Phonological Errors Analysis in Mandarin Pronunciation by Students of the Mandarin Language Program at Hasanuddin University

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Abstract

Mandarin pronunciation is a crucial aspect of language acquisition, setting it apart from languages like Indonesian. Mandarin pronunciation is characterized by vowels, consonants, and tones, and errors in any of these can drastically alter word meanings. This research delves into Mandarin pronunciation errors among students in the Mandarin Language and Chinese Culture Study Program at Hasanuddin University. It comprehensively examines vowels, consonants, and tones to identify common pronunciation mistakes made by students. The research employs a mixed quantitative and qualitative approach, calculating and descriptively explaining the frequency and percentage of errors. Findings reveal that students tend to err in key areas, particularly consonants and tones, including vowel substitution, omission, addition, and difficulty identifying similar-sounding Mandarin characters. These results underscore the importance of a thorough understanding of Mandarin phonology in the context of Mandarin language learning in Indonesia.

Keywords: Phonological Errors, Pronunciation, Mandarin Chinese.

INTRODUCTION

With the rapid advancement of Chinese technology and economy, international relations with China have become increasingly close, leading to a growing interest in the Mandarin language. This phenomenon is not only occurring in other countries but also in Indonesia. Mandarin has become one of the most sought-after languages, as noted by Santri (2024, p. 4921) and Azhra (2024, p. 162). This trend is evident from the numerous language courses, schools, and even universities offering Mandarin instruction, including Hasanuddin University, which now has a Mandarin Language and Chinese Culture Program. Mandarin, as one of the main dialects in China, has been adopted as the national standard for pronunciation and grammar, making it the country's official language.

Mandarin generally features vowels, consonants, and tones that differ from other languages. It includes 6 single vowels, 14 compound vowels, 15 nasal vowels, 23 consonants, and 5 tones (Rahman et al., 2023; Rahman & Weda, 2019; Adam et al., 2024). This variety of sounds results in numerous pronunciation errors in Mandarin. Mispronunciation in Mandarin can lead to significant differences in meaning.

Phonological errors, particularly in Mandarin pronunciation, pose a significant challenge in the learning process. This language's rich array of sounds, including single vowels, compound vowels, nasal vowels, consonants, and complex tone variations, makes it especially difficult for learners (Pan et al., 2023; Arifin & Wiranota, 2023; Lin et al., 2023).

According to Wardhani (2022, p. 103) Every language in the world, including Mandarin, has four skills: reading (口语 kǒuyǔ), listening (听力 tīngli), writing (写作 xiězuò), and speaking (阅读 yuèdú). To be considered proficient in a language, a person must master all four components. However, in learning a language, mistakes often arise during the process (Sakti, 2021; Farhadovna, 2023; Fairuz et al., 2022). One of the most common mistakes is an error in pronouncing a language. This error is often referred to as a phonological error. Phonological errors occur because the production of words in the speech instrument does not match the articulation, thus affecting spoken and written language (Sikana, 2021, p. 75; Aswad et al. 2019; Rahman,2010).

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In this study, the analysis of language errors, adapted from Corder's (1986) theory on errors and mistakes, will be used as the methodological foundation. The researcher focuses on students of the Mandarin Language and Chinese Culture Program at Hasanuddin University, particularly those from the 2019 cohort.

Thus, this research is expected to contribute to a deeper understanding of phonological errors in Mandarin pronunciation, which, in turn, can enhance the effectiveness of Mandarin language teaching methods in Indonesia.

RESEARCH METHOD

The research methodology applied in this study involves both quantitative and qualitative approaches with a descriptive focus. The qualitative approach is used to describe and analyze data in depth (Wekke, 2019, p. 34), while the quantitative approach refers to the collection of empirical data in numerical form (Azhari et al., 2023, p. 36). The researcher employs these approaches to process data quantitatively and to explain the results descriptively in a qualitative manner.

