

Blended Learning Method in Korean Final Consonant Pronunciation Learning for Beginner Indonesian KFL Learners

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Abstract. The difference between the writing and pronunciation of the final consonants in Korean language has been considered as one of the causes that makes students learning Korean as a foreign language (KFL) find it difficult to pronounce Korean words correctly. This descriptive qualitative study aimed to investigate the beginner students' pronunciation of the final consonants in Korean and conduct learning method based on the error analysis. Data were collected from 15 students of the Korean Language Education Department, FPBS, UPI, who were asked to pronounce 10 Korean words with final consonants. PRAAT application was used to analyze pronunciation errors. The results show that the percentage of final consonant error pronunciation is 37%. Based on the analysis, participating students who have high GPA, knowledge of pronunciation theory, and Indonesian as a native language pronounced final consonants better. The data also shows that students' knowledge of vocabulary was not linear with pronunciation realization. It depended on the phonological and morphological environments of the vocabulary. These analysis results were then used to inform the design of our flipped classroom model for the implementation of blended learning on Korean final consonant pronunciation.

Keywords: blended learning, error analysis, final consonant pronunciation, flipped classroom, Korean as a Foreign Language (KFL), pronunciation teaching

INTRODUCTION

Pronunciation is considered an important aspect at the beginning stage of learning a foreign language. Good pronunciation may affect the level of success of communication. According to Suh (2007), pronunciation that is not precise and natural might lead to communication breakdown, even though grammar and vocabulary used are accurate. Pronunciation has a relation to other language skills, such as listening and speaking. Pronunciation is one of the first things that is learned and memorized by a learner's brain, so that when they are exposed to inaccurate pronunciation, it will be difficult for them to correct it (Shin, 2014).

Pronunciation is usually taught in the earliest stages of learning a foreign language. In learning Korean language, for example, pronunciation is taught along with the Korean alphabet (hereinafter referred to as Hangeul). As Korean consonant and vowel systems are different from Indonesian, teaching proper pronunciation according to the Korean sound system is therefore pivotal.

One of the causes of improper pronunciation is the difference in sound systems

between two languages. The difference referred to here can mean learning difficulties caused by differences in language habits, but it can also mean ease caused by the similarities that exist in the two languages (Yoon, 2008).

One of the visible differences is in the pair of voiced and unvoiced sounds in Indonesian and Korean. Indonesian has quite complete pairs of voiced and unvoiced sounds, such as [b] and [p], [g] and [k], [d] and [t], [j] and [c]. On the other hand, the Korean language does not have voiced and unvoiced sound pairs. Korean has basic phonemes that are voiceless sounds and voiced sounds that only appear as allophones in Korean (Azizah, 2021). In addition, the sounds [k'], [t'], [p'], [s'], [č'] and [kh], [th], [ph], ㅈ [čh] are included as sounds with difficulty levels of number 4 and 5 (based on the theory of Stockwell et al. 1965) when compared to Indonesian sounds.

Some challenges in teaching the Korean language include the pronunciation of Hangeul alphabets that must be taught accurately and Korean pronunciation that has a lot of sound rules. The sound rules include 두음법칙 [dueum beobchik] "law of initial sound", 받침소리 규칙 [batchim sori gyuchik] "rule of final sound", 비음화 [bieumhwa] "nasalization", and so on. One of the sound rules taught at the elementary level is the final sound rule (받침소리 규칙). The final sound regulation is the rule that governs what sounds can appear at the end of the segmental sound. The allowed sounds for this rule include the following seven sounds ㄱ [k], ㄷ [t], ㅂ [p], ㅁ [m], ㄴ [n], ㅇ [ŋ], and ㄹ [l]. The number of sounds allowed is much different from the writing; 16 single consonants and 11 double consonants can be written at the end of the syllable. For example, the word 닭 [talk] is read as 닉 [tak], the consonant ㄹ [l] in ㄹ [lk] is not read. The difference between pronunciation and writing in many words has become one of the difficulties faced by learners in learning the Korean language.

The difficulty resulting from the differences in pronunciation and writing is also experienced by Korean language learners from Indonesia. Even though Korean and Indonesian languages both have the same basic syllabic structure, namely CVC, Indonesian language differs in terms of its sounds that can appear at the end of segmental sounds.

A number of studies investigating Korean final consonants were carried out involving students from Japan, Vietnam, China, Pakistan, or Myanmar whose national languages have a lower number of allowed final consonants than Korean (see Choe et al., 2021; Choe & Park, 2014; Choe & Song, 2019; Jung, 2013; Phyu & Roh, 2021; Pi, 2011; Ullah, 2019, Shang, 2022; and Liu & Zhang, 2023). Therefore, it is important to examine whether a higher number of final consonants will make it easier or more difficult, in this case for Indonesian students, to acquire Korean final consonant pronunciation.

