 1999).

2.2 MOOC (Massive Open Online Course)

MOOC is useful for the teaching and learning material for era modern. Some of the researchers, they are Ho et al. (2023), Staden et al. (2023), Minga-Vallejo et al. (2024), and Wu and Luo (2022) explained that MOOC can combine the trending technology to relate the pedagogical aspects, and the use of sophisticated design is also recommended. It is a massive, vast audience, opening and using and managing the Internet to study. Further, it can deliver about learning English outside the classroom wherever and whenever the students are. The aim is that the students participate and access by using the internet. There are many platforms or websites for offering MOOC; they are WhatsApp, Edmodo, Coursera, EdX, MIT Open CourseWare, Udacity, and Futurelearn.

It is correlated for the explanation of the advantages; MOOC has essential to learn the material. As an explanation, a massive open online course (MOOC) is to increase participation and open accessing by using website technology. It is also free and useful for students who want to learn with the freedom to choose the course. Next, MOOC is benefiting in terms of skill acquisition and exposure to new knowledge for updating a thorough website by using the internet itself, and it can be studied towards a career (Al-Mekhlafi et al., 2022; Al-Rahmi et al., 2019; Christensen et al., 2013; Rahman, 2024)

The steps of MOOC based on Baturay (2015), there are six steps in teaching MOOC. They are video learning, assessment, open discussion, reading, live video, social media. Firstly, video learning is commonly divided into duration between 5-10 minutes for each video. Secondly, the assessment used automatically by using multiple choices and the assessment of peer-review, which the students give the score based on the determination of criteria. Thirdly,

open discussions of the students communicate with other students and instructors. Fourthly, reading is online media such as an e-book that is provided by an instructor. Fifthly, live video (Streaming) is as additional for the students to interact between the students and instructor.

There are many platforms to use for MOOCs as learning and teaching, but WhatsApp and Edmodo are the essential part to be applied. Next, Afsyah (2019), WhatsApp Afsyah (2019), Alqasham (2018), Alenazi (2018), and Aharony and Zion (2019) and urged that WhatsApp is available social media to use for the teachers and students in learning and very useful to use and innovative way to learn English. The advantages of using WhatsApp in learning and teaching are to practice the students' learning, to cooperate, and to shift from passive to active learners.

2.3 Instructional Material

Instructional materials play a crucial role in the teaching and learning process, directly impacting students' achievements. Peng and Wright (1994) highlighted that using authentic materials can enhance students' motivation and expose them to real-life language use, fostering more meaningful learning experiences. Building on this, Akbari and Razavi (2016) emphasized that instructional materials must be authentic to prepare students for real-world situations, reinforcing the idea that exposure to genuine language use is essential for language acquisition.

In addition to authenticity, the alignment of materials with students' needs is vital. Irawan et al. (2018) asserted that instructional materials should be appropriate and relevant, positively influencing learners and addressing their educational requirements. Similarly, Ajoke (2017) noted that well-designed materials can capture students' attention and sustain motivation throughout the learning process, whether at the beginning, middle, or end of a lesson. This suggests that the effectiveness of instructional materials lies not only in their content but also in their capacity to engage and inspire learners at different stages of learning.

Furthermore, instructional materials offer significant advantages for both teachers and students. Afsyah (2019) explained that materials assist teachers in facilitating classroom activities, while Torres (2024) described them as valuable tools for supporting language acquisition. Wang and Jia (2023) expanded on this by stating that materials should be designed to preview concepts, complete knowledge gaps, and create a familiar learning environment, thus maximizing their utility. This interconnected view suggests that instructional materials serve as a bridge between teaching goals and students' learning needs, making lessons more cohesive and effective.

The development of high-quality instructional materials requires attention to their characteristics. Lashley (2019) argued that excellent materials are not only appropriate but also positively influence learners, echoing Irawan et al. (2018)'s findings on the importance of relevance and student-centered design. Additionally, Yalçın and Ereş (2018) emphasized the instructional capacity of materials, which encompasses knowledge dissemination, learner motivation, and curriculum alignment. These components work synergistically to support student learning, highlighting the need for a balanced approach that considers both content quality and pedagogical effectiveness.

In summary, previous studies collectively illustrate that effective instructional materials must be authentic, relevant, engaging, and supportive of both teaching and learning processes. By

synthesizing these insights, it becomes clear that developing instructional materials is not a linear task but a dynamic process that integrates authenticity, student needs, and instructional capacity to foster successful learning outcomes.

