Constructing WhatsApp-based Speaking Instructional Material (WABSIM) for EFL Teaching and Learning: A Need Analysis

¹Maulina, ²David Geelan, ³Muhammad Basri, ⁴Nurdin Noni

¹Muhammadiyah University of Kendari, Indonesia

²Griffith University, Australia

^{3&4}State University of Makassar, Indonesia

Corresponding Author: lina821431@yahoo.com

Bio-profiles:

Maulina is a lecturer at the English Education Study Program, Faculty of Teacher Training and Education, Muhammadiyah University of Kendari, Indonesia. She has been presenting some of her research articles in TESOL conference in partnership with Universitas Negeri Makassar, ASIA TEFL conference in Macau, China, TEFLIN conference, 2nd international virtual conference, the Asian ESP Journal and Asian EFL Journal international virtual conference, and some more. She has also been awarded scholarship from the Indonesian Ministry of Research, Technology, and Higher Education in her Doctoral study under Beasiswa Unggulan Dosen Indonesia Dalam Negeri (BUDIDN) granted by the Indonesia Endowment Fund for Education (LPDP) and also she got a scholarship to write research articles for international publication in Griffith University, Australia. Her research interests lie in English language teaching methodologies, instructional materials development, mobile learning, gender issues, new technology use in EFL teaching, and social media in EFL teaching and learning. She can be reached at lina821431@yahoo.com.

David Geelan is an Associate Professor in Science Education at Griffith University in Gold Coast Campus, Australia. His research interests include science education, educational technology, interactive simulations, and teacher explanations. David Geelan can be reached at d.geelan@griffith.edu.au.

Muhammad Basri is a Professor in the English Education Study Program at State University of Makassar. He is currently the Head of English Education Study Program for Doctoral Program as well as the Co-Promoter of the first author of this paper. He teaches courses related to English skills. His research interests include materials development, multimedia learning materials in teaching English speaking, and applied linguistics. His email is muhammadbasri@unm.ac.id.

Nurdin Noni is a Professor in the English Education Study Program at State University of Makassar. He is the Promoter of the first author of this paper. He teaches courses related to Information and Communication of Technology (ICT) in English as a foreign language teaching. His main research is ICT in EFL teaching. His email is nurdinnoni@yahoo.com.

Abstract

Today's English teaching and learning speaking in the digital era at the university level is full of challenges but promotes many possibilities. WhatsApp, the most popular social media used for communication, can be interactively utilized to study speaking about daily conversations in a flexible way anytime and anywhere to solve students' speaking problems as well as one of the teaching and learning media in the disruptive era. This research was trying to develop WhatsApp-based speaking instructional material (WABSIM) for the Basic Speaking subject to help students speaking English effortlessly and fast about daily topics. This research was the first step of Research and Development (R&D) of the ADDIE model i.e., to analyze students' needs to learn Basic Speaking through WhatsApp instructions. The research took place at the English Education Study Program of one private university in South East Sulawesi, Indonesia. Sixty-eight (68) students participated in giving information regarding to the students' needs through an online survey in the Google Form. It revealed that students wanted to learn the Basic Speaking materials integrated with mobile technology in the form of social media of WhatsApp to make the learning is fast, enjoyable, fun, more communicative, more collaborative, and help them learning anytime anywhere, in and outside the classroom more independently. Also, students need real-life topics, authentic, interactive, and presenting domestic and international viewpoints in the WABSIM. Besides, the developed speaking materials should cover the audio and visual materials to cover students' learning styles varieties, and the materials should include the speaking components such as vocabulary, grammar, pronunciation, fluency, comprehension, and task. Data resulting from the needs analysis informed the researchers of crucial issues to consider in developing WABSIM for the

design, development, implementation, and evaluation in the next phase of this project. Further, students' preferences and learning goals can be integrated with perspectives from the mobile learning literature and the affordances of WhatsApp to facilitate communication, collaboration and interaction in ways that have the potential to accelerate English language learning on the part of university students. There would be value in conducting similar needs analyses for other mobile learning instructional material development processes internationally, both for comparison with the Indonesian results here and in order to inform those development processes.

Keywords: *Need analysis, mobile technology, social media, speaking skill, WhatsApp, WABSIM*

Introduction

Mobile learning is considered to have potential as today's learning model. Mobile technologies allow learning anytime and anywhere (Popescu, 2011, p.90) and can support lifelong learning. According to Arif (2019), an innovative revolutionary approach towards learning is identified through mobile in this 21st era. A needs analysis was conducted to determine the speaking models, speaking situations, speaking styles, speaking components, speaking contents, speaking contexts, speaking topics, speaking activities, and speaking material adaptation in the form of WhatsApp-based (WAB) instruction that suit with challenges and opportunities offered in this era. Instructional approach is crucial and it helps educator meets students' needs in learning activities (Maming, et al., 2020).