Research on learning pronunciation or final consonant pronunciation for Indonesian students is still relatively small. In fact, as previously mentioned, research on the pronunciation of final consonants has never been aimed at students from Indonesia. The initial research on Korean pronunciation in Indonesia was conducted by Lee (1999). The research aimed to design a method for learning Korean pronunciation for Indonesian students. Lee's (1999) research is still very basic and does not focus on just one pronunciation. The learning design focuses on the learning of phoneme system and change of sounds. In addition, a large number of studies, such as the ones conducted by Meutia & Kim (2012) and Shin (2016), focus on comparing Korean vowels, which can later be used for Korean language learning. In a similar vein, Song (2014) compares monophthongs and consonants in Indonesian and Korean, which were used to inform the design of the learning method.

Based on error analysis and pronunciation acquisition findings, this study aims to develop blended learning design for teaching Korean final consonant pronunciation. To date, studies investigating learning designs of Korean final consonants have involved learners from China as reported in research conducted by Zhang (2009), Bai (2017), Huang (2016), Liang & Bao (2017), and Shin (2014). Other studies focused on the learning design of final consonants intended for learners with English as their mother tongue (Lee, 2015), Japanese (Cho, 2022) and the learning design aimed for general learners as reported in a study conducted by Yang (2005). While these studies involved various learners, little has been done to investigate final consonant pronunciation in learning Korean language in the context of blended learning. Likewise, there is a scarcity of research involving Korean language learners from Indonesia, which provides an opportunity for this research to contribute.

As the COVID-19 pandemic has spread throughout the world at 2020, including Indonesia, learning processes have been forced to switch to online. This also affects the learning of pronunciation that requires the observation of the shape of the lips as the sounds are produced and must be listened to directly and experienced by learners. This study addresses these challenges through two key objectives: (1) analyzing persistent errors in Korean final consonant pronunciation among Indonesian learners to identify specific learning difficulties, and (2) developing an evidence-based blended learning design that strategically combines online and face-to-face components to optimize pronunciation acquisition. Drawing from error analysis of final consonant production and learner feedback questionnaires, the research will formulate a targeted instructional model to enhance the accuracy and retention of Korean final consonant pronunciation in Indonesia's post-pandemic educational context.

METHOD

This study used a qualitative research design because the main objective of the study was to focus on the analysis of pronunciation errors produced by the elementary level students of Korean Language Education. These findings were used to design an appropriate learning method based on the students' pronunciation errors. The selection of this qualitative research design was based on the view that "Qualitative researchers study things in their natural settings, trying to make sense of, or interpret, phenomena in terms of the meanings people bring to them" (Denzin & Lincoln, 2005). The research design is illustrated in the following chart.

Figure 1 presents a comprehensive research framework designed to analyze Korean final consonant pronunciation errors through two primary methods: (1) interview tests to elicit natural speech samples, and (2) questionnaires to assess students' perceptions of pronunciation instruction. The collected speech data will be analyzed using PRAAT software to identify systematic error patterns and articulation challenges. Based on these findings, a blended learning method will be developed to target the identified pronunciation difficulties, combining online and face-to-face instructional strategies for optimal learning outcomes.

The data collection of this research was conducted by using two types of instruments: interview and questionnaire. The interview was conducted online using the Zoom Meeting platform on June 17, 2021. The Zoom Meeting platform was chosen considering that the Covid-19 Pandemic period had not ended, and online meeting was the best option to prevent the possibility of the spread of the Covid-19 virus. The Interview Guidelines used contained the following.

a) Student Data

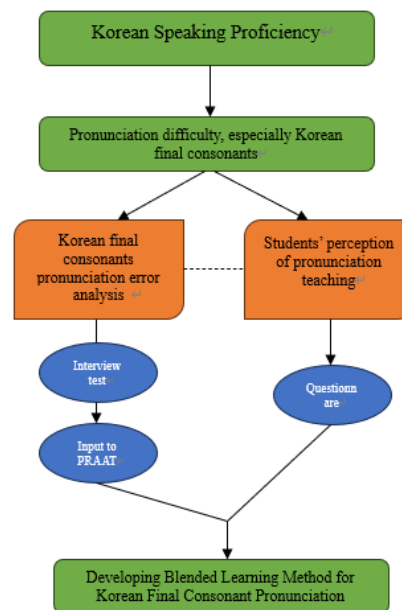


Figure 1. Research Method Design

Students filled in their basic personal data, GPA scores, regional origin, and mother tongue. Of 88 students who filled in their personal data, 15 samples were selected with an even proportion of mother tongue and GPA.

b) Understanding of Korean pronunciation

Students were asked to read six sentences containing the final consonant pronunciation.