Massive Open Online Courses (MOOCs) are valuable resources for modern teaching and learning, seamlessly integrating trending technology with pedagogy (Ho et al., 2023; Minga-Vallejo et al., 2024; Staden et al., 2023; Wu & Luo, 2022). These platforms provide flexible, internet-based learning, allowing students to access materials anytime and anywhere, extending English learning beyond the classroom. Popular platforms like WhatsApp, Edmodo, Coursera, EdX, and FutureLearn enhance accessibility and engagement, fostering skill acquisition and career development (Al-Mekhlafi et al., 2022; Al-Rahmi et al., 2019; Christensen et al., 2013; Rahman, 2024). Baturay (2015) outlines six essential steps for MOOC-based learning: short video lessons, automated or peer-reviewed assessments, open discussions, online reading materials, live streaming sessions, and social media interactions. Among the platforms, WhatsApp and Edmodo are highlighted as particularly effective tools for facilitating communication and active learning (Afsyah, 2019; Aharony & Zion, 2019; Alenazi, 2018; Alqasham & Al-Ahdal, 2022). These tools encourage collaboration, student engagement, and a shift from passive to active learning practices.

3. Research Methodology

This research used of a qualitative study strategy because that method has been determined to be most suitable for answering the research questions asked in this research. The reasons that qualitative research methodology used for this research. The study conducted at faculty of language and literature at Universitas Muhammadiyah Parepare for English Literature, South Sulawesi. The data collected in the odd semester with observation, interviews, and questionnaires. Then, it triangulated with interview and documentation. Next, and the researchers analyzed which is divided into four parts, namely data collection, data condensation, data display and conclusion drawing.

4. Results

This part presents the findings of the study dealing with the characteristics of MOOC-based instructional materials for the flipped speaking course and the model of MOOC-based materials for the flipped English-speaking class. The characteristics of instructional material were derived from environment analysis and need analysis for speaking material. The model of the MOOC-based material was derived from the characteristics of the materials.

4.1 The Characteristics of MOOC-based Instructional Materials for Flipped Speaking Course

This part presents the answer to the research question dealing with the characteristics of the MOOC-based instructional material for the flipped speaking course. Before answering the questions, the researchers initially describe the results of the environment analysis and needs analysis.

4.1.1 The Environment Analysis

In this analysis, the researchers gathered data from the lectures and the head of the ELE study program through interviews.

4.1.1.1 Data from the Head of ELE Study Program

Based on an interview, the researchers found some features of the speaking course at the ELE study program. Table 1 describes these features.

Table 1: The data based on interviewing the Head of ELE Study Program

No	Components of the Course	Features
1	Name	In 2018, the name is Speaking II, but it has been changed to Speaking for Formal Setting
2	Credit	Two credits
3	Competency	To express the various simple monologue for straightforward content
4	Description	To learn for the students in English monologue of pre-intermediate level in terms of speaking skill. It contains the theory and practice of using fundamental grammar and language functions as well as vocabulary related to more general contextual topics of everyday conversation.
5	Purpose	To describe and narrate in various ways and contexts.

4.1.1.2 Data from the lecturer of the Speaking Course

Based on an interview, the researchers found some features of the speaking course at the ELE study program. Table 2 describes these features.

Table 2: The data based on interviewing of the lecturer

No	Components	Features
1	The fluency and accuracy of the students in speaking course	Most of the students were competent in speaking course, but two or three students were still deficient in speaking course
2	The common dialect	The common dialect to teach was American
3	The material	Speaking I course dealt with daily conversation and Speaking II course dealt with communication in a formal setting
4	Reference	The references were mostly taken from the book of Jack Richard, YouTube.com, and BBC.com
5	Media	Laptop, LCD, and TV
6	Method	Dialog and discussion
7	The appropriateness of material (to the objectives)	The materials were appropriate because they present contents about informal communication between teachers and students and among the students.
8	The integration of material for technology in industrial revolution 4.0	The lecturer integrated only WhatsApp to the learning process to share links containing notes, videos or pictures
9	Level of Materials	Speaking I was in pre-intermediate level while was Speaking II was intermediate. Both of them have the same project, such as monologue and dialogue. Every level has differences tasks from low to high level.
10	Credit and Number of Meeting	Three credit with 16 meetings

4.1.2 Needs Analysis

This part explains the students' needs of the research; it covers the level of frequency, important, and mastery of the students for speaking course. To get the data, the researchers gave the questionnaire for the students as showing in the tables.

