



# The Influence of Marriage Migrant Women's Native Language Interference the Articulation and Phonology of Children in Multicultural Families

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**Purpose:** This study investigates how native language interference, based on the countries of origin (China and Vietnam) of marriage migrant women, impacts the articulation and phonological variations in their children's speech development. The ultimate goal is to proactively intervene and reduce articulation-related difficulties during the children's critical speech development period.

**Methods:** The participants were 29 elementary school children from multicultural families in South Korea, aged from 6 years 11 months to 12 years 11 months. The children consisted of 14 with Chinese backgrounds and 15 with Vietnamese backgrounds, all demonstrating receptive language skills within or above -1 standard deviation. Assessments were conducted individually by the researcher in quiet, isolated environments.

**Results:** First, no statistically significant differences were found in correct articulation counts between the two groups. Both groups frequently exhibited errors in phonation types, highlighting significant difficulties, as well as omissions of final consonants.

Second, common phonological variations observed included deaspiration, lenition, fortition, fronting (palatal, alveolar, velar), alveolarization, plosivization, bilabialization, omission of plosives, and nasalization, with no significant differences between groups.

**Conclusions:** The observed articulation and phonological errors, especially frequent phonation type errors and final consonant omissions, reflect linguistic constraints inherent in Chinese and Vietnamese languages. Chinese lacks tense consonants within its phonetic structure, while Vietnamese struggles with precise differentiation despite phonetic similarities. These findings emphasize the necessity for proactive, targeted intervention strategies to effectively mitigate native language interference impacts in children from multicultural families.

**Keywords:** Multicultural family, A child from a multicultural family, Articulation in multicultural families, Native language interference phenomenon, Articulation, Phonological disorder



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## INTRODUCTION

A multicultural family is a family that has been exposed to various cultures, including foreign families who have lived abroad or are living in Korea and internationally married families. Children from multicultural families suffer from language development delays due to the difficulty of their migrant mothers in speaking Korean and do not receive enough quality linguistic stimulation during the most critical period of language acquisition; furthermore, they show language learning sluggishness due to lack of lan-

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guage skills[1], and even after language development improves, they sometimes have difficulty communicating with their peers due to pronunciation problems. In particular, the language skills of migrant women who are mothers of children in multicultural families have been reported to be closely related to their children's language skills [1-3].

Children in multicultural families cannot help but be influenced by the phonological system of their mother's country of origin by living with their mothers at home for an extended period. They may experience confusion arising from this environmental factor and interference from the differences between Korean and their mother's native language, especially in phonological aspects [4]. Children from multicultural families are said to be naturally exposed to both their mother tongue and Korean, and in such cases, they are said to experience language mixing [5].

Children from multicultural families have many deficiencies not only in language ability but also in articulation and phonological skills, and the linguistic and articulatory-phonological stimuli they receive from their primary caregiver, usually the mother, at home are extremely limited [6].

Research on articulation and phonological variation in children from multicultural families has shown that children from multicultural families have lower articulation and phonological skills than children from non-multicultural families [7]. The consonant accuracy of children from multicultural families is lower than that of children from non-multicultural families. A statistically significant correlation exists between mothers' and children's articulatory skills, especially for children aged 3 to 4 years. Phonological patterns are also significantly different in tension and phonation, with relaxed articulation observed more frequently.

Therefore, this study aimed to investigate the effects of interference in the mother tongue of a migrant woman on the articulation characteristics of children in multicultural families after articulation has developed typically, and the effects of interference in the mother tongue of a marriage migrant woman on the phonological variation characteristics of children in multicultural families.

