# Watch and Practice: Effectiveness of Using WhatsApp as a Multimedia Tool in Boosting Speaking Competence during the COVID-19 Pandemic in Indonesia

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***Abstract*—With their audio-visual capacity, linguistic and non-linguistic content, WhatsApp group video calls appear to have great potential for encouraging EFL learners' speaking development. However, the literature has yet to establish the degree to which WhatsApp group video calls promote English learning motivation and self-efficacy, reduce English speaking anxiety, authentic self-assessment, or urge teachers and students to improve their digital literacy. Therefore, this study aims to analyze the effect of using WhatsApp group video calls to improve students' speaking skills and reveal the extent of this media's impact on student learning. The pre-/post-test, the two-group quantitative explanatory research design was undertaken, featuring one hundred and nineteen students from four classes. A test and questionnaires were used for data collection, and then data were analyzed by using SPSS 24.0. The findings reveal that WhatsApp group video calls have been helpful for increasing learners' speaking competence during the COVID-19 pandemic and promoting students' English speaking motivation. With all these advantages in mind, this study suggests that ESL/EFL speaking instructors use WhatsApp group video calls in their distance or online English speaking classes.**

***Index Terms*—Audio-visual, COVID-19, speaking competence, teaching, WhatsApp, video calls.**

## I. Introduction

English speaking skills have been generally recognized as an ideal option for EFL students, with excellent English speaking competence enabling learners to be actively involved in various fields, such as health, business, advertising, tourism, politic, education, and many more. EFL learners are expected to display linguistic and non-linguistic competence so that the communication runs well in real interaction settings. As a logical consequence, speaking instructors are encouraged to provide suitable English speaking materials and media, apply appropriate teaching methods, and assess speaking effectively so that learners can achieve their optimal potential for speaking [1], [2].

The prime expectation of teaching speaking is that learners develop to communicate in English effectively and cope with speaking problems they encount er. Instructors must draw on all their potential to help learners achieve their goals. The COVID-19 pandemic has presented positive and negative impacts in all sectors of life, challenging people's plans, ambitions, and, more particularly, health and finances. The impact of the pandemic on the education sector has forced a shift of policy from classroom-centered (face-to-face setting) to Google-centred (online learning) [3], [4]. The Indonesian government has legalized online learning, implementing a policy from 15th March 2020 for an undetermined term. This policy has brought a challenge for online learning adoption by students in remote areas, such as Flores Island (the eastern part of Indonesia), where internet access is unstable, with learners forced to look for particular places to find an internet signal. Before COVID-19, there were no online learning policies covering all levels of education in Indonesia.

On the positive side, the pandemic has stimulated learning, creativity, and innovation. EFL teachers have been encouraged to provide appropriate media during the pandemic, with researchers viewing WhatsApp as a seemingly helpful technology for speaking classes. Using WhatsApp has made EFL learners aware of non-speaking aspects, like English-speaking motivation, autonomous learning, self-efficacy, and reducing anxiety [5], [6]. WhatsApp group video calls offer unlimited contributions to EFL teachers and learners. This media can be viewed as a space for mutual reflection on the shortcomings of learners' English communicative competence demands [7], [8]. Video-based learning on WhatsApp empowers learners to improve their speaking skills, such as fluency, ideas development, pronunciation accuracy, vocabulary development, and emotional learning factors, such as self-efficacy and English speaking anxiety [9]-[11].

In the current pandemic situation in Indonesia, it seems that education through online videos shared on WhatsApp could be one of the effective uses of multimedia. WhatsApp is a free messenger application that works across multiple platforms and is widely used by students to send multimedia messages like photos, video presentations, audio, and simple text messages. WhatsApp is an attractive media, easy to use, enables authentic assessment, and provides adequate time and space [12]. It enables continuous English speaking classes, making lessons more interactive and exciting, stimulating learners' digital literacy, developing their fluency, coherence in presenting ideas, vocabulary choice, grammatical accuracy, and listening comprehension, and promoting independent speaking practice [13], [14]. Thus, WhatsApp as multimedia facilitates EFL learners by offering an optimal learning mode, promoting the spirit of initiative and creativity, enabling students' self-assessment through authentic speech and feedback, and increasing student motivation and self-efficacy, which leads them to become autonomous learners who can explore their potential [6], [15].