The vocabulary used to test the participants was selected based on the application of the final consonant pronunciation in the vocabulary. The rules for final consonant pronunciation have many implications with phonological changes in Korean such as nasalization (bieumhwa, 비음화), linking (yeoneumhwa, 연음화), fortis (gyeongeumhwa, 경음화), palatalization (gugaeumhwa, 구개음화), lateralization (seolcheukeumhwa, 설측음화) and so on. However, the final consonant pronunciation rules used in this study were limited to their relation to Korean syllables (Park, 2017) as follows.

- Linking (yeoneumhwa, 연음화), such as: 깎아 [k'ak'a], 있어 [is'o]
- Simplification of Consonant Cluster (jaeumgun dansunhwa, 자음군 단순화), such as: 뭉 [mok], 값 [kap]
- Changes into Plosive Consonants (phayeoreumhwa, 파열음화), such as: 잎 [ip], 밭 [bat]
- Pronunciation of ㅎ [h] in final consonants, such as 넣는다 [nənninda], 넣고 [nokho], 많소 [mans'o]. In pronouncing ㅎ [h], there is a phonological change of aspiratization (gyeokeumhwa, 격음화) dan fortis (gyeongeumhwa, 경음화). Based on such limitations, the following vocabulary was selected to be used in a sentence form.

The vocabulary was selected based on the rules of final consonants, phonological changes that occurred, and the frequency of its use, see Table 1.

Table 1. Sentence List

1. 빵 반죽에 우유를 넣는다.
2. 앞과 뒤가 안 맞더라도 앞을 계속 봐야 해요.
3. 백화점에 가서 옷과 바지를 샀다.
4. 요구르트는 삶아야 맛있어요.
5. 가방 값과 안경이 값이 똑같네요.
6. 빛 많은 그 사람은 매일 우울증을 겪는다.

The second instrument used in the study was a questionnaire. The questionnaire was used to find out: a) the participants' Korean language learning experiences (four questions); b) difficulties experienced by the participants in pronouncing the Korean language (four questions); c) the method used by lecturers (three questions); d) responses to the method used by the lecturers (one question); e) expectations regarding the desired pronunciation learning experiences (one question). The total questions in the questionnaire were 12 closed questions with a Likert scale and 1 open question.

RESULT AND DISCUSSION

A. Result

The research data were collected on June 17, 2021, through the Zoom meeting platform. A sample of students involved in the study was selected from Class 2020 based on their GPA and origin. Of the 88 students, 15 students were chosen that represented various levels of the GPA: low, average, and high. Each of the categories consisted of 5 students who spoke Javanese, Sundanese, and Indonesian as their mother tongues. The Table 2 is the participants' data.

Table 2. Participants List

No	Participant number	Native Language	GPA (of 4.00)
1	P1	Javanese	3,07
2	L1	Sundanese	3,38
3	P2	Javanese	3,50
4	P3	Sundanese	3,55
5	P4	Indonesian	3,59
6	P5	Javanese	3,62
7	P6	Javanese	3,63
8	P7	Indonesian	3,67
9	P8	Sundanese	3,67
10	P9	Sundanese	3,70
11	P10	Indonesian	3,76
12	P11	Sundanese	3,85
13	P12	Javanese	3,92
14	L2	Indonesian	3,94
15	P13	Indonesian	3,94

The composition of the participants consisted of 13 female and 2 male participants. This was an imbalanced number, but it represented Class 2020 consisting of 82 female students and 6 male students. Thus, the effect of gender was excluded from this study.

In terms of the mother tongue, the participants involved in the study spoke Javanese, Sundanese, and Indonesian. They were equally distributed in each group. Such data could provide information on whether the use of regional languages and Indonesian as mother tongues affected the students' pronunciation performance.

The participants were also distributed equally based on their GPA; five people were selected representing low, average, and high GPA groups. The composition based on the GPA was considered as a factor affecting students' pronunciation of the final consonants. In addition to GPA, a Test of Proficiency in Korea (hereinafter referred to as TOPIK)—a more valid test for assessing students' Korean language skills, was available. However, the TOPIK test in Indonesia was no longer available in 2020. Thus, none of the Class of 2020 had the TOPIK level.