Karademir, et al (2019) suggests that a platform for English language learning is needed particularly speaking materials which enable students to access them anytime, anywhere. This allows students to communicate actively, build confidence in speaking, extend their learning and flip the speaking classroom. A few studies have explored the provision of English teaching materials in general, but none has developed instructional materials for teaching speaking skills for university students using WhatsApp (Speroff, 2016).

Kukulska-Hulme et al. (2015) argue that mobile technologies in the classroom provide an additional platform for interaction and communication and that these technologies expand and extend the territory where language can be rehearsed and practiced. By developing materials based on a need analysis, it is expected that it will be possible to actively engage the students to communicatively perform oral communication in English in their day to day interactions both on campus and in society more generally. This frequent practice in authentic

contexts has the potential to promote students' independent learning, motivation, and enhance their speaking skills (Maulina, Noni, Basri, 2019). The findings of this analysis, the proposed speaking module called WhatsApp-Based speaking module (WABSIM) is developed and evaluated.

Literature Review

Social Media in EFL Teaching

Social media differ from traditional or industrial media in many ways, including quality, frequency, usability, immediacy, and permanence. Social media operate in a dialogic transmission system (many sources to many receivers) (Pavlik & MacIntoch, 2015). Social media like Twitter, Facebook, and Instagram are primarily used as media for sharing pictures and text (Munir, 2017) while WhatsApp, Facebook chat, BBM, LINE, Yahoo Messenger, and Skype are chatting media (p.75). Kietzmann, Hermkens, McCarthy, and Silvestre (2011, pp. 243-247) present a framework that defines social media using seven functional building blocks: identity, conversations, sharing, presence, relationships, reputation, and groups.

One of research sample of developing learning resource integrated with the social media in EFL teaching was a research by Sakkir (2017). She conducted a study on the use of Facebook in developing writing instructional material. This work revealed that students in the English Department at STKIP Muhammadiyah Rappang achieved significant writing achievement improvement through using Facebook. She found that writing material developed via Facebook can assist students in solving their writing problems, and that the students highly valued the use of Facebook in teaching English writing.

WhatsApp, the most popular social media among undergraduate students according to Ahad and Lim (2014), could positively influences students' ability to speak daily topics and connect with peers online anytime, anywhere, and to anyone. Minalla (2018) states that WhatsApp, especially WhatsApp groups, can reinforce EFL learners' verbal interactions beyond the classroom context, which means that learners can be independent in learning with the materials. Vygotsky's Constructivist Learning Theory (1978) suits the use of WhatsApp. This theory aims to develop the students' social interaction as well as to raise and share information.

Need Analysis

Brown (1995) identifies the term 'needs analysis' (also called 'needs assessment') in an educational context in terms of the activities involved in gathering information that will

serve as the basis for developing a curriculum which meets the learning needs of a particular group of students. Piskurich (2015, p. 90-92) proposes that there are two types of needs analysis especially in relation to instructional material development namely audience analysis and learning analysis.

Audience analysis (which in this research is called ‘student needs analysis’) is done prior to learning and product analysis in designing a program. According to Piskurich (2015) audience analysis aspects include age, gender, educational experience, interests, prerequisite knowledge and skills, and many other characteristics that can help the designer to properly evaluate both the learner and the program (p.92).

In addition, Piskurich (2015, p.90) proposes that learning analysis is done through three processes: (1) working with the manager (which in this research is working with the lecturers to define what required, (2) gathering data concerned with the program of developing the instructional material, and (3) analyzing the possible learning to decide which of them the program must cover. The topic, learning objectives, task, content, procedures, and additional information to support the content are considered in doing the learning analysis.

Table 1

Aid proposed by Piskurich (2015, pp. 103-104)

Type	Purpose	Sequence	Best Method	Product
Audience Analysis/students need analysis	To determine the characteristics of the target learners that will be critical for program development	Might be done anytime during the design process, but always before developing program material	Questionnaire and interviews with learners and others who know the students’ characteristics	A list of general characteristics that the designer needs to consider when creating course material
Learning Analysis/learning needs analysis	To discover the learning needs of the organization, a work group or individual contributors To determine the critical learning necessary to meet a training need	This is done in the beginning before designing the program or Done in lieu of job analysis	Interview or focus group	A list of training needs for the targeted level of the analysis and a determination of which of those needs might be addressed. A prioritized list of the critical learning that

Type	Purpose	Sequence	Best Method	Product
				must be mastered to meet the needs.

In the analysis phase, educators verify the needs of the students in order to determine the educational objectives and what needs to be taught to achieve the educational goals. In this study, two kinds of analyses consisting of audience analysis and learning analysis proposed by Piskurich (2015) were used to identify common characteristics of the students and the critical learning needs to inform the development of a set of WhatsApp-based speaking instructional materials.