Data for this study were obtained through tests administered to 30 students from the 2019 cohort of the Mandarin Language and Chinese Culture Program at Hasanuddin University. The purpose of these tests was to identify various forms of pronunciation errors in Mandarin made by the students. The test consisted of four questions, including reading passages and several Mandarin vocabulary words. The researcher collected, examined, and analyzed the responses from all participants to identify and classify the errors using a descriptive approach. Thus, this study aims to provide a deeper understanding of Mandarin pronunciation errors in a specific academic setting.

FINDINGS AND DISCUSSION

The number of respondents from the 2019 cohort of the Mandarin Language and Chinese Culture Program involved in this study are 30 students and testing was carried out 10 times with the same linguistic cases with different words. The test comprised 4 different questions, each with varying types and quantities of pronunciations. The following are the Mandarin pronunciation questions that were administered:

No.	Mandarin Pronunciation Questions
1	"Say the word 'mā' (妈, mother) with different tones: mā (妈, Tone 1), má (麻, Tone 2), mǎ (马,
	Tone 3), mà (骂, Tone 4)."
2	"Say the following words: 'āi' (哎, sick), 'ē' (呃, ah), 'ǒu' (藕, a group), 'à' (啊, ah)."
3	"Say the following words: 'bā' (八, eight), 'pā' (趴, wall), 'mā' (妈, mother), 'tā' (他, he)."
4	"Say the word "bǎo" (保, secure) with four different tones: bāo (包, Tone 1), báo (薄, Tone 2), bǎo
	(保, Tone 3), bào (报, Tone 4)."

Table 1. Mandarin Pronunciation Questions

Researchers utilized various Mandarin pronunciation exercises to assess participants' ability to pronounce words correctly. The first exercise required participants to pronounce the word "mā" (妈, mother) with four different tones: "mā" (Tone 1), "má" (麻, Tone 2), "mǎ" (马, Tone 3), and "mà" (骂, Tone 4). The second exercise tested vowel pronunciation in different contexts by asking participants to pronounce words like "āi" (哎, sick), "ē" (呃, ah), "ǒu" (藕, a group), and "à" (啊, ah). In the third exercise, participants were asked to pronounce words with different initial consonants, such as "bā" (八, eight), "pā" (趴, wall), "mā" (妈, mother), and "tā" (他, he). The fourth exercise focused on tonal variations within a single word, asking participants to pronounce the word "bǎo" (保, secure) in four different tones: "bāo" (包, Tone 1), "báo" (薄, Tone 2), "bǎo" (保, Tone 3), and "bào" (很, Tone 4). These exercises were designed to comprehensively evaluate the ability to pronounce vowels, consonants, and tones in Mandarin.

Table 2. Mandarin Pronunciation Errors among Students

Category	Mistakes	Percentage
Vocal 1	90	4/13%
Vocal 2	66	3.03%
Vocal 3	57	2.62%

Vocal 4	104	4.77%
Consonant 1	239	13.45%
Consonant 2	139	6.38%
Consonant 3	108	4.96%
Consonant 4	169	7.76%
Tone 1	275	12.63%
Tone 2	197	9.05%
Tone 3	407	18.69%
Tone 4	267	12.26%
Total	2.178	100%

The total number of pronunciation errors made by the students was 2,178. The highest number of errors occurred in Tone 3, with 407 errors (18.69%), while the lowest number of errors occurred in Vowel 3, with 57 errors (2.62%). In addition, Consonant 1 and Tone 1 also showed a significant number of errors, 293 (13.45%) and 275 (12.63%) respectively. These errors indicate areas that require increased attention in Mandarin pronunciation instruction.