## METHODS

The subjects of this study were 29 children, aged 6 years and 11 months to 12 years and 11 months, with no abnormalities in articulatory system structure and function, who scored -1 SD or higher on the Receptive & Expressive Vocabulary Test

(REVT) (Young-tae Kim, Kyung-hoon Hong, Kyung-hee Kim, Hye-sung Jang, & Joo-yeon Lee, 2009). The distribution of marriage migrant mothers by country was 14 from China and 15 from Vietnam. To investigate the articulatory and phonological characteristics of children from multicultural families with marriage migrant mothers, 119 test words were selected concerning a standardized articulation and phonology assessment tool, and the evaluation was conducted using these words. Statistical analysis was performed using SPSS for Windows 18.0, and an independent t-test was conducted. The significance level was less than 0.05. The characteristics of the audience are shown in Table 1 below.

**Table 1.** Audience characteristics

Group	Gender	Mother's country of origin	Chronological age	SD
A1	M	China	7;9	M
A2	M	China	9;3	M
A3	M	China	9;7	M
A4	M	China	9;5	M
A5	M	China	10;0	M
A6	M	China	11;1	M
A7	M	China	11;6	M
A8	M	China	11;7	M
A9	F	China	10;6	M
A10	F	China	10;2	M
A11	F	China	11;10	M ~ -1SD
A12	F	China	12;3	M ~ -1SD
A13	F	China	12;9	M
A14	F	China	12;5	M
B1	M	Vietnam	6;11	M
B2	M	Vietnam	7;2	M
B3	M	Vietnam	8;3	M
B4	M	Vietnam	11;8	M
B5	M	Vietnam	10;0	M
B6	M	Vietnam	11;3	M
B7	M	Vietnam	11;6	M
B8	F	Vietnam	7;6	M ~ -1SD
B9	F	Vietnam	7;8	M ~ -1SD
B10	F	Vietnam	7;10	M
B11	F	Vietnam	10;0	M
B12	F	Vietnam	11;7	M ~ -1SD
B13	F	Vietnam	11;4	M ~ -1SD
B14	F	Vietnam	11;8	M ~ -1SD
B15	F	Vietnam	11;9	M

## RESULTS

### Articulatory characteristics of children from multicultural families by country of origin of marriage migrant mothers

#### Consonant accuracy of children from multicultural families by country of origin of marriage migrant mothers

To examine the consonant accuracy of the study participants, a word list revised and supplemented by the researcher was used, and the results were calculated as raw scores. An independent samples t-test was conducted to examine the difference in consonant accuracy between the two groups. As a result, the number of correctly articulated consonants in children from multicultural families with marriage migrant mothers from China was 117.21 (3.09), and the number of correctly articulated consonants in children from multicultural families with marriage migrant mothers from Vietnam was 117.33 (1.98). An independent samples t-test was conducted to examine the difference between the two groups, and the result showed  $t = -0.124$  ( $p > 0.05$ ), indicating no significant difference between the two groups (Table 2).

#### Place of articulation position characteristics of children from multicultural families by country of origin of marriage migrant mothers

To examine whether there were differences in place of articulation errors between the two groups, an analysis of the place of articulation errors of children from multicultural families according to the country of origin of marriage migrant mothers was conducted. As a result, for children from multicultural families with marriage migrant mothers from China, the types of place of articulation errors were found in the following order: alveolar sounds (11 times), bilabial sounds (8 times), velar sounds (6 times), palatal sounds (1 time), and glottal sounds (1 time). In the alveolar place of articulation, errors were observed as follows: /ss/ for /s/ 3 times, s/ss 3 times, η/n 2 times, m/n 1 time, n/l 1 time, and omission of /l/ 1 time. In the bilabial place of articulation, errors were p/ph 5 times, p/pp 2 times, and omission of /m/ 1 time. In the velar place of articulation, errors were k/kk 2 times, omission of /η/ 2 times, n/η 1 time, and omission of /k/ 1 time. In the palatal place of articulation, an error of t/c was observed 1 time. In the glottal