Research Methods

Research Design

In conducting a needs analysis as the first step to develop the WABSIM, researchers adopted an ‘ADDIE’ approach as a research and development (R&D) model. ADDIE stands for Analyze, Design, Develop, Implement, and Evaluate. The ADDIE model is an iterative instructional design process, where the results of the formative evaluation of each phase may lead the instructional designer back to the previous phase. The end product of one phase is the starting product of the next phase.

This paper is focused on the ‘Analyze’ phase as the fundamental point before designing, developing, implementing, and evaluating the intended teaching and learning module used for EFL teaching in an Indonesian university.

Participants

Sixty eight students who agreed to participate as respondents in this research were from the third and the fifth semester students of the English Education Department of Muhammadiyah University of Kendari in the academic year 2018-2019. These respondents have had experienced about the teaching and learning of the Basic Speaking course previously in the second semester. They have had the perspectives about the lesson was.

Research Instrument

An online questionnaire used in this study was in the form of a Google Form. To gain data about students’ needs for developing the WABSIM for Basic Speaking subject; researchers modified a questionnaire from Munby’s (1978), Thronburry (2005), Piskurich

(2015). The questionnaires were posted and filled out online through the Google Form. The form is captured in Figure 1.

Pertanyaan Respons 68

STUDENTS' NEED QUESTIONNAIRE

This questionnaire is to know your needs regarding with the existing speaking learning condition in order to develop Whatsapp-based speaking instructional materials in the form of a speaking module for the Basic Speaking subject of English Education Study Program at Muhammadiyah University of Kendari. Your responses will be very helpful in developing the module mentioned which is to fulfill your needs in applying the daily conversation fluently, accurately, and comprehensibly using Whatsapp. Confidentiality of your identity and answers is guaranteed. Thank you for your cooperation.

Fig. 1 Students' Need Questionnaire

Data Collection

The questionnaire for the student needs analysis and the learning needs analysis was distributed and responded using a Google form, with a link to access the form shared through the WhatsApp group. Responses from students about their learning needs were in the form of Likert Scale. Students' demographics analysis cover the information about age, gender, speaking background experiences using WhatsApp on campus and outside of campus. In addition, students' learning needs analysis include target needs: speaking model, speaking situation, speaking component, speaking content, speaking context, speaking activities, speaking topics, as well as speaking material adaptation and readiness to study Basic Speaking unit lesson via WhatsApp-based instruction.

Data Analysis

The data were collected through a survey instrument composed of Likert Scale and other items, hosted on Google Forms. These data are represented in Tables 1-8 as both tallies of participants selecting a particular response and as percentages, and were interpreted qualitatively to inform the development of the proposed WABSIM for Basic Speaking.

Findings and Discussion

The students' needs analysis was the first step of the Research and Development model (R&D). Students' need analysis is crucial as the feasibility of a product should also be measured by the demands and needs of the users. In measuring the needs of the students, the researcher tried to find out the present condition of the students' capabilities in learning English, especially speaking and also their expectation. It includes their objectives in learning English, how they think English material should be delivered in terms of language orientation, the endorsement of the four language skills within the course, the learning topics, and their learning preferences. By the needs analysis, a researcher can design any materials which meet the learning needs. A needs analysis step was suggested by some researchers and experts on material development (Richards, 2001; Nation, 2010). They argued that it is imperative for conducting needs analysis before designing any materials, whether for English for Occupational Purposes (EOP), English for Academic Purposes (EAP), and General English (GE).

Students' Demographics Analysis

Based on Table 3.1, it shows that 17.6% of students aged 18, 41.2% of students aged 19, 33.8% of students were aged 20, 4.4% of students were aged 22, and 2.6% were 21. Also, it shows that female students were the most dominant in this study, i.e., 83.8% and male students were only 16.2%. This is the phenomenon at this moment that female students who are enrolling in studying English at the English Education Department at the Muhammadiyah University of Kendari are the majority representative participants. They aged from eighteen to twenty-two. The majority of female students as the participant who took the role in this study did not guarantee that female students were not more superior to male like gender differences in language production (Maulina, 2018).

Table 1

Participant Demographics

No	Information	Answer	Frequency	Percentage
1	Age	18	12	17.6
		19	28	41.2
		20	23	33.8
		21	2	2.9
		22	3	4.4
2	Gender	Male	11	16.2

No	Information	Answer	Frequency	Percentage
		Female	57	83.8

Today's students are familiar enough with the social media called WhatsApp. The students in this study brought their smartphone to college every day to stay connected with friends, lecturers, and family members. Students in this study were very familiar with smartphones and had installed WhatsApp and used it daily already on campus and outside of campus, as seen in Table 2 as a part of this analysis.