A.1. Korean Final Consonant Pronunciation

A.1.1 Percentage of Pronunciation of Final Consonant Per Participant

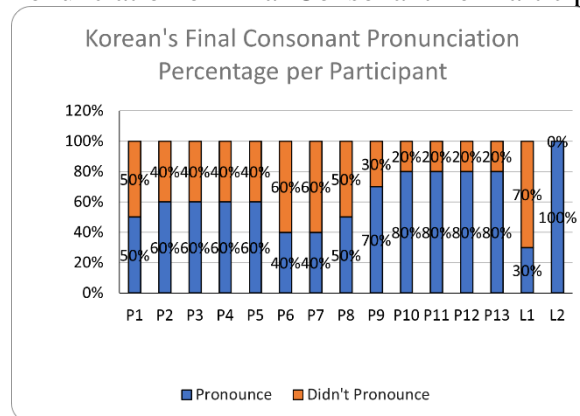


Figure 1. Korean's Final Consonant Pronunciation Percentage per Participant

The Figure 2 above presents a study of Korean final consonant pronunciation accuracy among 13 participants (P1-P13) and two additional groups (L1-L2), showing significant variation in performance. While L2 participant can pronounce all words correctly and P3 achieved the highest accuracy at 60%, several participants (P5, P7, P9, P11, P13) struggled with pronunciation (20% or below), and others (P6, P10) showed moderate ability (30%). Figure 2 shows the percentage of Korean final consonant pronunciation based on the participants, and the average percentage of participants who pronounced the final consonant in Korean is 63%, while the remaining 37% did not pronounce the final consonant correctly. This means that even though more than half of the participants were able to pronounce the final consonant correctly, still, 37% is not a small number.

The final consonant was pronounced perfectly by L2 participants who did not make the slightest pronunciation error in all the words tested. The L2 participants were able to pronounce the following 10 words: 값과 [kap'kwa], 값이 [kapji], 겪는다 [kyəŋninta], 넣는다 [nənninda], 빗 [bit], 앞과 [ap'kwa], 앞을 [aphil], 옷 [üt], 옷과 [ütok'kwa], 활아야 [halthaya] correctly. This suggests a general difficulty among learners in accurately producing Korean final consonants. In addition, there were five participants, namely P9, P10, P11, P12, and P13 who were able to correctly pronounce more than 70% of the words tested. This means that the participant only experienced errors in 2-3 words,

such as 빛 [bit] and 윗옷 [üdot], further underscoring the challenges associated with final consonant pronunciation.

Six participants, namely P1, P2, P3, P4, P5, P8 had a pronunciation percentage above 50% of the words tested. Similar to the participants who had a pronunciation percentage above 70%, the words that could not be properly pronounced by these participants were 빛 [bit] and 윗옷 [üdot]. Most of the participants also did not pronounce 겪는다 [kyəŋninta]. In addition, the result shows that there were three people who had a low percentage of pronunciation below 40%.

A.1.2. Percentage of Pronunciation of Final Consonants Per Vocabulary

In this study, 10 vocabularies were used to test the participants. The pronunciation of these 10 vocabularies depends on the surrounding segmental environment. The words 값과 [kap'kwa], 값이 [kapji], 할아야 [halthaya] have the same double ending consonants; they are ㅂ [ps] and ㅌ [lt]. Other words only have a single double consonant. The words presented here are not single words, but words attached with bound morphemes (grammatical morphemes). This is done because the pronunciation of the final consonant is highly dependent on the bound morpheme attached to the word.

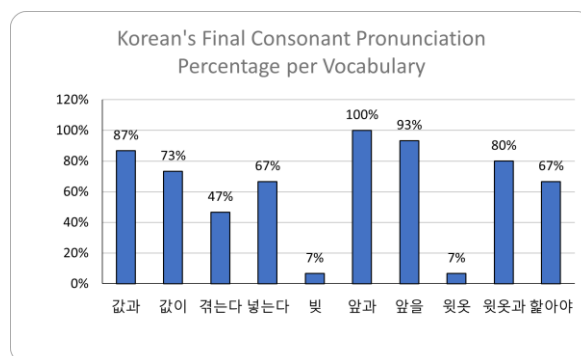


Figure 2. Korean's Final Consonant Pronunciation Percentage per Vocabulary

As can be seen in Figure 3 above, the word 앞과 [apkwa] was perfectly pronounced by all participants, while the word 앞을 [aphil] which had the same base word had a pronunciation percentage of 93%. The words 값과 [kap'kwa] and 값이 [kapji] have the same base word, but 값과 [kap'kwa] has a higher pronunciation percentage than 값이 [kapji], which is 87%. Here 앞 [ap] and 값 [cap] both have a greater percentage when meeting consonant segments than vowels. The words 윗옷 [üdot] and 윗옷과 [üdotkwa] have the same base words but the percentages shown are very different, namely 7% and 80%. Even though they both end in ㅅ [s], different syllable boundaries result in different consonant pronunciations. The words 넣는다 [nənninda] and 할아야 [halthaya] have a pronunciation percentage of 67% and the words 겪는다 [kyəŋninta] have a pronunciation percentage of 47%. The word 빛 [bit] has a pronunciation percentage of 7%, as low as 윗옷 [üdot].

