

**DEVELOPING A QUESTIONNAIRE TO MEASURE THE EFFECTIVENESS OF
A SPEAKING BOOK FOR NON-ENGLISH DEPARTMENT STUDENTS
DURING THE COVID-19 PANDEMIC**Arif Setiawan¹, Dwiyanto Djoko Pranowo²^{1,2}Yogyakarta State University¹arifsetiawan.2019@student.uny.ac.id, ²dwiyanto@uny.ac.id**Abstract**

The development of learning materials requires the measurement of the effectiveness of the developed materials. A valid and reliable instrument is a necessity for such measurement. This article describes the validation and reliability test of an instrument to measure the effectiveness of a speaking book for non-English department students. The instrument is in the form of a questionnaire and designed to be used at the end of the field implementation of the book. It involves 30 non-English department students in an offline learning situation that strictly adhered to the health protocols during the Covid-19 pandemic. Based on the expert judgment, all of the items in the instrument were considered valid. After the validation process, a pilot test involving 10 non-English department students was conducted to measure the reliability of the instrument. The students were asked to answer questions such as whether the instrument's instructions were clear, whether some of the questions were difficult to understand, or whether the length of the instrument was acceptable. The results of the pilot test were largely positive and minor revisions were conducted based on the students' suggestions. Both the expert judgment process and the pilot test were conducted online. This study concludes that the instrument is valid and reliable. As such, it is ready to be used to measure the effectiveness of the developed materials.

Keywords: questionnaire development, speaking skills, non-English department, validation

1. Introduction

The curriculum implemented at educational institutions in Indonesia makes it absolutely compulsory for English to be taught at all tertiary level study programs. As has been explained by Megawati (2016), English must be taught at all study programs at higher-education institutions in Indonesia. All students are expected to possess mastery of speaking skills, in addition to the other three language skills, namely listening, reading, and writing skills. After all, as Nazara (2011) has elaborated, mastery of speaking skills is essential because English is the official international language and that speaking skills are vital for students to master as they enable them to communicate easily. It is worth noting that speaking skills also enable students to successfully master the three other

language skills. Marshall (2011) deduced that speaking activities during English classes provide students with opportunities to practice the three other language skills in addition to speaking skills. Marshall also added that speaking activities support the development of students' critical thinking skills as well.

Additionally, Rezaeyan (2014) stated that speaking skills do not only improve one's language competency but language growth as well, both aspects playing vital roles in the improvement of structure, grammar, fluency, vocabulary, and even skills related to socio-cultural aspects. Haidara (2016) explained that our personalities, self-image, and knowledge of the world, as well as our ability to reason and express what we think reflects in our oral performance in a foreign language. He

added that the majority of English learners tend to measure their language skills based on their speaking skills.

The fact that speaking skills are of high importance because they reflect one's language mastery means that an English teacher needs an appropriate method in order to be able to promote their students' speaking skill improvement with great effectiveness, as concluded by Shteiwi & Hamuda (2016). After all, as Hastuti (2018) stated, speaking plays an essential role in directly showing learners' improvement in relation to both learning and acquiring a targeted new language. This correlates with Richards' (2008, p. 106) statement that learners frequently consider an improvement of their speaking skills as a measurement of the success of their language learning.

The importance of speaking skills, along with the three other skills, has long been highlighted in Non-English majors of the tertiary level of education in Indonesia. Emaliana (2008, p. 2) elaborated that English is taught in the form of English for academic purpose (EAP), also called English for specific purposes (ESP), which requires students to speak, at non-English majors in the tertiary level of education. Akhyak & Indramawan (2013) also explained that English must be taught communicatively at higher education institutions in Indonesia, adding that speaking is the primary skill that needs to be developed at such institutions. Additionally, Fanani (2014, p. 24) also stated that the teaching of English at non-English majors mainly focuses on the speaking skills.

Teaching English at non-English majors in the tertiary level of education in Indonesia stresses the importance of speaking skills, as has been elaborated by Emaliana (2008), Akhyak & Indramawan (2013), and Fanani (2014), among others. Additionally, in her book about the perception of English from the point of views of staff and students at Yogyakarta-based universities, Dewi (2014) also elaborated that speaking competence in English is something that both English department and non-English department

students must possess. Rahmaniah & Asbah (2018) also stated that English is a compulsory subject to be taught in the form of English for Specific Purpose at non-English majors, eliciting the high importance of speaking in the learning of English at such majors.

It is worth mentioning that non-English department students themselves agree that speaking skills are undoubtedly important. In a study about Non-English department students' motivations in their English language learning, Jin (2014) discovered that students are highly motivated to be able to talk to various people in English and to communicate freely with English native speakers. In their study, Ninsisana and Nawa (2017) also found that most Non-English department students prefer English lessons that highlight direct practices, which strongly indicates that speaking skills are highly favoured by Non-English department students.