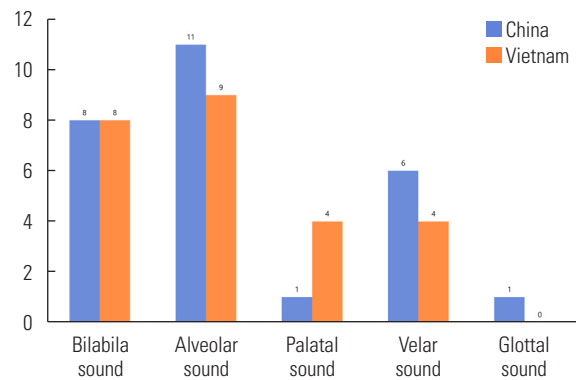
place of articulation, an error of s/h was observed 1 time. For children from multicultural families with marriage migrant mothers from Vietnam, the types of place of articulation errors were observed in the following order: alveolar sounds (9 times), bilabial sounds (8 times), velar sounds (4 times), and palatal sounds (4 times). In the alveolar place of articulation, errors were observed as follows: s/ss 2 times, tt/ss 2 times, tt/t 1 time, omission of /t/ 1 time, m/n 1 time, n/l 1 time, and omission of /l/ 1 time. In the bilabial place of articulation, errors were p/ph 5 times, p/pp 2 times, and ph/pp 1 time. In the palatal place of articulation, errors were t<sub>c</sub>/t<sub>c</sub><sup>h</sup> 2 times, tt/t<sub>c</sub> 1 time, and t<sub>c</sub>/t<sub>c</sub> 1 time. In the velar place of articulation, errors were kk/kh 3 times and n/η 1 time. In both groups, errors were most frequently observed in the alveolar place of articulation, particularly showing a pattern of producing tense and aspirated sounds as lax sounds within the same place of articulation (Figure 1).

#### Manner of articulation characteristics of children from multicultural families by country of origin of marriage migrant mothers

To examine whether there were differences in the manner of articulation errors between the two groups, an analysis of the manner of articulation errors of children from multicultural families according to the country of origin of marriage migrant mothers was conducted. As a result, for children from multicultural families with marriage migrant mothers from China, the types of manner of articulation errors were observed in the following order: plosives (10 times), fricatives (7 times), nasals (7 times), liquids (3 times), and affricates (1 time). In the case of plosives, errors were observed: p/ph 5 times, p/pp 2 times, k/kk 2 times, and omission of /k/ 1 time. In the case of nasals, errors were η/n 2 times, omission of /η/ 2

**Table 2.** Analysis of differences in consonant accuracy of children from multicultural families by country of origin of marriage migrant mothers

Group	People	Mean (SD)	t
A	14	117.21 (3.09)	-0.124
B	15	117.33 (1.98)	



**Figure 1.** Frequency of place of articulation position errors in children from multicultural families by country of origin of marriage migrant mothers.

times, m/n 1 time, omission of /m/ 1 time, and n/ŋ 1 time. In the case of fricatives, errors were ss/s 3 times, s/ss 3 times, and s/h 1 time. In the case of liquids, errors of /l/ 2 times and n/l 1 time were omitted. In the case of affricates, an error of t/c was observed 1 time. For children from multicultural families with marriage migrant mothers from Vietnam, the types of manner of articulation errors were observed in the following order: plosives (13 times), affricates (4 times), fricatives (4 times), nasals (2 times), and liquids (2 times). In the case of plosives, errors were observed as follows: p/ph 5 times, p/pp 2 times, tt/t 1 time, and omission of /t/ 1 time. In the case of affricates, errors were tʃ/tʃ<sup>h</sup> 2 times, tt/tʃ 1 time, and tɕ/tɕ 1 time. In the case of fricatives, errors were s/ss 2 times and tt/ss 2 times. In the case of nasals, errors were m/n 1 time and n/ŋ 1 time. In the case of liquids, errors were n/l 1 time and omission of /l/ 1 time (Figure 2).