Table 2

WhatsApp Use in Campus and Outside of Campus

No	Information	Answer	Frequency	Percentage
1	How often do you speak English on campus via WhatsApp?	Always	1	1.5
		Usually	17	25
		Sometimes	42	61.8
		Seldom	7	10.3
		Never	1	1.5
2	How often do you speak English outside of the campus via WhatsApp?	Always	0	0
		Usually	12	17.6
		Sometimes	43	63.2
		Seldom	12	17.6
		Never	1	1.5

Table 2 shows the students' speaking experiences in the aspect of using English via WhatsApp at college and outside of the college. 60% of students liked to communicate via WhatsApp, both on campus and outside of campus. The remaining 25% of students frequently used English when they were at the campus. Also, 17.6% of students tended to communicate orally through WhatsApp when they were outside of campus, for example, at home. It indicates that students in this research have been familiar with the friendly-user, cheap, and fast access to WhatsApp. The popularity of group communication in WhatsApp encourages students to work on the tasks assigned, particularly for daily conversation collaboratively and communicatively in a fast connection. This study is in line with the findings by Awada (2016), Mackey (2016), Yafuz (2016), Afful and Akrong (2019), and Madge et al. (2019). Students' familiarity in this mobile platforms enable them stay connected with friends, lecturers, and

family members as well as make them studying both in an asynchronous and synchronous pace and time.

Students' Learning Needs Analysis

There were nine aspects to know students' want, need, requirement, or necessity of the WABSIM. The aspects were speaking models, speaking situations, speaking styles, speaking components, speaking contents, speaking contexts, speaking topics, speaking activities, and speaking material adaptation in the form of WAB instruction discussed as follows.

Speaking Model

WAB speaking models are designed based on the students' wants. Face to face communication and distance communication through social media like WhatsApp, in and outside the classroom, guide students to get varieties of the speaking situation and get more speaking engagement that they can reduce anxiety to talk in English. WhatsApp speaking models that students preferred to apply in the Basic Speaking course is described in Table 3.

Table 3

WhatsApp Learning Model Needed

No	Information	Answer	F	%
1	WhatsApp Speaking model	WhatsApp audio call	11	16.2
		WhatsApp video call	3	4.4
		Both WhatsApp audio and video call	6	8.8
		WhatsApp audio recording	35	51.5
		WhatsApp video recording	13	19.1
		Both WhatsApp audio and video recording	19	27.9
		WhatsApp written chats individually	1	1.5
		WhatsApp written chats in groups	1	1.5

Note: students could choose more than one responses for this part

Table 3 shows that the speaking models that students would like to apply when speaking English via WhatsApp. Students were allowed to prefer more than one option in choosing their preferences. 51.5% of students preferred to speak English through WhatsApp audio recording (WAAR). Then, 19.1% of students wanted to speak English via WhatsApp video recording (WAVR), and 27.9% of them liked to talk in the WhatsApp using both audio and video recording. The lowest percentages showed for WhatsApp audio and video calling WAAC and

WAVC), i.e., 8.8%. The speaking materials which need to be developed must meet the students' learning needs by providing audio and video recording materials as examples for them to do speaking instructions during and after the lesson tasks and to imitate the model speaking naturally.

Speaking Situation

The information in Table 4 shows that most of the students (70.1%) supported using both formal and informal speaking situations in the speaking instructional materials developed for the next phase. 50% of students demanded to speak in two ways, namely, both with one person and in a group. The remaining 20.6% of students individually preferred only speaking with one person via WhatsApp, and 29.4% preferred in groups.

Table 4

Speaking Situation

No	Information	Answer	Frequency	%
1	English speaking skill needed	Formal	8	11.9
		Informal	12	17.9
		Both formal and informal	47	70.1
2	Speaking share model 1	With one person	20	29.4
		In groups	14	20.6
		Both with one person and in groups	34	50
3	Speaking share model 2	With the same person all the time	15	22.1
		With different people all the time	13	19.1
		Both with the same person and with different people	40	58.8

WhatsApp as a social medium enables students to collaborate, communicate, and connect with one person at the same time or at the particular times, and also with a group of people in the form of a group WhatsApp. Both formal and informal learning materials will be provided in balance when the materials are in the design and development phase. Such speaking models are designed to allow learners to be able to use various types of reasoning as appropriate to the situation in their speaking exercises and solve different kinds of daily topics in innovative ways. Speaking situations can be explicitly designed by mixing formal and informal situations

for students to be able to lead students to prepare themselves easy in self-adapting the communication situation.

Speaking Styles

There are four kinds of students in learning speaking. Some students like to study speaking visually. They liked to see images, videos, audios, illustrations provided in the material. Besides, some students liked both audio and visual items during the learning, and some like to act out. Further, the rest accept all kinds of speaking learning styles. In this research, the percentages of students speaking learning styles are provided in Table 5 as follows.