4.1.2.1 The level of frequency in speaking course

This part deals with the frequency. The frequency quantifies the percentage for the students in speaking activities. Table 3 describes the level of frequency for students speaking activities.

Table 3: The Frequency Level of Students Speaking Activities

No	Speaking Activities	Percentage				
		A	U	S	S	N
1	Speaking English on daily activity	3.4	24.1	58.6	13.8	-
2	Understanding of speaking English	13.8	37.9	48.3	-	-
3	Speaking with native speaker	-	20.7	34.5	41.4	3.4
4	Speaking with non-native speaker	10.3	34.5	31	20.7	3.4
5	Having fluent in speaking English	6.9	24.1	44.8	13.8	10.3
6	Discussing by using English on the process of course	13.8	48.3	20.7	17.2	13.8
7	Attending Seminar International	3.4	6.9	6.9	20.7	62.1
8	Doing presentation by using English	24.1	58.6	13.8	3.4	-
9	Having a good grammar for speaking	3.4	17.2	51.7	24.1	3.4
10	Using vocabularies to speak English	10.3	24.1	51.7	13.8	-
11	Using vocabularies to speak English	-	34.5	55.2	10.3	-
12	Having a good speaking	6.9	17.2	55.2	20.7	-
13	Understanding of my partner to communicate each other	13.8	31	48.3	6.9	-
14	Having many vocabularies	13.8	13.8	51.7	20.7	-
15	Reading the guidelines of material from the lecturer	-	41.4	31	27.6	-
16	Having a note on the process of course	17.2	27.6	44.8	10.3	-
17	Reviewing material before entering to the course regularly	3.4	27.6	48.3	20.7	-
18	Having a progress to speak English with the lecturer and friends	3.4	31	48.3	17.2	-
19	Answering the questions from the lecturer correctly	-	37.9	55.2	6.9	-
20	Watching video through internet	24.1	34.5	41.4	-	-

Notes: A = Always, U = Usually, S = Sometimes, S = Seldom, N = Never

4.1.2.2 The importance level of Students Speaking Activity

This part explains the important of speaking course for the students. It deals with the great significance of the students on the perspective of speaking course. Table 4 describes the level of importance for students speaking activity.

Table 4: The Level of Important for Students Speaking Activity

No	The Students' Speaking Activities	Percentage			
		VI	I	NI	VNI
1	Speaking English on daily activity	17.2	82.8	-	-
2	Understanding of speaking English	34.5	65.5	-	-
3	Speaking with native speaker	10.3	89.7	-	-
4	Speaking with non-native speaker	34.5	65.5	-	-
5	Having fluent in speaking English	13.8	82.8	3.4	-
6	Discussing by using English on the process of course	13.8	82.8	3.4	-
7	Attending Seminar International	3.4	82.25	10.3	-
8	Doing presentation by using English	6.9	93.1	-	-
9	Having a good grammar for speaking	34.5	58.6	6.9	-
10	Using vocabularies to speak English	31	65.5	3.4	-
11	Using pronunciation to speak English	37.9	58.6	3.4	-
12	Having a good speaking	34.5	62.1	3.4	-
13	Understanding of my partner to communicate each other	34.5	62.1	3.4	-
14	Having many vocabularies	37.9	58.6	3.4	-
15	Reading the guideless of material from the lecturer	20.7	72.4	3.4	3.4
16	Having a note on the process of course	27.6	69	3.4	-
17	Reviewing material before entering to the course regularly	31	65.5	3.4	-
18	Having a progress to speak English with the lecturer and friends	37.9	58.6	3.4	-
19	Answering the questions from the lecturer correctly	24.1	72.4	3.4	-
20	Watching video through internet	27.6	69	3.4	-

Notes: VI= Very Important, I= Important, NI=Not Important, VNI=Very Not Important

4.1.2.3 The mastery level of the student's speaking skill

This part presents descriptions of the level of students' speaking mastery. The speaking mastery is to know the standard of the students in the speaking course. Table 5 describes the level of students' speaking activity.