**Type of phonation characteristics of children from multicultural families by country of origin of marriage migrant mothers**

To examine whether there were differences in phonation type errors between the two groups, an analysis of phonation type errors of children from multicultural families according to the country of origin of marriage migrant mothers was conducted. As a result, for children from multicultural families with marriage migrant mothers from China, the types of phonation errors were observed in the following order: tense sounds (8 times), aspirated sounds (5 times), and lax sounds (3 times). In the case of tense sounds, errors were observed as follows: p/pp 2 times, k/kk 2 times, s/ss 3 times, and tɕ/tɕ 1 time. In the case of aspirated sounds, errors were p/ph 5 times. In the case of lax sounds, errors were ss/s 3 times.

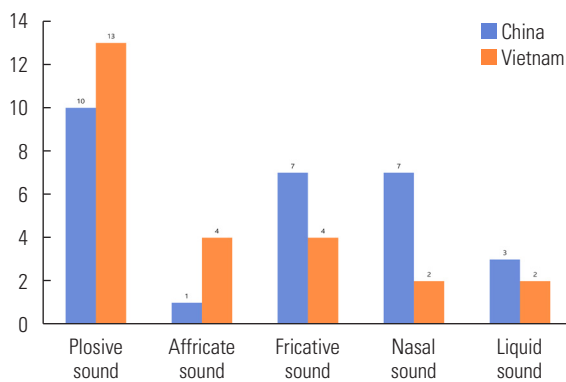
For children from multicultural families with marriage mi-

grant mothers from Vietnam, the types of phonation errors were observed in the following order: aspirated sounds (10 times), tense sounds (5 times), and lax sounds (1 time). In the case of aspirated sounds, errors were observed as follows: p/ph 5 times, kk/kh 3 times, and tʃ/tʃ<sup>h</sup> 2 times. In the case of tense sounds, errors were tɕ/tɕ 1 time and s/ss 1 time. In the case of lax sounds, an error of tt/p was observed 1 time (Figure 3).

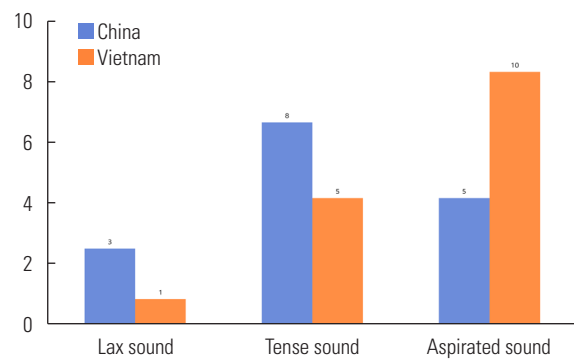
**Types of articulation errors and phoneme position error characteristics of children from multicultural families by country of origin of marriage migrant mothers**

To examine whether there were differences in types of articulation errors and phoneme positions between the groups, an analysis was conducted on the articulation error types and phoneme positions of children from multicultural families according to the country of origin of marriage migrant mothers. As a result, for children from multicultural families with marriage migrant mothers from China, the articulation errors were observed in the following order: substitution (22 times) and omission (5 times). In contrast, distortion and addition errors were not observed. In omission errors, 1 omission of word-initial /l/, 2 omissions of word-final /ŋ/, 1 omission of /k/, and 1 omission of /m/ were observed. In substitution errors: In word-initial position, errors were ss/s 3 times, s/ss 2 times, n/l 1 time, and s/h 1 time. In word-medial onset position, errors were p/ph 5 times, p/pp 2 times, k/kk 2 times, t/tɕ 1 time, and s/ss 1 time. In word-medial coda position, errors were ŋ/n 1 time, m/n 1 time, and n/ŋ 1 time. In word-final coda position, an error of ŋ/n was observed 1 time.