Table 5

Speaking Styles

No	Information	Frequency	%
1	Audio	20	29.9
2	Visual	9	13.4
3	Audiovisual	18	26.9
4	Kinesthetic	1	1.5
5	All four styles	19	28.4

Having the result of seeing students' speaking learning styles, the researcher assumed that in learning Basic Speaking, students needed WAB speaking material in the form of audio (29.9%) and audiovisual (26.9%). Also, they needed a kind of visual material (13.4%) in the module that was going to develop. It was quite a minor kind of student who liked to act out speaking learning (1.5%). However, some students liked to put all the learning styles together when learning Basic Speaking (28.4%). Further, students need speaking materials that enable them to produce communicatively and collaboratively actively. Those kinds of speaking learning styles are essential to consider in developing the WABSIM for Basic Speaking subject. Students' speaking learning styles are considered for designing WABSIM that the materials can cover and meet students' learning preferences. Vocabulary lists, reading texts, Audio, videos, and other illustrations need to be provided.

Speaking learning materials bring those students in heterogonous styles effectively comprehend the learning. Original and authentic speaking materials are helpful and will familiarize students with the natural way of learning speaking, talking about daily conversation.

Speaking activities are designed to motivate students with different learning styles to manage and demonstrate the inside and outside WAB speaking tasks effectively. The design of the speaking tasks ensures each student participates actively and cooperates effectively with teams. Individual accountability and commitment play an essential role in handling various English tasks (Albino, 2017; Astuti & Lammers, 2017). They further disclose that when students were believed to handle more than one English task, they produced spoken English more and got comprehensible inputs. The findings from this study affirm that the students' learning styles are identified as communicative and concrete learners (Willing, 1988) because the students' learning styles are fit in type to the characteristics of the four learning styles.

Speaking Component

There are six speaking components (Brown, 2004): pronunciation, grammar, vocabulary, fluency, comprehension, and task.

Table 6

Speaking Component

No	Information	Answer	Frequency	Percentage
1	Speaking components to be improved	Pronunciation	28	41.2
		Grammar	26	38.2
		Vocabulary	31	45.6
		Fluency	14	20.6
		Comprehension	9	13.2
		Task	11	16.2
		All components	32	47.1

**Note: students could choose more than one responses for this question*

Table 6 is about speaking components that the students would like to improve in learning Basic Speaking via WhatsApp-Based Instruction. There were six speaking components to be improved during their learning Basic Speaking using WhatsApp as the medium to help them associate their vocal performances daily on campus and outside of the campus. Firstly, 45.6% of students agreed that they desired to improve their vocabulary. It followed by pronunciation with 41.2% agreed in this component. Then, they also agreed to enhance their grammar with 38.2%. Further, fluency (20.6%), task (16.2%), and comprehension (13.2%). 47.1% of students agreed that it was important to improve the six components. Therefore, speaking components that most prioritized in the development phase were vocabulary, pronunciation, grammar, fluency, task, and comprehension aspects. Brown

(2004) argue that including these six elements in the speaking curriculum and their mastery by students becomes the key for both educators and students to effectively use in communication.

Speaking Content, Context, and Activities

Table 7 shows the content of WhatsApp-based speaking instructions that must be involved in the next stage, namely designing and developing the speaking instructional materials. Half of the students (52.9%) who responded this questionnaire agreed that both written and audio/video dialogue of daily conversation topics with an easy grammar and vocabulary content must be provided in the learning materials. 25% of students agreed with written dialogue, and 22.1% agreed with the audio and video speaking materials. Furthermore, it shows that 57.4% of students agreed with the context of overseas speaking learning topics, and 42.6% agreed with domestic topics. In addition, it shows that students liked to do speaking activities when studying daily conversation topics for Basic Speaking subject via WhatsApp-based instructions in the form of groups (57.4%), in pairs (45.6%), role plays (30.9%), and small interviews (23.55), 17.6% of students wanted to apply the five activities integrated during their learning. The least preference appeared with the demonstration activity, namely 2.9%.

Table 7

Speaking content, context, and activity

No	Information	Answer	Frequency	Percentage
1	Speaking instruction content	Written dialogue of daily conversation topics with an easy grammar and vocabulary content	15	22.1
		Audio/video dialogue of daily conversation topics with an easy grammar and vocabulary content	17	25
		Both written and audio/video dialogue of daily conversation topics with an easy grammar and vocabulary content	36	52.9
2	Speaking context	Domestic	29	42.6
		Overseas	39	57.4

No	Information	Answer	Frequency	Percentage
3	Speaking activities	Dialogue in pairs	32	45.6
		Dialogue in groups	39	57.4
		Role plays	21	30.9
		Interviews	16	23.5
		Demonstrations	2	2.9
		All five activities integrated	12	17.6

Note: students could choose more than one responses for question 4

First of all, Contents are in line with the relevant technologies utilizing WhatsApp and additional listening resources from videos in the learning process. Those technologies have been a great inspiration for students and have made them want to learn more about learning materials (Bahadorfar & Omidvar, 2014). These technological tools are much more exciting and provide fun and enjoyable learning, thus, motivating them and helping them to enhance their language learning fruitfully. Moreover, these tools help students learn at their own pace and promote autonomy in them. Contents of the Basic Speaking is by providing both audio and video recording materials as the examples for them to do speaking instructions during and after the lesson tasks as well as to imitate the model speaking naturally.