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WhatsApp has incredible power in engaging the learners' speaking achievement. It is more effective and efficient in budgeting, time, and learning space. Thus, using WhatsApp promotes digital literacy for teachers and learners and improves learner motivation and self-efficacy. Furthermore, this multimedia can help build a good rapport between learners and instructors and shape students' thinking skills and personal initiative towards digital literacy [16].

There have been previous studies that have provided evidence of WhatsApp group video calls improving English-speaking competence, vocabulary, grammatical accuracy, and listening ability, as well as encouraging students learning motivation and improving self-efficacy and self-assessment in speaking English [13], [17], [18]. WhatsApp group video calls are seen as excellent multimedia for students to enhance their speaking competence, provide authentic ability, become independent English learners, stimulate creative thinking, and reduce their anxiety about speaking English [19]. Online video-based learning on WhatsApp is considered an essential tool for acquiring languages. Students can be aware of errors and mistakes in terms of facial expressions and body language, stimulate critical reflections, and activate their motivation and self-efficacy [20], [21].

It is well known that using WhatsApp group video calls during the COVID-19 era in Indonesia could increase speaking abilities and positively affect university students' affective factors; this is not a new or novel observation. The current study also finds the same conclusion. However, the most distinctive and exciting aspect of this study's data findings is the awareness of ICT literacy in accessing and utilizing various features of the WhatsApp application and the respondents' struggle to reside in an area with a stable internet network. Thus, the results of this research will inspire policymakers (The government of Indonesia) to establish ICT infrastructure consistently and equally throughout the Republic of Indonesia's territory so that scientific arguments about mandatory online learning policies during the COVID-19 or post-COVID-19 period could run successfully. As such, the present work attempts to fill a gap in the literature by exploring the effectiveness of this tool in promoting students' speaking competence and affective factors in the context of the pandemic in Indonesia.

Additional research is required to update and extend prior findings. This study investigates the effect of WhatsApp group video calls on Speaking English. To this end, the following questions were investigated:

1) Do WhatsApp group video calls affect students' speaking competence within the context of the COVID-19 pandemic policy in Indonesia?
2) Does using WhatsApp group video calls affect students' affective factors in learning within the context of the COVID-19 pandemic policy in Indonesia?

## II. Literature Review

### A. WhatsApp in Speaking Classes

Multimedia plays an essential role in supporting students' speaking achievement. English speaking-instructors are expected to choose appropriate media for students to develop their English-speaking skills. Various media tools are employed to help students understand languages in teaching-learning. WhatsApp is the only form of multimedia considered appropriate for use in a speaking class in this investigation. WhatsApp used in language education and learning aims to help students develop their language skills and learning enthusiasm.

In the context of English-speaking competence during the COVID-19 pandemic, WhatsApp is highly recommended for teaching speaking. Speaking lecturers can apply WhatsApp group video calls by following the stages of its application carefully and precisely in the classroom. WhatsApp is a popular instant messaging application for various devices and gadgets worldwide. Created by Jan Koum and Brian Acton in 2009, WhatsApp has 1.5 billion active users in 180 countries [22]. WhatsApp is marketable due to its flexibility, user-friendliness, practicality, and valuable features. WhatsApp allows many communication modes, such as voice notes, video calls, audio calls, audio-visual calls, share/link location, document sharing (pdf, Microsoft Office files, and many more), and pictures. Moreover, this media supports up to eight speakers in an online speaking class, cross-platform engagements, functions with different devices (personal digital assistants, smartphones, tablets), and many more [18].

The WhatsApp group video call is ideal for enhancing EFL learners' verbal interaction outside the classroom or in virtual learning contexts. This media is an excellent medium for the teachers to assess EFL learners' speaking performance and is very flexible in terms of time and place [23]. WhatsApp substantially affects English language teaching, particularly speaking skills; students can reflect on their presentation/performance [6]. Furthermore, [6] further affirm that WhatsApp is a suitable multimedia form to stimulate the learners' psychology, such as EFL learners having positive feelings for English language learning, and that it improves learners' creativity, autonomy, and responsibility for learning, encouraging a good rapport between learners and teachers. Teachers have a private space to better assess students' presentation/performance in the speaking process.