After analyzing the responses from each participant, the researcher was able to identify the types of Mandarin pronunciation errors made by the 2019 cohort of students in the Mandarin Language and Chinese Culture Study Program at Hasanuddin University. These errors include:

Vowel Errors

The most common vowel errors found in this study are:

Single Vowel Substitution

Students substituted single vowels in several Mandarin characters, resulting in the characters having different meanings from their actual meanings. The Mandarin characters that underwent single vowel substitution are as follows:

1	工资 gōngzī	:	An error was found in students when pronouncing the character 工资 gōngzī. Students replaced the vowel i in the character 工资 gōngzī with u. The correct way to read the character 工资 gōngzī is gōngzē.
2	决定 juéding	:	Pronunciation errors also occurred in the character 決定 juéding. Some students pronounce the character 决定 juéding as jiéding. They replaced the vowel u in jué with the vowel i.
3	了le	:	In the character \vec{J} le, students tend to pronounce this character as la, changing the vowel e to the vowel a. Correctly, the character \vec{J} le should be pronounced with the vowel e which is similar to the e in the word "emas"
4	只 zhǐ	:	An error occurred in the character \square zhľ, where students pronounced it as zhu. This is caused by the replacement of the vowel i in zhľ with u.

In the case of pronouncing the character \square zhľ, students often make mistakes by changing the vowel i to u, so they pronounce it as zhu instead of zhľ.

汉字Hànzì	Mispronounced	Correction
工资	gōngzu	gōngzī
决定	jiédìng	juédìng
了	la	le
只	zhu	zhľ

Table 3. Single Vowel Substitution

Compound Vowel Substitution

Some students often make mistakes by replacing compound vowels in Mandarin characters. Examples of such errors include:

1	全 quán	:	Pronunciation errors in the character \pm quán occur when students change the vowel u to the vowel i, so that the character which should be read quán, they pronounce it as qián.
2	些 xiē		Some students make mistakes on the character 些 xiē by changing the vowel e to the vowel a. So the character that should be read xiē, they pronounce it as xia.

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3	左 zuð	:	In the character Ξ zu \check{o} , there is an error when some students change the vowel u to o and
			the vowel o to u. As a result, the character that should be read zuo, they pronounce it as
			zou.

Compound vowel pronunciation errors in Mandarin characters often occur because students replace the correct vowel with the wrong vowel, such as replacing u with i in the character \pm (quán), e with a in the character \pm (xiē), and confusion between u and o in the character \pm (zuð). These errors indicate the need for a deep understanding of compound vowels in Mandarin to correct proper pronunciation.

汉字Hànzì	Mispronounced	Correction
全	qián	quán
些	xia	xiē
左	zou	zuŎ

Table 4. Penggantian vokal gabungan

Nasal Vowel Substitution

The researchers found that students substituted nasal vowels in Mandarin characters with other nasal vowels. The following are Mandarin characters that underwent nasal vowel substitution:

1	金 jīn	:	The researchers found that students replaced the nasal vowel in with the nasal vowel ing in the character \pm jīn. This resulted in a mispronunciation as students pronounced the character \pm , which should be jīn, as jīng.
2	曾 céng	:	An error was also found in the character 曾 céng, where students replaced the vowel e with o. So some students pronounce it as cong, even though it should be pronounced céng."
3	款 kuǎn	:	Some students mispronounced the character 款 kuǎn by changing the vowel a to e. As a result, the character which should be read kuǎn is pronounced as kuən.

Table 5. Nasal Vowel Substitution

汉字Hànzì	Mispronounced	Correction
金	jīng	jīn
曾	cong	céng
款	kuen	kuǎn

Omission of Compound Vowels

1	认为 rènwéi	:	Researchers found the omission of the vowel i in the character 认为 rènwéi. This resulted in the character 认为 which should be pronounced rènwéi, being read as rènwé.
2	高 gāo	:	There is an omission of the vowel o in the character \hat{B} gao. This results in an error in pronunciation, which should be pronounced gao to ga.
3	时候 shíhòu	:	In the character 时候 shíhòu, there is an omission of the vowel u. The character 时候 which should be pronounced shíhòu, is pronounced as shíhò.