Table 5: The level of Students' Speaking Mastery

No	The Questioners of Level of Speaking Material for Students	Percentage				
		VG	G	P	B	VB
1	Speaking English on daily activity	6.9	55.2	37.9	-	-
2	Understanding of speaking English	13.8	65.5	20.7	-	-
3	Speaking with native speaker	-	55.2	37.9	6.9	-
5	Having fluent in speaking English	3.4	34.5	58.6	3.4	-
6	Discussing by using English on the process of course	6.9	62.1	27.6	3.4	-
7	Attending Seminar International	6.9	20.7	48.3	17.2	6.9
8	Doing presentation by using English	3.4	48.3	41.4	6.9	-
9	Having a good grammar for speaking		44.8	51.7	3.4	-
10	Using vocabularies to speak English	6.9	51.7	37.9	3.4	-
11	Using a good pronunciation to speak English	10.3	55.2	31	3.4	-
12	Having a good speaking	-	41.4	51.7	3.4	3.4
13	Understanding of my partner to communicate each other	-	41.4	51.7	3.4	3.4
14	Having many vocabularies	-	13.8	34.5	48.3	3.4
15	Reading the guideless of material from the lecturer	-	34.5	58.6	6.9	-
16	Having a note on the process of course	6.9	58.6	27.6	6.9	-
17	Reviewing material before entering to the course regularly	3.4	37.9	48.3	10.3	-
18	Having a progress to speak English with the lecturer and friends	3.4	24.1	69	3.4	-
19	Answering the questions from the lecturer correctly	10.3	34.5	51.7	3.4	-
20	Watching video through internet	27.6	69	3.4	-	-

Notes : VG = Very Good, G = Good, P = Poor, B = Bad, VB = Very Bad

To know the characteristic of the needs of students for speaking courses, the researchers conducted some steps. They are to determine the potential process by the learners and to identify lack, wants, and necessities. To find those answers, the researchers explain as follows:

Necessities

The necessities of the students and the lecturer during the investigation of researchers are:

1. Giving the speaking ability of the students, so it needs grammar, vocabulary, and pronunciation of speaking material.
2. To be more active in the classroom during the discussion to get the point of learning English.
3. Giving the feedback, whether from lecturer or students each other.
4. Having answer key, discussion, conclusion and reviewing in speaking course

Lack

This part is going to identify the need analysis for the lack of students. The questionnaire found some lacks by giving the questionnaire and interview with the lecturer and students. The lack of students in speaking course as following :

1. Most of the students are on the elementary level to speak English.
2. The students are less of vocabularies to speak English, less grammar to learn, and the pronunciation and spelling also need to improve.
3. It does not provide technology well for the learning-teaching process. Some of the students are still lack of internet. Therefore, the lecturer should make sure before the students enter the classroom. The students' have internet or quota to access the material that has given by the lecturer.

Wants

Wants is about the willingness of the students during of learning and teaching process. The students' wants in the speaking course of this research are:

1. To use English in daily activities in order to speak English fluently.
2. To use the Indonesia language in the learning process because sometimes the students do not understand English well. So, it should combine between English and Indonesia language.
3. To attend seminar international for applying their speaking in order to speak with the native or non-native speaker in the speaking course.
4. To provide the review, conclusion, and key answer to the material for the students, so it is easy for the students when they are at home to learn English.
5. To apply the right technology such as Edmodo and WhatsApp during the learning process because it is good enough to apply and also students are happy and interesting to share with each other about speaking material.

4.1.3 The Characteristics of the Materials

Based on the environment analysis and the needs analysis which covers lacks, wants, and necessities, the researchers then put some characteristics of MOOC-based materials for the flipped speaking course forwards. The following are those characteristics:

1. The materials should *facilitate* the students with some activities to obtain the required competency of the course. The required competency is to express the various dull monologues for straightforward content.

2. The materials should *accommodate* students with monologue and dialogue of pre-intermediate level in terms of speaking course. It contains the theory and practice of using fundamental grammar and language functions as well as vocabulary related to broader contextual topics of conversation.
3. The materials should be *goal-oriented* to achieve the purpose of the speaking course, which is to describe and narrate in various ways and contexts.
4. The materials should have fluency and accuracy, which is focusing on the student in speaking courses to make the students improve their speaking skills.
5. The materials should provide *various* accents of English that the students can communicate with each other in some dialects.
6. The materials should cover not only *formal* communication but also *informal* one which can be obtained from some references
7. The material should be *updated* to integrate the demand of this new era of industrial revolution 4.0 like the utilities of WhatsApp and Edmodo (Industrial Revolution 4.0 tools)
8. The material should cover *interesting* learning activities by involving students with games such as quizzes, chats, and voice notes to support their subskills competencies
9. The material should *stimulate* students with the experience of the international seminar
10. The material should have a *review* of the material regularly before the students study the speaking course.