### B. Affective Factors for Students Using WhatsApp Group Video Calls

WhatsApp group video calls empower EFL learners' speaking competence within the context of the online learning policy in Indonesia, stimulating learners' affective factors, such as English speaking motivation, autonomous learning, self-efficacy, and reducing their speaking anxiety, with those factors playing a vital role in the achievement of learners' speaking competence [24]. Motivation is an inner source, preference, desire, emotion, reason, need, impulse, or purpose that moves a person to a particular action [24]. [24] further affirms that motivation is critical in promoting learners’ speaking competence. Therefore, motivation is a primary variable to be considered by speaking instructors in recognizing the learners' non-linguistic problems and creating a conducive classroom atmosphere that will encourage learners to do more in English-speaking classes [25].

Self-efficacy is an affective factor of key importance when considering learners' achievements. Self-efficacy entails someone's belief about their ability to take and organize the relevant action in achieving the target aims [26], [27]. Self-efficacy has countless benefits for learners in encouraging their efforts to achieve the best speaking performance. WhatsApp group video calls can also stimulate students to be independent speaking practitioners and reduce their speaking anxiety.

Increased motivation and self-efficacy can help EFL learners respond to the learning situation, seeking out all opportunities to acquire the English language and making maximum use of the opportunities afforded to them to practice the language, be adaptable, improve their self-esteem, and take risks in their learning decisions. Self-efficiency and motivation play a crucial role in the language success of the learner; these factors may facilitate learners' needs and increases their learning outcomes [28], [29]. Furthermore, students with good self-efficacy and high motivation have a straightforward learning strategy, work harder, and learn better to reach their desired goals [30], [31].

### C. Speaking Competence

The Indonesian qualification standards for higher education explicitly state the learning outcomes of English-speaking courses throughout Indonesia. Learners must be able to speak English fluently, accurately, and functionally in formal and informal interaction settings [32]. EFL learners may possess knowledge of language functions in supporting functional speaking; language function knowledge leads EFL learners to become competent English speakers actively involved in real interaction. Functional knowledge promotes understanding of utterances in interlocutors/listeners.

EFL learners must strive for competence in English speaking. Competence is demonstrated by how EFL learners perform in presentations, whether linguistically or non-linguistically. Linguistic competence includes phonology, morphology, syntax, and semantics is seen as comprehension of language codes [33], [34]. There are five types of speaking competence: imitative, intensive, responsive, interactive, and extensive. Extensive speaking entails monologues, including speeches, personal oral presentations, and storytelling, where language style is often more deliberative and formal [35].

In this study, an extensive form of speaking competence was evaluated. Six aspects of evaluation are employed in assessing students' speaking performance that adopted from Brown's theory [35]: 1) grammar, which refers to the grammatical accuracy of the student's utterances; 2) vocabulary use; 3) comprehension, which enables students to summarize and determine the purpose of the interaction; 4) fluency, which entails the presentation being clear, easy to follow, and without too much hesitancy or unnecessary pausing; 5) pronunciation accuracy; and 6) task, which means that the conversation is clear and acceptable. EFL learners are asked to understand these aspects before video presentations are conducted.

### D. Covid-19 Pandemic Policy in Indonesia

The National Task Force charged with preventing the development of the COVID-19 pandemic in Indonesia shows that the number of patients who died from COVID-19 rose rapidly every day (temporary records, 25th December 2021) [36]. The Ministry of Education and Culture of the Republic of Indonesia responded to this phenomenon by publishing Circular number 3 in 2020, concerning preventing the COVID-19 pandemic in education units in Indonesia. The Indonesian government legalized online learning in policy, making it an acceptable mode of instruction for all levels of education through certain relevant learning applications, such as Moodle, Google Classroom, Canvas, Ruangguru, Edmodo, and many more. This policy took effect on 15th March 2020 and is in place until an undetermined time, depending on the number of patients who pass away due to COVID-19.

The online learning policy is viewed as a problem-solver in preventing the development of the COVID-19 pandemic in Indonesia. However, online learning does not obscure the substance as a space for knowledge sharing and shaping human integrity, instead making clear its role as a space for knowledge transformation [37]. Online learning offers several advantages, such as time and place flexibility (whenever, wherever), budget effectiveness (e-book prices are relatively lower than those of printed books), and stimulating the learners' language skills and digital literacy skills (learners are required to perform multimedia presentations), as well as promoting independent learners, problem-solving, and more creative thinking [38].

The benefits offered are undeniable; online learning provides EFL learners with a high degree of assistance, enabling learners to interact with native speakers to improve their language skills and language components, offering more exciting and interactive learning instruction [39]. Finally, it empowers students to be more active language users at a global level. WhatsApp is one of many online-based media offered in higher education. It is an ideal option for an English-speaking lecturer due to its practicality. EFL learners and lecturers can agree on presentation schedules and enact them. Video call groups promote not only monologue interaction but also dialogue. EFL learners and lecturers may add participants (up to eight speakers), with others becoming speaking raters to balance the assessment.