A.2. Factors Causing Errors in the Pronunciation of Korean Final Consonants

As described in the research method, participants provided information related to their GPA, mother tongue, and vocabulary knowledge. The relevance of the provided

information to the realization of pronunciation was analyzed to identify factors causing errors in the pronunciation of Korean final consonants.

A.2.1. GPA

One of the factors that affect the participants' pronunciation level is their GPA. The GPA was used as an indicator because pronunciation was not taught as a course, but it is learned in all Korean language skills is not included in the course and is discussed in all courses teaching Korean language skills. The 15 participants involved in the study represented low, medium, and high GPA.

As displayed in Figure 4, the participants from the low and the medium GPA groups show the same percentage of pronunciation, namely 52%. This indicates that the participants still had difficulty pronouncing most of the final consonants. However, even though most of the participants with low GPA have a pronunciation percentage of 50% and above, two participants (P6 and P7) with moderate GPA had a fairly low percentage of pronunciation, which is 40%.

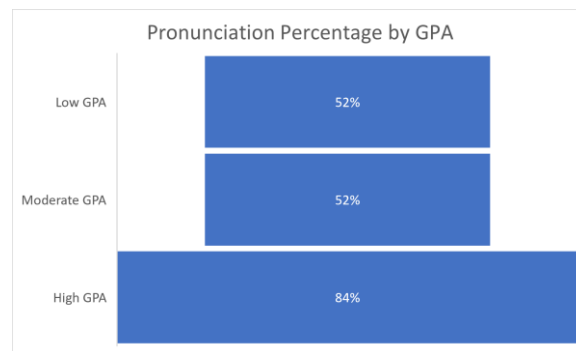


Figure 3. Pronunciation Percentage by GPA

The results also show that the participants with high GPA had a fairly large percentage of pronunciation, namely 84%. It means that the participants with high GPA were able to pronounce most of the final consonants correctly, with an average of 2-3 words that were not correctly pronounced. The participants with high GPA mostly had errors in the words 빛 [bit] and 윗옷 [üdot], which were also found in participants with low and moderate GPA.

A.2.2. The Mother Tongue

The analysis results indicate that the participants' mother tongue affected their pronunciation of Korean final consonants. This study took data from the participants who spoke Javanese, Sundanese, and Indonesian as their mother tongues. Each language was represented by five people. It can be assumed that the participants speaking Javanese or Sundanese as their mother tongue were bilingual speakers before learning Korean as they were able to speak the mother tongue as well as Indonesian as the national language. On the other hand, participants speaking Indonesian as their mother tongue were not necessarily categorized as bilingual speakers.

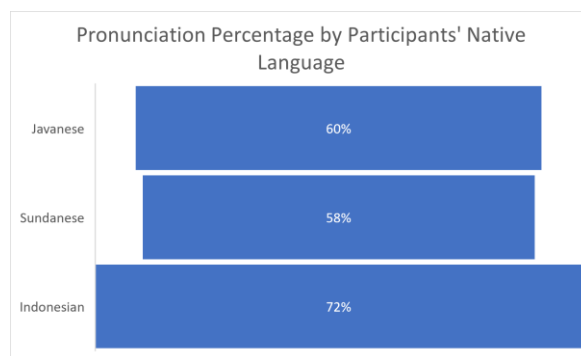


Figure 4. Pronunciation Percentage by Participants' Native Language

Participants speaking Javanese and Sundanese as their mother tongues had almost the same percentage of pronunciation, namely 60% and 58%. However, the participants with Indonesian as their mother tongue showed a fairly large percentage of pronunciation, namely 72%. This is because Javanese and Sundanese speakers were the speakers of the third language (L3) when studying Korean, while Indonesian speakers were the second language (L2) speakers. The complexity of L3 speakers may negatively affect their pronunciation of Korean final consonants. A comparison of the sound systems between Javanese and Sundanese languages and Korean is worth further investigation so that the causes of errors in pronouncing Korean final consonants can be revealed.

A.2.3. Knowledge of Vocabulary

Knowledge of vocabulary plays an important role in learning pronunciation. During the interview, participants were asked to name which vocabulary in a sentence they had never heard before. However, if the participant mentioned a word in a sentence that was not the target of the research data, the data were not included.

The results of the study show the relationship between vocabulary knowledge and the percentage of pronunciation, as illustrated in Figure 6.