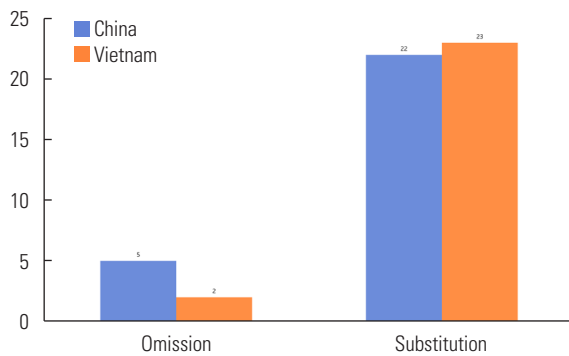
For children from multicultural families with marriage migrant mothers from Vietnam, the types of articulation errors were observed in the following order: substitution (23 times) and omission (2 times). In contrast, distortion and addition



**Figure 2.** Frequency of manner of articulation errors in children from multicultural families by country of origin of marriage migrant mothers.



**Figure 3.** Frequency of phonation type errors in children from multicultural families by country of origin of marriage migrant mothers.



**Figure 4.** Frequency of error types in children from multicultural families by country of origin of marriage migrant mothers.

errors were not observed. In omission errors, 1 omission of word-medial coda /t/ and 1 omission of word-final coda /l/ were observed. In substitution errors: In word-initial position, errors were  $t\epsilon/t\epsilon^h$  2 times,  $kk/kh$  2 times,  $n/l$  1 time,  $tt/t\epsilon$  1 time,  $tt/t$  1 time,  $s/ss$  1 time, and  $p/ph$  1 time. In word-medial onset position, errors were  $p/ph$  4 times,  $tt/s$  2 times,  $p/pp$  2 times,  $ph/pp$  1 time,  $s/ss$  1 time,  $t\epsilon/t\epsilon$  1 time, and  $kk/kh$  1 time. In word-medial coda position, errors were  $m/n$  1 time and  $n/\eta$  1 time (Figure 4).

#### Phonological variation characteristics of children from multicultural families by country of origin of marriage migrant mothers

The same assessment tool was used to conduct the test for both groups to investigate the interference effect of marriage migrant mothers' native language on the phonological variation of children from multicultural families. An independent samples t-test was conducted to examine the differences in phonological variation characteristics and error patterns between the two groups. As a result, the number of errors for children from multicultural families with marriage migrant mothers from China was 3.07 (5.94), and the number of errors for children from multicultural families with marriage migrant mothers from Vietnam was 2.26 (2.65). An independent samples t-test was conducted to examine the difference between the two groups, and the result showed  $t=0.476$  ( $p>0.638$ ), indicating no significant difference between the two groups (Table 3).

To examine the differences in phonological variation error types between the two groups, an analysis was conducted on the phonological variation errors of children from multicultural families according to the country of origin of marriage migrant mothers. As a result, for children from multicultural

**Table 3.** Analysis of differences in phonological variation errors of children from multicultural families by country of origin of marriage migrant mothers

Group	People	Mean (SD)	t
China	14	3.07 (5.94)	0.476
Vietnam	15	2.26 (2.65)	

families with marriage migrant mothers from China, the phonological variation errors were observed in the following order: laxization 8 times, deaspiration 5 times, velarization 5 times, final consonant deletion 4 times, tensification 3 times, alveolarization 3 times, velar deletion 3 times, nasal deletion 3 times, plosivization 2 times, backing of alveolar sounds 2 times, fronting of palatal sounds 1 time, plosive deletion 1 time, bilabialization 1 time, fronting of alveolar sounds 1 time, fronting of velar sounds 1 time, nasalization 1 time, bilabial deletion 1 time, and fronting of glottal sounds 1 time.