## III. Research Method

### A. Research Design

The pre-/post-test, the two-group quantitative explanatory research design was implemented to allow the researchers to include two separate subject groups and contrast the impact of selecting a suitable learning method [40]. The impact of WhatsApp group video calls in four research groups was investigated in the current study context. The four groups were selected randomly from seven classes, with two functioning as experimental groups and two functioning as control groups [41].

WhatsApp group video calls were used in the treatment (experimental) classes. Audio-visual use of WhatsApp

enabled the lecturers to directly see students' pronunciation accuracy, the stress produced in utterances, facial expressions, and nonverbal cues, with virtual interactions conducted, which affected students' affective factors. The control groups were taught using WhatsApp's audio-call (only) feature.

Moreover, the researchers did the following practical activities during research in their role as speaking instructors to enable students to do their speaking through WhatsApp group video calls:

1) Students were asked to provide a particular speaking theme. For instance, digital literacy is a theme in speaking that is not provided by the lecturer but rather by the university students themselves.
2) Every student was required to talk about a given subject.
3) Students recommended their interests that are related to a given theme.
4) Each student made an online presentation audio-visual schedule with an English speaking instructor (speaking lecturer).
5) Each student and an English-speaking lecturer prepared the WhatsApp group video call.
6) Each student delivered a 7-10 minute presentation.
7) The student and the lecturer recorded presentations for reflecting on speaking evaluation aspects.
8) An English speaking lecturer provided relevant input for speaking evaluation.

### B. Population and Sample

The population was selected as a sample using a multistage random sampling technique. The population was 203 students from seven classes at the English Department, Universitas Katolik Indonesia Santu Paulus Ruteng. Four classes with 119 students were selected as a sample using a random sampling technique. These 119 samples were divided among 60 students for experimental and 59 control classes. The selection of this sample was based on the homogeneity test results, which indicated that their initial ability was homogeneous.

TABLE I: THE SAMPLE'S DEMOGRAPHICS

| Demographic | | Number of samples | Percent age |
|---|---|---|---|
| Gender | Male | 34 | 28.57 |
| | Female | 85 | 71.43 |
| Age | 17-18 years old | 8 | 6.40 |
| | 19-20 years old | 102 | 85.40 |
| | 21 years old and over | 10 | 8.20 |
| Grade | First grade | 4 | 3.36 |
| | Second Grade | 115 | 96.64 |
| Education Background | Vocational School | 30 | 25.21 |
| | Senior High School | 89 | 74.79 |
| Marital Status | Single | 118 | 99.16 |
| | Married | 1 | 0.84 |
| | Divorced | - | - |
| Perceived Income | IDR 500.000-IDR 1.000.000 | 32 | 26.89 |
| | IDR 1.100.000-IDR 1.500.000 | 73 | 61.35 |
| | IDR 1.600.000-IDR 2.000.000 | 14 | 11.76 |

The researchers established some criteria for determining the sample from these four classes, including students who passed the conditional subject before taking the speaking for academic purposes subject, have Android-based mobile phones, reside in a stable internet network, have adequate internet quota, and are willing to complete a questionnaire and be interviewed for the triangulation of research data. Students from the English Education Study Program at Universitas Katolik Indonesia santu Paulus Ruteng, who took the speaking for academic purposes subject are represented in Sample 119 of these four classes, as detailed in Table I above.

### C. Research Instrument

Pre-/post-tests and questionnaires were used for data collection purposes. Each test used a speaking rubric developed by [35] to measure the participants' speaking proficiency. The rubric examined the students' speaking competence, focusing on six elements: grammar, vocabulary, understanding, fluency, pronunciation, and task, with the indicator, weighting, ranking, and descriptor being included in each element of those speaking evaluations.

Research Question two (RQ2) focused on how much the WhatsApp group video calls influence the students' affective factors (English speaking motivation), using a Google form for the questionnaire. The questionnaire featured a five-point Likert scale and included ten items that were as similar as possible. The scale ranged from 1 (strong disagreement) to 5 (strong agreement), with higher scores indicating a higher relation. Each question was to be answered by respondents, with a required feature on the Google form application being used. All questions in this questionnaire adhere to Schunk, Pintrich, and Meece's (2008) theory regarding the role of affective factors in language learning [42]. Affective factor in this research focuses exclusively on English speaking motivation, covering self-efficacy and speaking anxiety for the students' affective factors.