Table 6. Omission of Compound Vowels

汉字Hànzì	Mispronounced	Correction
认为	rènwé	rènwéi
高	gā	gāo
时候	shíhò	shihòu

Omission of Nasal Vowels

The most common nasal vowel omission found in this study is the omission of one of the vowels in the nasal vowel ang. Characters that underwent the omission of one vowel in the nasal vowel ang are the characters 放 拾 fàngsōng, 帮助bāngzhù, and 橡皮 xiàngpí.

Table 7. Omission of Nasal Vowels

汉字Hànzì	Mispronounced	Correction
放松	fànsōng	fàngsōng
帮助	bānzhù	bāngzhù

橡皮 xiànpí	xiàngpí	
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Addition of Single Vowels

The addition of vowels to single vowels occurred in the character 法 fǎ. Researchers found that some students added the vowel a after the vowel a in the character 法 fǎ, making it fǎ'a. The addition of the vowel a caused an error in the pronunciation of this character.

Addition of Nasal Vowels

The character that most often undergoes the addition of vowels to its nasal vowel is the character \pm jīn. The character, which should be read as jīn, has the vowel e added after the vowel i, resulting in jīen. With the addition of the vowel e, the pronunciation of the character \pm jīn is no longer correct. In addition, some students also pronounce the character \pm jīn as "jīng," which also makes the pronunciation incorrect. Furthermore, another character that often experiences the addition of vowels to its nasal vowel is the character # zhuàn. The nasal vowel of the character # zhuàn is "uan," but students pronounce it as "zhuàng," leading to a misunderstanding of the meaning.

汉字Hànzì	Mispronounced	Correction
金	jīen/jīng	jīn
法	fǎ'a	fă
赚	zhuàng	zhuàn

Table 8. Addition of Nasal Vowels

Consonant Errors

In this study, the researchers found several consonant pronunciation errors made by the respondents. The following are the errors:

Substitution of consonant c (tsh) with zh (tz)

Some students made errors in pronouncing the consonant c (tsh). They replaced the consonant c (tsh) with zh (tz). The consonant c (tsh) is a non-aspirated apico-dental consonant, while the consonant zh (tz) is a non-aspirated apico-palatal consonant. Examples of characters that underwent consonant substitution are the characters $\dot{\tau}$ cái, \dot{R} cā, and \ddot{H} cuō.

汉字Hànzì	Mispronounced	Correction
才	zhái	cái
擦	zhā	cā
撮	zhuō	cuō

Table 9. Substitution of consonant c (tsh) with zh (tz)

Substitution of Consonant zh (tz) with j (tc)

Consonant substitution also occurred with the consonant zh (tz). Some students replaced the consonant zh (tz) in characters with the consonant j (tc). The consonant zh (tz) is a non-aspirated apico-palatal consonant, while the consonant j (tc) is a non-aspirated lamino-palatal consonant. Characters that underwent the substitution of consonant zh (tz) with j (tc) are \cancel{k} zhun, \cancel{k} zhuo, \cancel{k} zhuo, \cancel{k} zhua, and \cancel{k} zhǎng.

汉字Hànzì	Mispronounced	Correction
准	jŭn	zhŭn
照	jào	zhào
桌	juō	zhuō
抓	juā	zhuā
长	j ǎ ng	zhǎng

Table 10. Substitution of Consonant zh (tz) with j (tc)

Substitution of consonant d (t) with t (th)

The next pronunciation error is the substitution of the consonant d (t) with t (th). The consonant d (t) is a non-aspirated apico-alveolar plosive consonant, while t (th) is an aspirated apico-alveolar plosive consonant. Examples of characters that underwent the substitution of consonant d (t) with t (th) are E diàn, E dian, T ding.