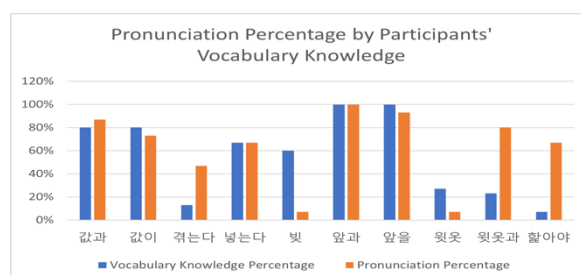


Figure 5. Pronunciation Percentage by Participants' Vocabulary Knowledge

The participants indicate a similar percentage between the level of vocabulary and pronunciation knowledge when dealing with the following words: 값과 [kap'kwa], 값이 [kap'i], 넣는다 [nənninda], 앞과 [apkwa], 앞을 [aphil]. The participants tended to be able to pronounce cluster consonants followed by consonants or vowel as in the words 값과 [kap'kwa] and 값이 [kap'i]. This tendency was also found in the words 앞과 [apkwa] and 앞을 [aphil], which share the same root but are followed by different phonemes. The participants' ability to pronounce these words correctly despite phonological variations suggests that their performance was supported by familiarity with

the root's meaning (vocabulary knowledge), enabling them to adapt to different morphological forms.

The participants showed a fairly large percentage gap between their vocabulary and pronunciation knowledge levels when dealing with the following words: 겪는다 [kyəŋninta], 빛 [bit], 윗옷 [üdot], 윗옷과 [üdotkwa], 할아야 [halthaya]. The words 겪는다 [kyəŋninta], 윗옷 [üdot], 윗옷과 [üdotkwa], and 할아야 [halthaya] have a small percentage as most of the participants did not pronounce these words correctly, except for 윗옷 [üdot]. These words have a percentage of pronunciation that is quite high. The final consonant ㅅ in 윗옷 [üdot] changes to [d] because the form of this word is the compound word 위 [ü] + 옷 [ot]. The final consonant ㅅ here is not seen as a separate sound but is a genetic particle that forms a compound word, 사이시옷 'ㅅ' [s]. Therefore, the final consonant ㅅ is not pronounced [t], but is weakened to become [d] because the sound proceeding is a vowel. This difficulty is caused by morphological elements that have not been taught to elementary-level students.

On the other hand, the word 빛 [bit] has a fairly high percentage of knowledge but the realization of the pronunciation is low. This study only presented the word 빛 [bit] to test the participants, without presenting other phonological conditions. Although 60% of the participants were familiar with the word 빛 [bit], only 7% of the participants were able to pronounce it. Likewise, the word 윗옷 [üdot] has a higher percentage of vocabulary knowledge than the realization of pronunciation. However, the word 빛 [bit] is not accompanied by morphological elements that affect its pronunciation.

Figure 6 shows that vocabulary knowledge is not always proportional to the percentage of pronunciation. Such factors as morphological elements and the similarity of the segmental environment also affected the participants' pronunciation of the final consonants of Korean.

A.2.4. Knowledge about the Theory of Korean Sound Rules

The Table 3 below shows the percentage of participants who had learned the theory of Korean pronunciation and its relation to the percentage of final consonant pronunciation.

Table 3. Pronunciation Percentage by Theory Achievement

	Theory Achievement Percentage	Pronunciation percentage
Achieved theory	73%	66,36%
Never achieve theory	27%	52,50%

As many as 72% of participants said that they had received the theory of phonology, particularly the theory of final consonant pronunciation. The remaining 27% of participants claimed that they had never learned the theory. The participants who have learned the theory had an average pronunciation of 66.36%, while participants who have never learned the theory had an average pronunciation of 52.50%. This shows that speakers who are familiar with the theory of pronunciation will find it easier to pronounce sound changes. However, the difference between these two types of speakers is not significant; thus, more details in each participant need further investigation.

A.3. Questionnaire Results

The participants of the study who were the Class 2020 students attended a fully online learning classroom due to the COVID-19 pandemic that had taken place before they

became students. Pronunciation learning was supposed to be taught intensively since the early stage of the students' learning. However, during the online learning, the students could not get maximum learning experiences or immediate feedback and correction from their lecturers.

Most participants expected more effective pronunciation learning that could help them with the mastery of sound rules in Korean, which explained the irrelevance of pronunciation and the writing system. Many participants encountered difficulties in pronunciation because perhaps pronunciation was not taught on its own in a separate course like Listening, Writing, or Grammar courses. It is, therefore, important for lecturers to integrate pronunciation learning in each course, particularly Speaking and Reading.

A.3.1. Korean Language Learning Experiences

The questionnaire covered questions about the relevance of learning and syllabus and the consistency of discussion of new vocabulary at the beginning of learning new material. In the term of correlation between Korean learning and syllabus, 6 participants answered 'agree', and 9 participants answered 'strongly agree'. The second question is about vocabulary learning in the beginning of the class, 1 participant answered 'neutral', 5 participants answered 'agree', and 9 participants answered 'disagree'. This shows that learning Korean is in accordance with the syllabus determined by the lecturer, and almost always began with a discussion of new vocabulary.