Furthermore, the construction of the questionnaire's questions has been validated by three experts to determine the reliability and consistency of the questions.

### D. Data Collection and Analysis

Data was gathered through four procedures as given in a diagram (process flowchart) below (Fig. 1):

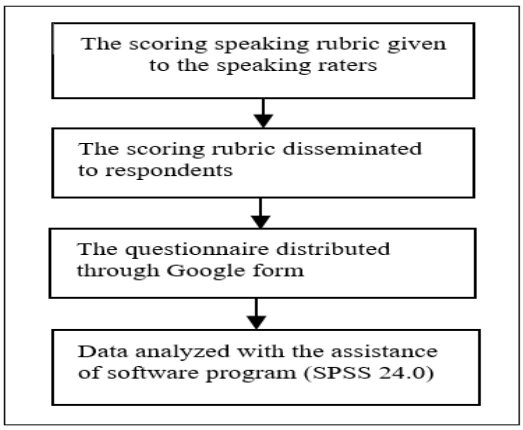


Fig. 1. Data collection procedures.

Then, the data were analyzed using SPSS 24.0, with a z-test followed by assumptions tests, which included a normality test and homogeneity of variance test, and then

well-narrated based on the information provided by this software. Data from the Google questionnaire were displayed in percentage form.

## IV. Results

The findings (Table II and Table III), based on analyzing the differences between the pre-/post-tests, suggest that the implementation of WhatsApp group video calls was effective.

TABLE II: Pre-test Scores

| Group | N | Mean | Median | SD | Variance |
|---|---|---|---|---|---|
| Experimental | 60 | 67.33 | 67.5 | 5.32 | 28.36 |
| Control | 59 | 66.10 | 65 | 4.36 | 19.02 |

Table II shows that, prior to treatment, the groups were equivalent because their mean scores were almost identical, with no significant difference. The normality test results and variance analysis indicate that the experimental group (p = 0.091) and the control group (p = 0.086) data are normally distributed. The variance homogeneity test (p = 0.368) demonstrates that both groups have a homogeneity variant.

WhatsApp group video calls were used for seven meetings. A post-test (Table III) was then conducted after the treatment.

TABLE III: Post-test Results

| Group | N | Mean | Median | SD | Variance |
|---|---|---|---|---|---|
| Experimental | 60 | 84.91 | 85 | 6.14 | 37.70 |
| Control | 59 | 78.30 | 80 | 5.91 | 35.00 |

Post-test data were examined for normality and homogeneity of variance. The Kolmogorov-Smirnov test was used to determine the normality of the results. The significance values for speaking competence in the experimental and control groups are p = 0.179, *ns*, and p = 0.092, respectively, indicating that the data are normally distributed. The data homogeneity test results indicate that the groups are equivalent, with a significance value of p = 0.362.

Additionally, a z-test was used to test the hypothesis. WhatsApp group video calls in speaking classes positively influenced the experimental group.

TABLE IV: Gain Score Results

| Class | N | Score | | | |
|---|---|---|---|---|---|
| | | Ideal | Min | Max | Average |
| Experimental | 60 | 100 | 0.13 | 0.83 | 0.55 |
| Control | 59 | 100 | 0.13 | 0.57 | 0.36 |

Table IV shows that the experimental group's results were better than the control group's. The distinction between the two is illustrated in Fig. 2.

Fig. 2. Gain score result.

Z-tests were conducted to establish the average gain score. The z-test reveals a z-score of 6.007, while the z-table is 1.645. These results show that WhatsApp group video calls impact students' speaking competence. The students' speaking competence was measured in a speaking test validated by three experts (Ph.D. degree) English-speaking lecturers from two universities that are not research locus, namely Udayana University (two experts) and Mataram University (one expert).

The affective factors relating to using the WhatsApp group video calls for learning English were also explored. Questionnaires were used to measure respondents' affective disposition, with the tool adapted from the concept proposed by [42]. Affective factors contribute to students' speaking competence due to their beliefs about learning English [27], [42], [43]. According to [27], [42], [43], affective factors which contribute to the students' speaking achievement include motivation, self-efficacy, and anxiety. These affective factors are interrelated and can positively or negatively influence learning [44].