汉字Hànzì	Mispronounced	Correction
店	tiàn	diàn
低	tī	dī
丁	tīng	dīng

Table 11. Substitution of consonant d (t) with t (th)

Substitution of Consonant x (c) With s

The consonant x (ε) is a non-aspirated lamino-palatal fricative consonant, while the consonant s is a non-aspirated apico-dental fricative consonant. Examples of characters that underwent the substitution of consonant x (ε) with s are Exi xi $\tilde{\varepsilon}$, T xi \tilde{a} , \overline{m} x \tilde{x} , and $\sqrt{\gamma}$ xi \tilde{a} o.

Table 12. Substitution of consonant x (c) with s

汉字Hànzì	Mispronounced	Correction
些	siē	Xiē
下	sià	Xià
西	sī	Xī
小	siăo	Xiǎo

Substitution of Consonant k (kh) With g (k)

Some students replaced the consonant k (kh) with g (k). The consonant k (kh) is an aspirated dorsovelar plosive consonant, while the consonant g (k) is a non-aspirated dorsovelar plosive consonant. Examples of characters that underwent the substitution of consonant k (kh) with g (k) are the characters the kuài, the kuài, and the kang.

Table 13. Substitution of consonant k (kh) with g (k)		(kh) with g (k)
ZHànzì	Mispronounced	Correction

汉字Hànzì	Mispronounced	Correction
块	guài	kuài
款	guǎn	kuǎn
康	gāng	kāng

Substitution of Consonant g (k) With k (kh)

Consonant substitution errors in Mandarin pronunciation were also found in the consonant g (k). Students replaced the consonant g (k) with k (kh). The consonant g (k) is a non-aspirated dorsovelar plosive consonant, while the consonant k (kh) is an aspirated dorsovelar plosive consonant. Examples of characters that underwent the substitution of consonant g (k) with k (kh) are the characters \mathbb{R} gǎn, \uparrow gè, and \oplus guǎn.

Table 14. Substitution of consonant g (k) with k (kh)

汉字Hànzì	Mispronounced	Correction
感	kǎn	g ǎ n
个	kè	gè
管	kuǎn	guǎn

Omission of One Consonant From zh

Some students omitted one of the consonants from zh, pronouncing it as z. This resulted in incorrect

pronunciation of Mandarin characters. Examples of characters that underwent the reduction of one consonant from zh are the characters 照 zhào and 找 zhǎo.

Table 15. Omission of One Consonant From zh

汉字Hànzì	Mispronounced	Correction
照	zào	zhào
找	zǎo	zhǎo

Omission of One Consonant From ch

Examples of characters that underwent the omission of one consonant from the consonant ch are the characters \boxplus chū and \pounds chù.

Table 16. Omission of One Consonant From ch

汉字Hànzì	Mispronounced	Correction
出	cū	chū
处	cù	chù

Omission of One Consonant From sh

The omission of one consonant from sh is one of the causes of pronunciation errors in Mandarin. This pronunciation error was found in this study. The disappearance of one consonant can cause an incorrect meaning of the pronounced character. Examples of characters that underwent the omission of one consonant from sh are the characters 是 shì, 生 shēng, 事 shì, and 身 shēn.

Table 17. Omission of One Consonant From sh

汉字Hànzì	Mispronounced	Correction
是	sì	shì
生	sēng	shēng
事	sì	shì
身	sēn	shēn

Aspiration and Non-Aspiration Errors

Aspiration Errors

Some Mandarin characters should be pronounced with aspiration. However, the researchers found that some students pronounced these characters without aspiration or breath release. Examples of such mispronunciations occurred in the characters \bar{x} cái, \bar{x} pí, \bar{n} tóng, \bar{x} kǎ, \bar{r} piàn, \bar{x} tiān, and \bar{z} qǐ.