The characteristic of MOOC-based instructional material for the flipped speaking course covers the competencies and objectives of the course for the material. The material should provide monologue and dialogue in communication for a formal setting. It also integrates the demand for the new era of industrial revolution 4.0, for instance, WhatsApp and Edmodo. To make it more interesting, it sets of quizzes that require grammar, vocabulary, spelling, and pronunciation.

4.2 The Model of a MOOC-Based Instructional Material for Flipped English speaking class

In this part, the researchers answered the question model of a MOOC-based instructional material for the flipped English speaking class. This question aims are to find out the model of MOOC-based instructional material for a flipped English speaking class in the English Education Department in Universitas Muhammadiyah Parepare. The researchers need analysis of MOOC-based instructional material for the flipped English speaking class. Then, the researchers gave to the experts who are master it to analyze and revise the material. The aims apply whether it is available or not as a resource to teach for flipped English speaking class. There are four parts of this course model: they are:

1. Material

The material in learning and teaching are important to give to the students. It is for enhancing the student's ability to speak. The point of this part is to give knowledge of the learning-teaching process. There are three parts, namely:

- a. The topic is divided into three parts, for instance, business, social, and entertaining. Business is important because it obtains the usefulness as a target of being a worker

for students' life in the future. The business also gives the perspective for the students as a carrier for their startup success. To gain business, it should have a social aspect in order to consummate the students for socializing among friends for better communication. For the last, education is important also because it is a main idea or knowledge for the students. Besides, it is to entertain the students in the teaching-learning process.

- b. Content deals with greetings, complaining, speech, debate, and public speaking. The main for the greeting part is to speak with people when the students meet new people for life. Not only greeting, but complaining is also the main content to deliver the idea of the students. To deliver the idea as the same as speech, which is to improve the speaking ability for the students. In line with complaining, the point of debate is to make critical thinking of the students while the students are speaking, and the last is about public speaking. Public speaking is to improve confidence in speaking to the students in front of people.
- c. Genres, the genres are about presentation, speeches, interviews, and formal.
- d. The presentation tells about the performance of the students in the classroom. The aim of this part is the students can speak English and improve the speaking ability for the students. Then, an interview is to speak to each other of the students and lecturer in order applying in daily activity and formal conversation that is knowledge for the students to use, whether it is in the informal and formal situation.

2. Activities

In this part, activates are about the steps in learning and teaching material during the course. There are nine activities. They are guessing I, identifying, looking for, finding, guessing II, clarifying, evaluating, reflecting, and projecting. The explanation has been elaborated on figure 1 detail

3. Venue

This part is about the venue. It talks about the place to organize this kind of instructional material. There are two parts of this venue, namely online and offline. Online is elaborated for two tools. They are WhatsApp and Edmodo applications. Those applications combine each other to make instructional material for the flipped English speaking class . The information is taken from the need analysis and some experts to present the material for the characteristic of model a MOOC and the students' needs at flipped English speaking class . There are through applications that applying in MOOC based instructional material for the flipped English speaking class as following:

4. Media

Media is the tool that the researchers used in teaching and learning material. It supports to facilitate in the classroom. The media in this instructional material is a laptop, LCD projector, and leaflet. The laptop is used to facilitate the teaching and learning material, LCD projector is to show the material in visual in order the student more understand and leaflet is to make the students more interesting in teaching and learning material.

5. Assessment and Evaluation

Assessment and evaluation are the evaluation of the model for the students to measure the ability to speak English.

The Activities of MOOC based Instructional Material for Formal Setting figure below:

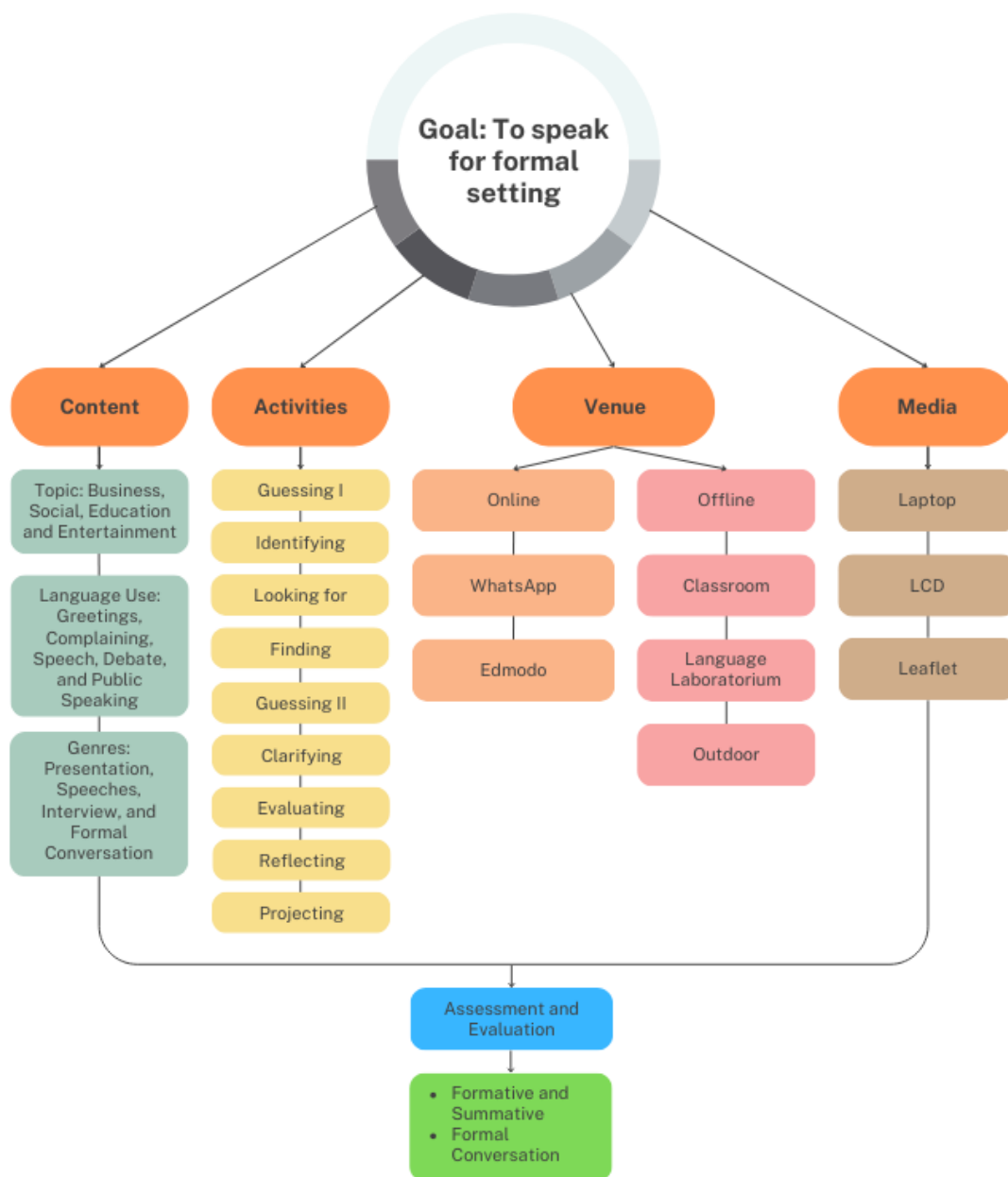


Figure 1 A Need Analysis for Speaking for Formal Setting

The Activities of MOOC based instructional material for a formal setting figure. There are some parts to explain the framework; they are:

a. Guessing 1

In this activity, the students watch the video from Edmodo that provides by the lecturer. The students tried to repeat the pronunciation that related to the material in the activities through WhatsApp by using a recorded voice. This activity aims to prepare and to exercise the speaking material before the students attend the classroom. In attending the materials, the students watch once for the video after that the students repeat and spell the pronunciation, which is corrected by the lecturer in the classroom. The activity (video) studied a day before the students have a speaking course.

b. Identifying

The aim of identifying is to exercise the imaging after watching the video before the students discuss the conversation. Then, the student's access the videos through Edmodo Application after that, the students answer the questions based on 5W + 1H through WhatsApp. After that, the students are going to discuss and practice it for offline. The students give about their statements in WhatsApp Application. It is about the students' answers based on 5W+1H. The students ask and answer the questions with their group. The students are in a group. It consists of 6 students in a group. There are four groups in the classroom.

c. Looking for

This activity aims to focus on the video. The researchers ask the students to find out the main idea of the topic itself. Furthermore, the students focused on the video. Then the students have to collect the answer through Edmodo with the deadline. The question gave through a quiz in Edmodo Application.