Secondly, domestic and international contexts of materials enable students to enrich their insights as well as put students to culturally aware of both the context. Both daily domestic issues and international issues would like to be selected carefully in order that students can show their confidence when doing speaking activities. The material presented will be covering two settings, domestically and internationally, in the form of illustrations, figures, photos, videos, and more. In the WAB Basic Speaking materials, the researcher presented a learning context in a familiar situation, both domestic and international issues that suits students' needs.

In this research, students' wants that both local and international context must be explicitly written in the WAB speaking instructional material. It is how including the communicative and collaborative speaking activities that students could think to learn both cultural values in talking about daily topics. The communicative and collaborative contexts work to effectively manage students to be aware of the technology used to think in solving several speaking problems and understand how to work effectively in preparation for their advanced speaking level and future career. Students' wants were supported by the interview results from the speaking lecturers, which highlighted that the material of Basic Speaking course must be explicitly written about the 21st-century skills demand in both contexts, local and international. It is in line with Tomlinson (2011) who stated that the content of the

instructional material developed should be contextualized to reverse the local and global world where the teachers and students live in. The mixing context of speaking material designed to support learners to be able to interact effectively with others (i.e., know when it is appropriate to listen and when to speak, respond open-mindedly to different ideas, and leverage social and cultural differences to create new ideas in speaking exercises and tasks). The exercises related to cross-cultural materials help prepare students to understand and develop skills and abilities in cultural diversity, intercultural communication, empathy, aptitudes for working collaboratively and networking across cultures and interacting with people from different social and cultural backgrounds (Sun, 2015).

Furthermore, It is crucial to prioritize the most until the least speaking activities that must be in the learning material. Therefore, the researcher would like to create materials with lots of group and pair activities followed by small interview activities and role-plays. These four speaking activities will in the materials developed. Also, these speaking activities enable students to practice speaking skills in and after the classroom using WhatsApp by speaking models they need as assigned.

Speaking activities are designed to enable students to work together to share their thoughts, questions, ideas, and solutions in several speaking tasks and exercises. A collaborative learning activity provided through the WAB speaking instructional material helps the students to develop and achieve their communication skills. Learning together allows the students to overcome their speaking anxiety and nervousness, to develop social skills and critical thinking skills, to promote mutual interaction, and to help prepare students for the challenges in the coming era such today has been started very challenging for all students around the globe with the corona virus disease (COVID-19) outbreaks. Students would get used to communicating in English in both situations face to face and online confidently for their future life, where collaborative and communication skills are highly required in many careers (Aliyu, 2017; Trilling & Fadel, 2009, p. 54).

Speaking Topics

Table 8 shows 8 (eight) topics out of 15 (fifteen) that must be covered in the WhatsApp-based speaking instructional materials for the Basic Speaking subject, based on the highest to lowest percentages chosen by students. The speaking topics are daily activities (74.6%), free time activities (64.2), holidays (62.7%), food and drink (55.2%), places (52.2%), family (49.35), people (47.8%), and books (38.8%). Eight (8) topics were included in the material

development, four (4) topics for mid-term part and other four (4) topics for final-term. They were ranked from the highest percentage chosen to the lowest.

Table 8

Speaking topic

No	Information	Answer	Frequency	Percentage
1	Speaking topic	Animal	21	31.3
		Books	26	38.8
		Clothes	16	23.9
		Daily activities	50	74.6
		Free time activities	43	64.2
		Family	33	49.3
		Food and drink	37	55.2
		Holidays	42	62.7
		Jobs	28	41.8
		Movies	27	40.3
		Places	35	52.2
		People	32	47.8
		Shopping	15	22.4
		Time	18	26.9
		Weather	16	23.9

Note: students could choose more than one respons for the topics they like most to study

Daily topics for Basic Speaking subject are designed from the most preferred topics that students want to the least topics chosen. Familiar daily topics enable students to talk actively and can easily transfer their previous knowledge comprehensively and communicatively. Daily topics are required by students, particularly university students, in their academic lives and everyday tasks (Nizam, Musa, & Wahi, 2010). The decision about sequencing the course contents in terms of the Basic Speaking topics is taken based on ‘need’ criteria because the topics are arranged in order of importance to the students’ needs in personal and social lives (Richards, 2001). Besides, the topics for the WABSIM need to be sequenced in order to get logical relationships from one to the other topics according to a theme or storyline (stated by a lecturer in the interview). The logical sequence of the topics was then linked to the grammar rules to be taught and practiced altogether in classroom interactions.