汉字Hànzì	Mispronounced	Correction
才	cái (without aspiration)	cái (with aspiration)
皮	pí (without aspiration)	pí (with aspiration)
司	Tóng(without aspiration)	tóng (with aspiration)
*	k ǎ (without aspiration)	kǎ (with aspiration)
片	piàn (without aspiration)	piàn (with aspiration)
天	tiān (without aspiration)	tiān (with aspiration)
起	q ǐ (without aspiration)	qĭ (with aspiration)

Table 18. Aspiration Errors

Non-Aspiration Errors

In addition to being pronounced with aspiration, there are also several Mandarin characters that must be pronounced without aspiration or breath release. However, in this study, the researchers found that students pronounced these characters with aspiration. This causes errors in their pronunciation. Examples of these characters are the characters \mathbf{p} zhong, \mathbf{k} bì, \mathbf{t} dong, \mathbf{k} gǎo, and \mathbf{k} diǎn.

Table 19. Non-Aspiration Errors

汉字Hànzì	Mispronounced	Correction

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种	zh ǒ ng (with aspiration)	zh ǒ ng (without aspiration)
必	bì (with aspiration)	bì (without aspiration)
懂	dong (with aspiration)	dong (without aspiration)
高	găo (with aspiration)	găo (without aspiration)
	diǎn (with aspiration)	diǎn (without aspiration)

Tone Errors

In this study, the researchers found several tone pronunciation errors made by students in pronouncing Mandarin. Tone errors in Mandarin were analyzed using an application that can identify sounds. The application is called Praat. The following are the errors in Mandarin pronunciation found:

Tone 1 Errors

1	Tone Lowering	:	The pronunciation of tone 1 is flat, neither rising nor falling. However, the researchers found that some students made pronunciation errors in the form of lowering tone 1. The most common Mandarin pronunciation error made by students related to lowering tone 1 was in the characters 资 zī, 松 sōng, and 单 dān.
2	Tone Raising		In addition to lowering the tone, errors in tone 1 pronunciation also occurred due to raising the tone. The most common Mandarin pronunciation error made by students related to raising tone 1 was in the characters 天 tiān and 初 chū.

Tone Errors 2

Tone 2 in Mandarin should be read from a low tone to a high tone. However, some students make mistakes in pronouncing tone 2. The following are the tone 2 errors:

1	Flat Tone	:	Some students pronounce tone 2, which should be pronounced from a low to a high tone, as a flat tone. Common mispronunciations of Mandarin characters with tone 2 include the characters 情 qíng, 其 qí, and 福 fú.
2	High to Low Tone		Pronouncing a high tone to a low tone is a tone 2 error made by students. Mispronunciations of Mandarin characters with tone 2 that are pronounced from a high to a low tone are the characters 没 méi, 瞒 mán, and 同 tóng.

Tone 3 Errors

The way to pronounce tone 3 is from a high tone to a low tone and then back to a high tone. However, some students make mistakes in pronouncing it. The following are the errors:

1	Flat Tone	:	One error in pronouncing tone 3 is pronouncing it with a flat tone. Some students make this mistake so that their pronunciation becomes wrong and has another meaning. Examples of mispronounced Mandarin characters with tone 3 that are pronounced with a flat tone are the characters 种 zhǒng, 死 sǐ, 短 duǎn, and 管 guǎn.
2	Omission of the Low Tone Part	:	Besides pronouncing tone 3 using a flat tone, omitting the low tone part is also a mistake in pronouncing tone 3. Examples of mispronounced Mandarin characters with tone 3 that are pronounced without the low tone are the characters $\overline{\pi}$ zhǒng, $\overline{\pi}$ yǒu, and \overline{m} wǎn.

Tone 4 Errors

Tone 4 in Mandarin is read from a high tone to a low tone. However, some students made mistakes in pronouncing tone 4. Students pronounced tone 4 from a low tone to a high tone. Examples of mispronounced Mandarin characters with tone 4 that are pronounced from a low to high tone are the characters \ddagger piàn and \ddagger dìng.