Despite the fact that Non-English majors expect their students to be able to speak in English, the reality often dictates otherwise. Unfortunately, there are still quite a lot of problems in the teaching of English at Non-English majors that we have found. For example, Jin (2011) mentioned that limited vocabulary, along with insufficient input of western cultural background information, constitutes one of the most appalling problems in the teaching of English to Non-English department students. These findings are supported by Dewi & Jimmi's (2018) findings, which show that students who are lacking in vocabulary face problems when the time to engage in an interaction comes and thus, they would have less confidence to speak. Fear of mistake and shyness are among the problems that hinder the teaching of English to Non-English higher-education students as well, as Juhana (2018) has found.

Abrar et al.'s (2018) study, which aimed to document Indonesian EFL students' experiences related to speaking in English, also uncovered a number of problems, which included anxiety and problems that had something to do with the learning environment or the manner in

which lecturers delivered their lectures. Nuraini's (2016) study addressed another problem, which was the use of one's native language on the teachers' part during their teaching. In his study, Aditya (2017) also discovered a number of problems related to grammar, vocabulary, and pronunciation that hindered students from developing their oral competence. Nikmah's (2019) study revealed another problem, which was low or uneven participation. Lastly, Ratnasari (2020) found that unsupportive environment also became one of the biggest problems that prevented learners from gaining speaking competence.

All of the aforementioned findings showed that the development of new materials that address them would contribute to solving the problems in a more effective manner in the long run. Naturally, in order to measure the effectiveness of such newly developed materials, one would need a valid and reliable instrument. Such instrument could be used in the Post-Use Evaluation of the materials, as suggested by Tomlinson & Masuhara (2013). As such, this study focuses on the development, the validation, and the reliability test of such materials.

In our research, we developed speaking skills learning materials based on the Semester Learning Plans used at Non-English majors of Yogyakarta State University. The materials were based on the Natural Order Hypothesis. Being used as the focuses of various studies, most notably by Liu (2015), Bahrani, Tam, & Nekouezadeh (2014), and Rexhaj et al. (2018), among others, the hypothesis can be applied to English learning to help early learners, in this case, non-English department students, acquire English successfully. In relation to the hypothesis, Fardhani (2016) explained that students can acquire a language successfully when the learning tasks are made incidental to tasks that involve communicating with others about things that are inherently interesting. The hypothesis can help non-English department students acquire English more naturally following the order of the parts of the language that early language learners acquire, which have been elaborated by

Krashen (2013). The use of the hypothesis in the development of the materials can hopefully help non-English department simultaneously gain oral and grammatical competence, as well as fluency and accuracy without any of them being neglected in order to accomplish the goals specified in the Semester Learning Plans.

It is worth noting that the hypothesis can be used in the andragogical domain, as Wegner (2013) has highlighted that the hypothesis' natural order of acquisition does not only concern children but all people across all age levels. The materials that we have developed have been validated by experts and after the field implementation of the materials, as suggested by Tomlinson (2011) and Tomlinson (2012), a Post-Use Evaluation stage must be done to measure the effectiveness of the materials. As such, we have developed an instrument, which is in the form of a questionnaire, to measure the effectiveness of the materials we have developed. This study focused on the validation and the reliability test of said instrument. The research questions were 1) how to develop an instrument to measure the effectiveness of speaking materials for non-English department students is, 2) How the validation of such instrument is conducted during the Covid-19 pandemic, and 3) How the reliability of the instrument is measured.

2. Method

This study focused on the development, validation, and reliability test of an instrument to measure the effectiveness of speaking skills materials for non-English department students. First of all, to develop the instrument, a table of specification of the questionnaire was created based on the five primary components of speaking skills (Harris, 1974; Brown, 2004) and the universal criteria of material evaluation (Tomlinson & Masuhara, 2013).

After constructing the table of specification of the questionnaire, a set of 20 questionnaire items was created. The items of questionnaire were then validated through expert judgment. All 20 of the developed items were deemed valid.

However, during the validation process, it was suggested that additional items were added to the list. The additional items must include aspects such as content, presentation, language, and graphics. Thus, additional items based on BNSP-proposed criteria were added to the list. After the revision, the questionnaire was finalized with 51 items in total.

Upon the completion of the instrument validation, a pilot test was conducted to measure the reliability of the instrument. The pilot test involved 10 Non-English department students, who were asked to answer questions such as whether the instrument's instructions were clear, whether some of the questions were difficult to understand, or whether the length of the instrument was acceptable. It is worth noting that due to the Covid-19 pandemic, both the validation process and

the reliability test of the instrument were conducted online.

3. Findings and Discussion

A table of specification based on the five primary components of speaking skills, namely comprehension, grammar, vocabulary, pronunciation, and fluency and the universal criteria of material evaluation was created as the first step of developing an instrument to measure the effectiveness of speaking materials for non-English department students.