Before distribution, three experts were asked to determine which questionnaire items were relevant/irrelevant to the content validity of the tool. Questions deemed irrelevant by those experts were then omitted. The questions were used to determine students' level of English-speaking motivation based on their responses to the questionnaire. The respondents' English-speaking motivation levels were classified as high, medium, low, or very low. Table V shows the range of possible scores for each statement on the questionnaire.

TABLE V: Score Category

| Score | Category |
|---|---|
| 1,1 – 2,1 | Very low |
| 2,2 – 3,1 | Low |
| 3,2 – 4,1 | Medium |
| 4,2 – 5,0 | High |

The respondents' (*n*=119) assessment was converted into an agreement level using the earlier five-point Likert scale. The average scores for each item are provided in Table VI.

TABLE VI: Respondent's Average Result

| No | Item | N | Mean | Category |
|---|---|---|---|---|
| 1 | I feel happy, excited, and free from fear over using WhatsApp video call group with audio-visual in speaking class | 119 | 4.4 | High |
| 2 | I never gave up on finishing my speaking assignments | 119 | 3.9 | Medium |
| 3 | I have never felt ashamed to ask my classmates to correct an English speaker that is still wrong | 119 | 3.9 | Medium |
| 4 | I enjoy training classmates who want to practice speaking English | 119 | 4.2 | High |
| 5 | I am very interested in using WhatsApp video call group with audio-visual in speaking class | 119 | 4.6 | High |
| 6 | I was never late to join speaking class | 119 | 4.2 | High |
| 7 | I spend more time completing my speaking assignments compared to other subjects | 119 | 4.6 | High |
| 8 | I have the ambition to be able to speak English fluently and correctly | 119 | 4.2 | High |
| 9 | I dare to speak English when I use WhatsApp video call group with | 119 | 4.6 | High |

| | | | | |
|---|---|---|---|---|
| | audio-visual in speaking class | | | |
| 10 | I enjoy practicing speaking with classmates who want to practice English speaking | 119 | 3.9 | Medium |
| | Overall Mean | | 4.25 | High |

The results shown in Table VI suggest that the English-speaking motivation level of respondents is in the high category (4.25). This infers a strong foundation for EFL teachers to apply appropriate media for speaking classes in the pandemic context. WhatsApp group video calls have a high degree of success in improving students' speaking confidence and self-efficacy, motivation, minimizing speaking inhibition, decreasing English speaking anxiety, promoting independent speaking exercise, and, more importantly, reducing the spread of COVID-19 in Indonesia.

## V. Discussion

This study set out to investigate group video calls through WhatsApp to conduct English-speaking classes during the COVID-19 pandemic. The average score data return useful results for each aspect in terms of the experimental data. The comparison of the average scores between the control and experimental groups in the post-test suggests that the WhatsApp group video calls are an ideal medium for promoting students' English speaking competence, with the average score for each aspect being in line with the ideal standard aspects of speaking assessment. These findings indicate that WhatsApp is an effective alternative to online learning media in a pandemic context; it significantly improves EFL learners' oral communication and listening skills [45], [46]. According to [45] and [46], WhatsApp is also believed to be a strong stimulator for EFL learners to promote their English speaking motivation and self-efficacy and helps improve learners' knowledge of technology development in the education field. Thus, through this media use, EFL learners can promote their speaking and listening skills and develop the affective factors which significantly affect learning achievement.

This study supports three previous studies that found WhatsApp group video calls to be an alternative learning media for developing students' speaking competence and affective factors. Those studies state that such a mode could reduce students' anxiety in pronunciation as the activities are carried out online and increase self-efficacy, self-assessment, learning motivation, and independent language users [47]-[49]. The findings here also add to past studies that report WhatsApp as increasing learners' language skills, time efficiency, learning motivation, autonomous learning, and confidence, and that it maximizes virtual learning gains [50]-[52].

The findings here also support the past claims that online audio-visual learning facilitates students' speaking competence, particularly for vocabulary and pronunciation development, facial expressions, body language use, personal self-regulated learning strategies, and attracts students' attention and motivation, developing their self-awareness with regard their learning progress [53].

The experimental results also seem to add weight to the past findings that show online audio-visual learning enables development in grammar, vocabulary, listening skills, translation skills, self-assessment, motivational learning, and self-efficiency [54]. Furthermore, video-call education effectively facilitates learners' pronunciation (intonation, articulation, rhythm, and sentence stress), fluency, grammar, writing, speaking, autonomous learning, self-confidence, and digital literacy development [55].