Material Adaptation and Readiness to Utilize WhatsApp

Table 9 shows that students (73.5%) agreed with both materials made by the lecturer herself and materials adapted from the existing books or from up-to-date websites. In addition, they agreed with the plan for developing speaking instructional resources in WhatsApp-based

form. The integration of WhatsApp in teaching speech for conversation supports the learning and teaching in the classroom and beyond the classroom. Yafuz (2017) claim that WhatsApp messenger improve the homogeneity of students' success in EFL learning. In addition, WhatsApp isequipped with a conversation platform that allows the development of relationships (Solomon and Schrum, 2017).

Table 9

Material adaptation and readiness to utilize WhatsApp

No	Information	Answer	Frequency	Percentage
1	WhatsApp-based speaking material for collaboration, communication and connection	Agree	63	92.6
		Disagree	5	7.4
2	Existing speaking material	Made by the lecturer	26	38.2
		Adapted from the existing books or materials from websites	42	61.8
3	Speaking materials are needed	Materials made by the lecturer	8	11.8
		Materials adapted from existing books or websites	10	14.7
		Both materials made by the lecturer and materials adapted from existing books or websites	50	73.5

Researchers would consider more by linking all items analyzed in this analysis phase. Besides, they agreed with the plan for developing speaking instructional resources in WAB instructions form. The integration of WhatsApp in teaching speaking for daily conversation supports the teaching and learning inside and outside the classroom.

WhatsApp, as the platform for communication, has facilities that provide features to address students' needs. The features such as recordings and callings in the form of audio and video would help engage students to speak more, and this could improve students' interpersonal communication with the easy features available (Boczek and Koppers, 2020).

WhatsApp as a social medium enables students to collaborate, communicate, and connect with one person at the same time or at the particular times, and also with a group of people in the form of a group WhatsApp. Both formal and informal learning materials will be provided in balance when the materials are in the design and development phase.

Conclusion

Data resulting from the needs analysis questionnaire informed the researchers of key issues to be considered in constructing WABSIM for implementation and evaluation in the next phase of this project. Students' preferences and learning goals can be integrated with perspectives from the mobile learning literature and the affordances of WhatsApp to facilitate communication, collaboration and interaction in ways that have the potential to accelerate English language learning on the part of university students. There would be value in conducting similar needs analyses for other mobile learning instructional material development processes internationally, both for comparison with the Indonesian results here and in order to inform those development processes.

Acknowledgement

This study is funded by Indonesian endowment fund for education of educational fund management institution (LPDP) in 2020.

References

- Afful, B., & Akrong, R. (2019). WhatsApp and academic performance among undergraduate students in Ghana: Evidence from the University of Cape Coast. *Journal of Education for Business*, DOI: 10.1080/08832323.2019.1644276
- Ahad, A., & Lim, A. (2014). Convenience or nuisance?: The 'WhatsApp' dilemma. *Procedia - Social and Behavioral Sciences* 155, 189 – 196
- Albino, G. (2017). Improving speaking fluency in a task-based language teaching approach: The case of EFL learners at PUNIV-Cazenga. *SAGE Open*, 7(2), 1–11. <https://doi.org/10.1177/2158244017691077>
- Aliyu, M. M. (2017). Developing oral communication skills through collaborative learning: Implications for Nigerian teachers. *International Journal of English Literature and Social Sciences*, 2(5), 127–130. <https://doi.org/10.24001/ijels.2.5.15>
- Arif, A. (2019). Development of Mobile Learning Framework for ESAP for Technical and Engineering Context. *Asian EFL Journal*, 23 (6.3). Retrieved from <https://www.elejournals.com/asian-efl-journal/volume-23-issue-6-3/>
- Astuti, P., & Lammers, J. C. (2017). Individual accountability in cooperative learning: More opportunities to produce spoken English. *Indonesian Journal of Applied Linguistics*, 7(1), 215–229. <https://doi.org/10.17509/ijal.v7i1.6878>
- Awada, G. (2016). Effect on Whatsapp on critique writing proficiency and perceptions toward learning. *Cogent Education*, 3:1264173, 1-25. <http://dx.doi.org/10.1080/2331186X.2016.1264173>.
- Boczek, K., & Koppers, L. (2020). What's New about Whatsapp for News? A Mixed-Method Study on News Outlets' Strategies for Using WhatsApp. *Digital Journalism*, 8:1, 126-144, DOI: 10.1080/21670811.2019.1692685
- Bahadorfar, M., & Omidvar, R. (2014). Technology in teaching speaking skill. *Acme International Journal of Multidisciplinary Research*, 2(4), 9–13.
- Brown, J. D. (1995). The elements of language curriculum: A systematic approach to program development. Boston: Heinle and Heinle Publisher.
- Brown, H. Douglas. (2004). *Teaching by Principles an Interactive Approach to Language Pedagogy*. Longman
- Karademir, T, Alper, A, Soğuksu, A. F & Karababa Z.C. (2019) The development and evaluation of self-directed digital learning material development platform for foreign