The table of specifications based on Harris (1974) and Brown's (2004) components of speaking skills included two comprehension-related indicators, two grammar-related indicators, two vocabulary-related indicators, two pronunciation-related indicators, and three fluency-related indicators. The organization of the table of specifications is as follows:

Table 1. Table of Specifications Based on Components of Speaking Skills

Aspects	Indicators	Item Number
Comprehension	a. A student's capability to respond in an oral communication.	1
	b. A student's capability to initiate an oral communication.	2
Grammar	a. A student's capability to arrange a correct sentence during a conversation.	3
	b. How well a student displays grammar mastery during a conversation.	4
Vocabulary	a. A student's capability to communicate or express their ideas effectively in the oral form.	5
	b. A student's capability to use appropriate dictions during an oral communication.	6
Pronunciati	a. A student's capability to	7

on	speak clearly and in a manner that is easy to understand.	
	b. A student's capability to speak in English with the correct pronunciations of the words they utter.	8
	a. A student's ability to speak smoothly and expressively in English.	9
Fluency	b. A student's ability to respond in English clearly and concisely in a manner that is relevant to the context.	10
	c. A student's ability to speak smoothly with only a small number of pauses.	11

The table of specifications based on Tomlinson & Masuhara's (2013) universal criteria of material evaluation included indicators related to exposure to the language in use, doable tasks, engagement, opportunities to use the target language, cultural awareness, communicative use, one indicator related to learner discovery, and the achievability of the stated objective. The organization of the table of specifications is as follows:

Table 2. Table of Specifications Based on Universal Criteria of Material Evaluation

Aspects	Indicators	Item Number	Discovery	know about how English is typically used.	
Exposure to Language in Use	The degree of the exposure to English.	12	Achievability of Stated Objective	How well the materials achieve its stated objective, which is the improvement of the students' speaking skills.	20
Doable Task	The tasks presented in the book are doable.	13	<p>After the construction of the tables of specifications, a set of items was then written based on the aforementioned indicators. Items were in the form of statements and presented in two languages, English and Indonesian, in order to make it easier for non-English department students to fill the questionnaire. The results of the survey were calculated using the formula proposed by Sugiyono (2015:135), who stated that answers to items in a questionnaire can be presented in the form of degrees of agreement that represent each item. The table below presents the degrees of agreement with the items along with the scores that represent them to be used in the questionnaire.</p>		
Engagement	The materials are engaging.	14			
Opportunity to Use the Target Language	The materials provide the students with opportunities to use English for communication.	15			
Cultural Awareness	The materials help students to develop cultural awareness.	16			
Communicative Use	a. The materials help students make use of the English environment outside the classroom.	17			
	b. The materials help students become effective communicators in English.	18			
Learner	How much the students	19			

Table 3. The Scoring Rubric of the Questionnaire

Degree of Agreement	Score
Strongly Agree	4
Agree	3
Disagree	2
Strongly Disagree	1

A descriptive analysis on the scores was to be conducted after the survey using the following formula.

$$P = \frac{\text{overall score}}{\text{ideal score}} \times 100\%$$

ideal score

The descriptions of the formula are as follows:

P = Percentage
 Overall score = All of the scores obtained from the survey
 Ideal score = (Highest score) x (number of respondents)

The percentage obtained would indicate the effectiveness of the developed materials in improving the respondents'

speaking skills. The measurement of the effectiveness of the developed materials based on the percentage obtained using the

above-mentioned formula is described in the following table.

Table 4. The Effectiveness Criteria of the Developed Materials

Degree of Effectiveness	Score
Very Effective	76-100%
Effective	51-75%
Less Effective	25-50%
Ineffective	0-25%

Addressing the validation of the instrument, the questionnaire items were then submitted to expert to be reviewed and validated. The validation process was conducted online with the help of university staffs. According to the expert, all of the 20 items were deemed valid under the condition of that several additional items must be added. In other words, all of the items could be used to measure the effectiveness of the developed materials.

Additional items must be added in order to perfect the instrument. It was suggested that the additional items must

include aspects such as content, presentation, language, and graphics. Thus, additional items based on BNSP-proposed criteria were added to the list and the instrument was then again consulted for revision. After the revision, the questionnaire was finalized and now consisted of 51 items in total. Finally, the instrument was deemed valid and no further revisions were needed. The additional items include 12 items related to content, 5 items related to presentation, 5 items related to language, and 9 items related to graphics. Below is the table of specifications for the additional items:

Table 5. Table of Specifications for the Additional Items

Aspects of Evaluation	Indicators	Item Number
Content	a. The content is appropriate with the students' needs.	21
	b. The content is easy to understand.	22, 23, 24, 25, 26, 27, 28
	c. The content covers what the students need for their learning.	29
	d. The content's depth is good.	30, 31
	e. The content is accurate.	32
Presentation	a. The manner in which the materials are presented is in line with the students' needs.	33, 34

developed materials after the completion of the field implementation of the materials.

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