Tone 5 Errors

Tone 5 in Mandarin is a tone that is pronounced lightly (without tone). However, some students made mistakes by pronouncing tone 5 or this neutral tone in the following ways:

1	Excessive Emphasis	:	Students put excessive emphasis so that it seems like they are pronouncing tone 4. This causes errors in student pronunciation. The tone 5 characters that are
			pronounced with excessive emphasis are the characters 的 de, 么 me, and 了

			le.
2	Pronounced with Tone 2	:	Researchers found that tone 5 characters were also pronounced with tone 2 (from low to high tone). The tone 5 character that is most often pronounced with tone 2 is the character \hat{H} de.

Sound Errors in Tone Rules

Researchers found many errors made by students in the following rules:

1	If the character $\overline{\Lambda}$ bù (tone 4) is in front of a character with tone 1, 2, or 3, then the tone of the character $\overline{\Lambda}$ bù remains tone 4. However, if the character $\overline{\Lambda}$ bù is in front of a character with tone 4, then $\overline{\Lambda}$ bù changes tone from tone 4 to tone 2.
2	If the character $-$ yī (tone 1) is in front of a character with tone 1, 2, or 3, then $-$ yī changes tone from tone 1 to tone 4. If the character $-$ yī is in front of a character with tone 4, then $-$ yī changes tone from tone 1 to tone 2.

Students make pronunciation errors in Mandarin by not paying attention to the placement of the characters $\overline{\Lambda}$ bù and $\overline{-}$ yī. The following are the most common mistakes:

1	Tone Change of 不 bù	:	In this study, many students made mistakes in the tone change of 不 bù which should have been. The errors found were in the tone of 不 bù which should change to tone 2 if it is in front of a character with tone 4, namely in the words 不必 bùbì, 不怕 bùpà, 不弄 bù nòng, 不乐 bù lè, 不易 bùyì and 不在 bùzài.
2	Tone Change of → yī	:	Students made many mistakes in pronouncing the tone change of $-y\bar{i}$. The most common mistakes were found in the words $-f\bar{f}y\bar{i}b\bar{a}i, -2ky\bar{i}nn, -ky\bar{i}h\bar{i}a, -ky\bar{i}a, -k$

CONCLUSION

Based on the voice recordings obtained from this study, it is evident that students in the Mandarin Language and Chinese Culture Study Program at Hasanuddin University often encounter difficulties in pronouncing vowels, consonants, and tones in Mandarin. One of the most common errors is vowel substitution, where some students tend to replace the correct vowel with a different one, altering the meaning of the word. For example, the character "认为" (rènwéi) is often mispronounced as "rènwé" by omitting the vowel "i." Additionally, errors also occur in consonants, such as the character "高" (gāo), which is sometimes pronounced without the consonant "o," resulting in "gā." Another issue lies in tone pronunciation, as seen in the character "时候" (shihòu), where some students disregard the tone rules and pronounce it as "shihò" instead of the correct "shihòu."

These errors indicate significant challenges in learning Mandarin in the academic environment. A good command of vowels, consonants, and tones in Mandarin is key to understanding and communicating effectively in a language context that is very different from Indonesian. By understanding these types of errors, it is hoped that relevant parties can improve more effective learning strategies to help students overcome difficulties in pronunciation and improve their overall Mandarin language competence.

REFERENCES

Adam, M., Rahman, F., Abbas, H., & Sahib, H. (2024). Corpus-Based Diachronic Study of WAR Metaphor in Indonesian Political Discourse. International Journal of Religion, 5(7), 515-523.

Arifin, M. N., & Wiranota, H. (2023). Phonetic Proficiency in/r/Pronunciation: A Case Study of Chinese Students Learning Indonesian. Linguistics and ELT Journal, 11(2), 92-98.

Aswad, M., et al. (2019). A software to increase English learning outcomes: An acceleration model of English as the second language. The Asian EFL Journal, 26(6.2), 157.