- Kietzmann, J. H., Hermkens, K., McCarthy, I. P., & Silvestre, B. S. (2011). Social media? Get serious! Understanding the functional building blocks of social media. *Business horizons*, 54(3), 241-251. DOI: 10.12691/education-3-10-20
- Kukulska-Hulme, A., Norris, L., and Donohue, J. (2015). Mobile pedagogy for English language teaching: a guide for teachers. British council 2015, London. Retrieved from http://englishagenda.britishcouncil.org/sites/ec/files/E485%20Mobile%20pedagogy%20for%20ELT_FINAL_v2.pdf
- Mackey, A. (2016). Sticky e/motional connections: young people, social media, and the re-orientation of affect. *Safundi*, 17:2, 156-173, DOI: 10.1080/17533171.2016.1176398
- Madge, C., Breines, M.R., Dalu, M.T.B., Gunter, A., Mittelmeier, J., Prinsloo, P., & Raghuram, P. (2019). *WhatsApp* use among African international distance education (IDE) students: transferring, translating and transforming educational experiences, *Learning, Media and Technology*, 44:3, 267- 82, DOI: 10.1080/17439884.2019.1628048
- Maulina, M. (2018). Gender differences in language development, acquisition, comprehension, and production. Proceeding of the 65th TEFLIN International Conference, Universitas Negeri Makassar, Indonesia 12-14 July 2018, Vol. 65. No. 1. 180-184.
- Maulina, Noni, N., & Basri, M. (2019). WhatsApp Audio and Video Chat-Based in Stimulating Students' Self-Confidence and Motivation to Speak English. *Asian EFL Journal*, 23 (6.3). Retrieved from <https://www.elejournals.com/asian-efl-journal/volume-23-issue-6-3/>
- Maming, K., Saleh, N.J., & Yassi, A.H. (2020). A Preliminary Study on Teacher's Voices: Their Problems in ELT and Content-Based Instruction (CBI). *The Journal of Asia TEFL*, 17(2), 707-714.
- Minalla, A.A. (2018). The effect of WhatsApp chat group in enhancing EFL learners' verbal interaction outside classroom context. *English Language Teaching*, 11(3), 1-7. URL: <http://doi.org/10.5539/elt.v11n3p1>
- Munir. (2017). *Pembelajaran Digital*. Bandung: Alfabeta.
- Nation, I. S. P. and Macalister, J. (2010). *Language curriculum design*. New York: Routledge
- Nizam, A. S., Musa, N. C., & Wahi, W. (2010). Information literacy abilities in ESL classrooms. *Asean Journal of Teaching and Learning in Higher Education*, 2(2), 52–65.

- Pavlik & MacIntoch, John and Shawn. (2015). *Converging Media 4th Edition*. New York, NY: Oxford University Press. p. 189. ISBN 978-0-19-934230-3.
- Piskurich, G.M. (2015). *Rapid Instructional Design, Learning ID Fast and Right (Third Edition)*. New Jersey: John Wiley & Sons, Inc.
- Popescu, A. (2011). Assessment of mobile learning contribution and practices in a lifelong learning society. *International Journal of Arts & Sciences*, 4(8), 81-92. Retrieved from <https://search.proquest.com/docview/908315097?accountid=62694>
- Richards, J. C. (2001). *Curriculum Development in Language Teaching*. Cambridge: Cambridge University Press.
- Sakkir, G. (2016). Interest and Writing Skill of the University Students on Using Social Media-Facebook in Writing Class (STKIP MuhammadiyahRappang, Indonesia). *Asian EFL Journal (Second Language Acquisition-Academic Research) TESOL Indonesia International Conference Edition* (Vol. 2, pp. 178-188).
- Solomon, G., & Schrum, L. (2007). Web 2.0: New tools, new schools. Eugene, OR: International Society for Technology in Education, 9(2).
- Speroff, Y. (2016). Using whatsapp for speaking and listening practice [Blog Post]. Retrieved from yuliyasperoffblog.wordpress.com.
- Sun, C. (2015). The cultivation of cross-cultural communication competence in oral English teaching practice. *English Language Teaching*, 8(12), 7–10. <https://doi.org/10.5539/elt.v8n12p7>
- Thornbury, S. (2005). *How to teach speaking*. Harlow, England: Longman.
- Tomlinson, B. (2011). *Material Development in Language Teaching* (2nd Ed.). Cambridge: Cambridge University Press.
- Trilling, B., & Fadel, C. (2009). *21st -century skills: Learning for life in our times*. San Francisco: Jossey-Bass.
- Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Cambridge, MA: Harvard University Press.
- Willing, K. (1988). *Learning Styles in Adult Migrant Education*. Australia: NCRC Research Series
- Yavuz, F. (2016). Do Smartphones Spur or Deter Learning: A WhatsApp Case Study. *International Journal of Educational Sciences*, 15:3, 408-415, DOI: 10.1080/09751122.2016.11890551