d. Finding

In this activity, the students stay focused on the answer about previous activities, whether the students are right or wrong. The students know about their score then the students and the lecturer discuss in the classroom about the topic in Edmodo Application.

e. Guessing II

By this activity, the students try to expect the video, and the students try to practice that relates to the natural video condition such as speech. The students guess and practice in the video by recording their video through Edmodo Application and send to the lecturer f. Clarifying

In this activity, the students clarify the right answer from the lecturer and the lecturer the Clarifying the answer to the students. After that, the students ask the students to explain again what the lecturer has explained.

f. Evaluating

This evaluating activity aims at training the students that every single student practices their performance in front of the class as a result that they have discussed before. The students make videos and summaries.

g. Reflecting

The students are invited to give some opinions, views, and comments about the activity by speaking English. The student also tries to give the strength and weaknesses of what they have gotten from this activity.

h. Projecting

This task involves the student's guide of the students. They have to find vocabulary and to make a sentence. Then, the students send through Edmodo. Before discussing the next chapter, the lecturer has only three people to know present what the students have gotten in their home.

That is the findings of need analysis, the characteristic, and the model of MOOC for instructional material of flipped English speaking class. Need analysis aims to find out the

students' needs in the learning process and top priorities of the suitable materials for the students. The students' needs determine the characteristic of the material, which is the best learning activities in the teaching and learning process. The characteristic is standards to create a model MOOC based on instructional material of flipped English speaking class in Indonesian Higher Education.

5. Discussion

After the researchers conducted need analysis, the researchers found the characteristic of the material. The students' needs have little knowledge of speaking. In line with the experts, speaking is an important skill because speaking is the ability to communicate with each other for expressing the idea between the speaker and listener. Besides, Xu et al. (2025) said that speaking ability is the capacity of expressing their feeling by some words in the English language for getting the purpose of conversation itself, using the language structure and vocabularies in the functional context, using a certain pronunciation, and applying appropriate ways in the English language. Next, (Usera, 2023) urged that speaking is one of the ways to communicate with each other for expressing our ideas and thinking in a message orally. As long as the students communicate with each other, people need to apply the language in real life as communication.

Furthermore, Rao (2019) described that speaking is a complete skill than the other skills that to be taught everywhere, and it is better when the students learn in a group. Likewise, Nurwachid (2018) stated that speaking is interactive to make a meaning that involves producing, receiving, and processing information. Speaking should be applied for project-based to improve speaking achievements for students, namely mini-drama performance, discussion, and dialogue. Then, the researchers found during this research that the students have a low ability to speak English. In order to improve their speaking ability, the research covers speaking for the material and integrates the technology for industrial revolution 4.0.

Not only for speaking, but the characteristics of the material are also to be applied for MOOC (Massive Open Online Course) such as WhatsApp and Edmodo because MOOC is useful for the teaching and learning material on the era revolution 4.0. Reich and Ruipérez-Valiente (2019) demands that MOOC has been a massive interest in the field of education from the outset, giving rise to a significant number of research studies. Moreover, MOOC can combine trending technology to relate the pedagogical aspects and the use of sophisticated technology. Czerniewicz et al. (2017) and Ginting et al. (2022) explained the meaning of massive as the availability for a vast audience, facilitating to study and no payment, online is because of using and managing the Internet to study. Course describes the beginning and ending to know knowledge and upgrading of previous knowledge as well as undergoing evaluation.

Based on the experts' explanation for MOOC, the researchers found in the field that MOOC can be applied in the teaching and learning process. There are many platforms as MOOCs should be used in the teaching and learning process, but WhatsApp and Edmodo are better applications to be used. Those applications combined with the flipped teaching and learning. It makes it attractive for students to study English. Most of the students were excited to use it because it integrates the learning and teaching process.

Besides, Hockly & Dudeney (2018) and Haleem et al. (2022) stated that MOOC is one of the examples the way digital technologies can deliver about learning English outside the classroom wherever and whenever the students are. So, the students are easier to understand the material without sit down in the classroom. The students have a willingness to find information through technology by using their handphone wisely.

Then, Milligan & Littlejohn (2017) are other perspectives about the understanding of the MOOC. It is behavioral of the learners of the self-regulation and associated study in the education of using the feedback from the learners itself. Another field of literature that had explanatory power for understanding the behavior of learners in MOOC is the study of self-regulation of learning, and the closely associated study in the education of the use of feedback by the learner.