The third question asked about the presence of pronunciation learning in every discussion of the material. This question aimed to identify whether pronunciation was always integrated into learning. The answers to this question are quite diverse, although they are still dominated by 'agree' and 'strongly agree' as indicated by the responses of 6 participants for each answer. This shows that most of the participants experienced the learning of pronunciation. However, most of them (7 participants) answered 'neutral' when responding to their experience of having detailed and comprehensive learning of pronunciation. This is due to the fact that pronunciation learning was not a specific course and not sufficiently represented in textbooks. A few parts of pronunciation learning were typically presented at the end of the textbooks, which were often skipped by lecturers.

A.3.2 Difficulty in Korean Pronunciation

Some participants still found it difficult to pronounce Korean correctly because they perceived that Korean pronunciation was very different from Indonesian. A total of 11 participants answered 'strongly agree' and 4 participants 'agree' with this statement. This means that the difference in pronunciation of these two languages was considered as an obstacle for the participants to learn Korean pronunciation properly.

The second reason is the number of Korean pronunciation rules that participants must understand. A total of 12 participants responded 'strongly agree' and 3 participants 'agree' with this statement. The numerous rules of Korean pronunciation which are very different from Indonesian have made the participants memorize a lot of rules. The rules also made many participants confused when they had to pronounce words with certain sound rules.

However, on the question of whether the participants had difficulty following the correct pronunciation of Korean, the participants' answers were quite diverse, with 'neutral' as the highest number of responses. In addition, from the questions related to whether participants could catch the Korean pronunciation in dramas or content, as many as 8 participants answered 'agree'. From these results, it can be seen that although the

participants felt that the pronunciation and sound rules of the two languages were different, with learning pronunciation, they did not find it difficult to pronounce or understand Korean pronunciation correctly.

A.3.3. Pronunciation Learning Methods Used by Lecturers

The method used by lecturers for learning pronunciation was to provide examples and explanations. Most of the participants (10 participants) responded 'strongly agreed' to the statement that the lecturer gave examples of correct word pronunciation. However, in terms of lecturers' explanation of pronunciation rules, the responses were quite diverse although the majority (8 participants) responded 'strongly agree'. The fact that two participants answered 'disagree' and 'neutral' indicated that the lecturers did not always provide an explanation of the rules when giving examples of pronunciation.

In terms of the lecturers' use various media to teach Korean pronunciation, most participants (7 students) responded 'neutral'. It can be said that compared to the use of media, the lecturers used 'listen and repeat' method for teaching Korean pronunciation.

A.3.4. Responses to the Methods Used by Lecturers

This section focused on only one question about the lecturers' consistency in correcting the students' inappropriate pronunciation. Most responses (9 participants) given were 'strongly agree'. This shows a positive response to the pronunciation correction method used by the lecturer.

A.3.5. Expectations in Learning Pronunciation

The researcher gave open questions to the students regarding the expectation of learning pronunciation. First, the participants mentioned that learning pronunciation was important, the portion for learning pronunciation should be bigger. The explanation of the pronunciation rules is also considered important by students so that they were able to pronounce Korean correctly.

Second, the participants mentioned media variations in learning pronunciation. They expected that the methods used were not only the 'listen and repeat method, but more varied media were used, such as songs or other content in teaching pronunciation.

These two points of expectation can be taken into account by looking at the urgency and use of media when determining the right pronunciation learning method. Especially for the use of media, blended learning can be applied as an alternative learning method, especially during the current COVID-19 pandemic.

B. Discussion

Based on the results of the error analysis and the questionnaire, the acquisition of final consonant pronunciation in Korean is still an issue that must be solved by both instructors and students. Although the number of consonants that can appear at the end of words is more than in Korean, Indonesian students still have difficulty pronouncing final consonants.

Before designing the final consonant pronunciation learning method, the following aspects need to be taken into account.

a) Pronunciation of final consonants is a phenomenon that appears in L2 participant's performance that intralingual errors are predicted to be larger. At the beginning, it is necessary to present the concept that the two languages have different concepts of final consonants. A list of the seven final consonants of the Korean language should be made

explicit to the students. These seven final consonants are the results of the Korean syllable structure and its limitations (Yoon, 2013).

b) Although the correlation between vocabulary knowledge and final consonant pronunciation is not always strong, it remains essential for teachers to integrate pronunciation instruction when introducing new vocabulary. Beyond simply explaining word meanings, instructors should highlight pronunciation patterns—particularly by comparing words with similar phonological structures—to reinforce learners' awareness and accuracy.

c) The morphological conditions of vocabulary should be explained as they can affect pronunciation, such as the word 윗옷 [üdot]. In addition to knowing the correct pronunciation, students are also expected to understand the concept of why a word has a different pronunciation from other words even though the phonological conditions are similar.

d) Based on the results of the questionnaire, students expect to have a variety of media in learning pronunciation. If it is related to vocabulary learning as mentioned in point c), media such as pictures and recordings can be used for teaching pronunciation.