Azhari, M. T., Bahri, A. F., Asrul, & Rafida, T. (2023). Metode Penelitian Kuantitatif. Jambi: PT. Sonpedia Publishing Indonesia. Azhra, A. F., Sa'adah, N., Azzahra, R., Anesti, Y., & Hamidah, S. (2024). Pembelajaran Bahasa Mandarin Dari Sudut Pandang

Sosial Budaya. Atmosfer: Jurnal Pendidikan, Bahasa, Sastra, Seni, Budaya, dan Sosial Humaniora, 2(2), 161-167.

Corder, S. P. (1986). Talking shop. ELT journal, 40(3), 185-190.

Phonological Errors Analysis in Mandarin Pronunciation by Students of the Mandarin Language Program at Hasanuddin University

- Fairuz, Rahman, F., & Amin, M. A. (2022). Authors' Figurative Expressions From Two Novels: A Comparative Analysis Between RTJNA Rosso and RTJNA Blu. Theory and Practice in Language Studies, 12(1), 150-157.
- Farhadovna, A. S. (2023). Achievements and Disadvantages of Using Authentic Materials in Teaching a Foreign Language (Chinese) to High School Students. Journal of Intellectual Property and Human Rights, 2(2), 27-29.
- Lin, Y., Li, F., MacLeod, A. A., & Pollock, K. E. (2023). A conceptual model of second language pronunciation in communicative contexts: Implications for children's bilingual education. Frontiers in Psychology, 14, 1125157.
- Pan, L., Sun, D., Zou, Y., Cao, Y., Zhang, J., & Li, F. (2023). Psycho-linguistic and educational challenges in Teaching Chinese (Mandarin) Language: voices from None-Chinese teachers of Mandarin language. BMC psychology, 11(1), 390.
- Rahman, F. (2010). Fakta Kebahasaan di Sulawesi Selatan: Language Learning Perspektif. Seminar Internasional "Peran Fakultas Sastra Universitas Hasanuddin dalam Menciptakan Keberaksaraan Bahasa, Sastra, dan Budaya Lokal di Era Interaksi Global, (p. 6). Makassar.
- Rahman, F., & Weda, S. (2019). Linguistic deviation and the rhetoric figures in Shakespeare's selected plays. XLinguage" European Scientific Language Journal", 12(1), 37-52.
- Rahman, F. F., Ahmad, T. W. B., Badaruddin, S., & Andini, C. (2023). Moral Values in the Film Not One Less《一个都不能少

》张艺谋对《一个都不能少》电影道德价值分析. ELS Journal on Interdisciplinary Studies in Humanities, 6(2), 376-390.

- Sakti, K. F. L. (2021). Implementing Little Fox Chinese Video-Tailored Instruction in A Mandarin Listening Class. Research and Innovation in Language Learning, 4(2), 164-171.
- Santri, Y., Thamrin, L., & Lusi, L. (2024). Analisis Kondisi Pembelajaran Bahasa Mandarin di Sekolah Dasar. JIIP-Jurnal Ilmiah Ilmu Pendidikan, 7(5), 4919-4925.
- Sikana, A. M., Nugroho, A. A., & Tahe, P. (2024). Kesalahan berbahasa tataran Fonologi pada pidato juru bicara penanganan virus Covid-19 Achmad Yurianto. Disastra: Jurnal Pendidikan Bahasa dan Sastra Indonesia, 3(1), 74-81.
- Wardhani, R., Aditya, R., Anggiani, M., & Siregar, S. S. (2022, November). Strategi Pembelajaran Menyimak Bahasa Mandarin pada Pembelajaran Jarak Jauh dan Pasca Pandemi Covid-19. In Prosiding Seminar Nasional Bahasa, Sastra, dan Seni (Vol. 2, pp. 102-112).

Wekke, I. S. (2019). Metode Penelitian Sosial. Yogyakarta: Penerbit Gawe Buku.