Muhammad et al. (2016) explain that Massive Open Online Course or MOOC is the emerging learning platform aimed for participation and access by using the internet. MOOC is a crucial instrument to combine learning and teaching. It is also to provide interactive learners forums for supporting the community interactions between teachers and learners.

For the last, Soyemi & Babalola (2018) one of a tool in learning is MOOC. It stands for Massive Open Online Course. MOOC is a virtual classroom that the teacher and students can interact to add knowledge for lifelong skills. The learning material is usually recorded video the lecturers and discussion by co-operating with the university that the students can become available to access or no costs for the students. There are many platforms or websites for offering MOOCs such as Coursera, EdX, MIT Open CourseWare, Udacity, WhatsApp, Edmodo, and Future learn.

Based on the experts' explanation, the researchers found out that MOOC is easily for the students to use WhatsApp and Edmodo. After giving the material to the students through WhatsApp, the students can ask the lecturer and guide them for an online method in the classroom. By this platform, the lecturer gives students a chance to ask the questions, and the lecturer replied to those questions.

As an explanation, WhatsApp combined with Edmodo. The researchers created a model of MOOC-based instructional material for the flipped English-speaking class that has a goal to speak for a formal setting. There are four parts of the material, such as material, activities, venue, and media. The material consists of topics, content, and genres. Next, activities are elaborated for guessing I, identifying, looking for, finding, guessing II, clarifying, evaluation, reflecting, and projecting. After that, the venue is divided into two. They are online (WhatsApp and Edmodo) and offline (classroom and language laboratory). For media are categorized laptops, LCD projectors, and leaflets. The last is the assessment and evaluation.

Based on the explanation of the model, it is correlated with some experts of the good characteristic in instructional material have some items such as good instructional material, and it has its characteristic for better instructional material. Irawan et al. (2018) said that appropriate materials give a positive influence on the learners, and it must be a correlation with the students' need of the material. For those reasons, it is necessary to do it. It helps the students to study efficiently because the material relates to the job in the future. By designing the learning media through the material, it gives the learners the possibility to study alone without guidance from the teacher then the teacher encourages the students' motivation so that the learners are more active and improve the learners' ability

Furthermore, Yalçın & Ereş (2018) explained that instructional material pays attention to the capacity of the material. There are some characteristics of elaborates them. The instructional capacity is divided into some components. There are three components; they are the knowledge, skills, and preparation of the teachers, the motivation of the learners, and the curriculum materials for the teachers and students. Then, for making instructional material, materials must be previewed that is full of the knowledge of the material based on (Ajoke, 2017).

The development paradigm is being applied for learning environments. It is one of the instructional systems design facilities about instructional systems by responding that consist of context, and interaction between contexts (Branch, 2009). Besides, the researchers found the student's score, student's perception, and perspective of two experts. The researchers recorded the video to measure the improvement of the student's speaking ability.

After conducting the previous steps, the researchers exhibited less encouraging results. In the meeting I, the researchers got an average of 55,22, and it is categorized fair even if the score was fair. However, for meeting II, the result of the average of the students' score is categorized as useful. It means that the instructional material has been successful enough to apply this research. After conducting this research, it is proved that the limited test has a good perception for the students in teaching and learning instructional material of speaking. It means the developing of the material good to apply in teaching as a model of a MOOC-based instructional material for the flipped English speaking class .

6. Conclusion

The researchers came to the conclusion that the MOOC-based resources for the flipped-English speaking class and the following qualities: they were facilitating, accommodating, goal-oriented, based on accuracy and fluency, varied, up-to-date, engaging, and stimulating. This conclusion was based on the findings in the preceding sections. Both formal and informal settings should have dialogue and monologues in the material. Additionally, it incorporates the demands of the new industrial revolution 4.0 age, such as Edmodo and WhatsApp. The aim, contents, activities, location, and media should all be integrated as key components, according to the MOOC-based materials paradigm for flipped-English speaking class es. The objective was for the students to be proficient in speaking in order to grasp the material, which included a variety of subjects, genres, and linguistic usages. Nine tasks, including guessing I, recognizing, searching, finding, guessing II, clarifying, assessing, reflecting, and projecting, were also given to the pupils by the model. The model recommended both offline (classroom, language lab, and outdoor) and online (WhatsApp and Edmodo) learning environments. As the media, the model prompted the utilization of the laptop, LCD Projector, and leaflet during the learning activities. For the suggestions of the next researchers are to find out other field of research and huge of sample related for this study.

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