WhatsApp group video calls as multimedia stimulate learners' English speaking motivation and self-efficacy and reduce the students' English speaking anxiety. Students are motivated by using this media due to its excellent benefits in terms of linguistic competence and non-linguistic development. Motivation and self-efficacy play a vital role in leading EFL learners' achievement [25], [56], being two variables that affect academic achievement. These variables contribute significantly to the learners' language use and language attitudes in learning, helping to counter speaking anxiety. Therefore, increasing motivation and self-efficacy should be a prime focus in speaking learning [57]-[59].

Speaking instructors must have a clear understanding of motivation, a critical dimension of the effective factors of language learners; motivation is essential in promoting students' speaking achievement and is essential for speaking instructors to consider when identifying student problems and creating a classroom atmosphere conducive to encouraging more speaking practice [2]. Motivated learners are quick to cope with the English speaking process, actively seeking out English courses to improve their communicative competence and self-evaluation.

Although these findings are limited to English Speaking subjects, the implementation of WhatsApp group video calls is possible with other English courses, such as pronunciation practice, reading comprehension, drama performance, and many more. The pandemic presents an opportunity for educators to adapt digital literacy competence in education. WhatsApp group video calls are a digital platform that is very user-friendly for both teachers and learners alike.

In addition, the findings of this study highlight the significance of multimedia's function in the learning process, particularly in speaking classes. During the COVID-19 period in Indonesia, the usage of interactive multimedia such as WhatsApp group video calls as a solution to aid the higher education service process since WhatsApp group video calls, one of the digital platforms can assist education practitioners in effectively implementing online learning policies for all educational levels in Indonesia.

The previous description also confirms that, after administering treatment (WhatsApp group video calls in experimental classes), it is evident that there is a relationship between research questions 1 and 2, particularly regarding the affective factors that influence the university students' improvement in the aspects of speaking competence. For instance, motivation assists students in speaking fluently, effectively using contextual vocabulary, and pronouncing words correctly. The utilization of WhatsApp group video calls also influences respondents' willingness to speak English in front of their Android phones or laptop so that they independently practice the accuracy of aspects of grammar, comprehension, and pronunciation before the online class is

undertaken.

Referring to the results of this study's data analysis, the researchers suggest that future researchers explore the effectiveness of WhatsApp group video calls in non-speaking courses to capture EFL learners' English language skills.

## VI. Limitation

There are some limitations of this study that should be noted. First, the effectiveness of WhatsApp group video calls was limited to extensive speaking in the ten meetings, according to Brown's (2004) scoring rubric. Further research may apply other English skills and speaking types, such as imitative, intensive, responsive, interactive, or public speaking, using the same rubric or adapting it according to the expected target learning outcomes. The affective factors focused upon here were exclusively English-speaking motivation, self-efficacy, and speaking anxiety, with a Google Form quantifying these three components. Further research may explore other components of affective factors, such as attitudes, interests, self-awareness, self-confidence, self-evaluation, and self-efficacy using questionnaires and interviews.

## VII. Conclusion

This study concludes two things based on its data findings: 1) WhatsApp group video calls positively affect the speaking skills of university students during the COVID-19 pandemic. This conclusion is evident from the difference in post-test average scores (Experimental group = 84.91, Control group = 78.30). 2) As demonstrated by the overall mean (4.25) of the questionnaire distributed, which falls into the high category, WhatsApp group video calls have a beneficial impact not only on the cognitive factors but also on the affective factors of university students. These Findings encourage EFL teachers' knowledge of up-to-date multimedia in speaking classes. In addition, the most important and intriguing component of this study's data findings is the knowledge of ICT skills in using and accessing numerous WhatsApp features and the respondents' challenge to stay in an area with a steady internet connection. Consequently, the findings of this study suggest that policymakers establish ICT infrastructure equally and fairly throughout the Republic of Indonesia's region and in Indonesia's educational institutions.

## Conflict of Interest

The authors declare no conflict of interest.

## Author Contributions

Sebastianus Menggo contributed to all the contents of each section in the manuscript, primarily on Research methodology, discussion, and references.

Yosefina Helenora Jem contributed to the abstract and background.

Stanislaus Guna contributed to literature review.

Raimundus Beda contributed to findings, limitation and conclusion.

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