The aforementioned considerations are then used in implementing a blended learning-based learning method. Of the four types of blended learning models described by Staker & Horn (2012), a rotation model based on Flipped Classroom will be suitable for pronunciation learning. The flipped model allows learners to engage with theoretical content (e.g., consonant rules, morphology) independently via pre-class videos or readings, freeing classroom time for interactive pronunciation drills. This Flipped Classroom has received a positive response in language learning (see Enfield, 2013; Fisher et al., 2017; Ngo & Yunus, 2021). In the other hand, Instructors can use in-person sessions to diagnose errors (e.g., mispronunciations of 빗 [bit]) and provide immediate corrective feedback—a critical factor in pronunciation acquisition (Sutisna et al., 2019). Pre-class exposure to multimedia (e.g., recordings of native speakers) further primes learners for feedback-driven refinement.

The following is a blended learning design for teaching final consonant pronunciation that used study materials with learning sequences adjusted to the level of difficulty.

Table 4. Korean Final Consonant Teaching Brief Method

Study Material		Learning Mode	Evaluation
The basic concept of final consonants		Face-to-face expository (virtual face-to-face). Discussion about examples of simple words containing final consonants	Access the LMS for the initial module. Independent tasks for pronunciation recording or pronunciation dictation
Obstruent consonant	final	Online expository with learning videos and modules. Instructors provide input related to students' pronunciation.	Access LMS for learning. Independent tasks for pronunciation recording or pronunciation dictation
Double final consonants		Online expository with learning videos and modules.	Access LMS for learning. Independent tasks for pronunciation recording or pronunciation dictation

Study Material	Learning Mode	Evaluation
The final consonant in relation to other sound changes	Face-to-face expository, discussions of types of Korean sound changes and word examples.	Access the LMS for the initial module. Independent tasks for pronunciation recording or pronunciation dictation
Final consonants related to morphological changes	Face to face expository, discussions of Korean final consonants.	Access the LMS for the initial module. The use of final consonants in communication with role play method or the like.

It is worth noting that the pronunciation learning design illustrated in Table 4 is not independent learning. Rather, the design must be integrated into the learning of other language aspects, especially vocabulary and speaking. As such, students can understand and use Korean final consonants correctly.

The learning design above combines online and offline class, where offline class are used to ensure students' understanding of the material they have studied independently, as well as to correct pronunciation by the instructor.

CONCLUSION

This research aimed to analyze the final consonant pronunciation errors produced by the elementary level students and formulate an appropriate blended learning design. This is because research on Korean pronunciation for Indonesian students is still relatively small, especially regarding the final consonants.

The participants who took part in the pronunciation tests in the study were 15 students. The students were selected from the total of 88 students of the 2020 batch. Participants were chosen based on their GPA, regional origin, and the mother tongue they spoke. The researcher intended to examine the relationships between intellectual level and the influence of mother tongue to the realization of final consonant pronunciation. Data collection was carried out on June 17, 2021 through interviews (pronunciation tests) and questionnaires.

The data obtained from the students' reading sentences were processed into PRAAT to examine the accuracy of the participants' pronunciation more subjectively. The results show that 63% of participants were able to pronounce final consonants correctly, and 37% of participants still made mistakes. In addition, there was one participant who was able to perfectly pronounce the sentences presented.

Four factors were identified as the causes that make the participants produce errors in pronouncing final consonants. These include the influence of GPA, mother tongue the participants spoke, vocabulary knowledge, and knowledge related to pronunciation theory. It is evident that the high GPA and the use of Indonesian as the mother tongue sufficiently affected the participants to be able to pronounce final consonants correctly. However, vocabulary knowledge provided quite diverse correlations on the realization of pronunciation. Vocabulary knowledge was not always linear with the realization of pronunciation, due to the influence of phonological and morphological conditions on the words being tested. Finally, the participants who had learned pronunciation theory have a higher percentage of pronunciation than those who had never learned pronunciation theory.

Based on the results of the error analysis, the blended learning method was formulated, specifically using the Flipped Classroom model. In the method design, the final consonant learning is divided into five parts according to the level of difficulty with various face-to-face and independent learning modes.

The researcher realizes that this research still does not present a mature design related to blended learning. Future research can present the results of students' perceptions of blended learning for pronunciation learning or the effectiveness of blended learning so that pronunciation learning, especially Korean for Indonesian students, can achieve maximum results.

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