For children from multicultural families with marriage migrant mothers from Vietnam, phonological variation errors were observed in the following order: deaspiration 10 times, laxization 5 times, alveolarization 2 times, plosivization 2 times, final consonant deletion 2 times, alveolar deletion 2 times, plosive assimilation 2 times, tensification 1 time, fronting of palatal sounds 1 time, plosive deletion 1 time, bilabialization 1 time, fronting of alveolar sounds 1 time, fronting of velar sounds 1 time, nasalization 1 time, aspiration 1 time, and liquid deletion 1 time.

In both groups, errors most frequently appeared in phonation types. Laxization was observed in the Chinese group, while deaspiration was observed in the Vietnamese group. In addition, omission in the final consonant position was observed in both groups.

## DISCUSSION

This study examined the articulatory and phonological variation characteristics of children from multicultural families according to the mothers' country of origin by assessing their articulation and phonological abilities.

First, as a result of analyzing the differences according to the country of origin of marriage migrant mothers, there was no significant difference between the two groups ( $t=-0.124$ ,  $p>0.05$ ). This indicates that the articulatory abilities of the two groups are homogeneous. When analyzing by place of articulation, both groups showed the most frequent errors in the alveolar place of articulation, particularly demonstrating a

pattern of producing tense and aspirated sounds as lax sounds within the same place of articulation. When analyzing by manner of articulation, errors were most frequently observed in plosives, particularly in producing tense and aspirated sounds as lax sounds within the same manner of articulation. In particular, Vietnamese and Chinese appear to have difficulty producing accurate manners of articulation due to differences in the articulation methods of similar sounds in their native languages. As for the results of phonation type characteristics, the Chinese group produced tense sounds as lax sounds, while the Vietnamese group produced aspirated sounds as both lax and tense sounds. These results are consistent with the findings of [8], which reported that children from multicultural families have difficulty distinguishing phonation types. In particular, Vietnamese uses only unaspirated sounds in phonation types, lacking lax, tense, and aspirated sounds, which appears to cause difficulty. In the case of Chinese, although lax and aspirated sounds exist, tense sounds are absent, leading to problems in producing Korean phonation types. These findings are similar to those of [8], which reported that children from multicultural families show a high frequency of phonological variation errors related to tenseness and aspiration. As a result of the analysis of articulation error types and phoneme position error characteristics, both groups showed the most frequent errors in substitution. In particular, there was a pattern of producing lax sounds and confusing aspirated sounds with tense sounds. This finding is similar to the results of [7], which reported that children from multicultural families have difficulty distinguishing phonation types. In the study of [7], laxization, which was not observed in typically developing children, was observed in children from multicultural families. This was explained as a unique articulatory development pattern shown by children from multicultural families. These results suggest that the interference of the mother tongue of marriage migrant women influences the articulatory abilities of children from multicultural families.

Second, due to the phonological variation errors in children from multicultural families by country of origin of marriage migrant mothers, the number of errors in children from multicultural families with marriage migrant mothers from China was 3.07 (5.94). The number of errors in children from multicultural families with marriage migrant mothers from Vietnam was 2.26 (2.65). The result showed no significant difference between the two groups ( $t=0.476$ ,  $p>0.638$ ). This indicates that the phonological variation abilities of the two

groups are homogeneous. Analyzing the results of the phonological variation error types, both groups showed the most frequent errors in phonation types. In particular, laxization was observed in the Chinese group, while deaspiration was observed in the Vietnamese group. Additionally, both groups showed omission errors in the final consonant position. This finding is consistent with studies [9,10], which reported that children from multicultural families frequently show errors in the final consonant position during articulation. In particular, children from multicultural families show a high frequency of errors in final consonant deletion. According to [10], final consonant deletion is the most common error observed in children from multicultural families. This result is similar to the findings of [9], which explained that it is difficult for Vietnamese-speaking children to acquire Korean final consonant pronunciation due to the limited final consonant system in Vietnamese. Furthermore, in the case of Chinese, the final consonant system is also limited, and the types of consonants used differ from those in Korean, leading to difficulties in final consonant pronunciation. This study therefore confirmed the influence of the mother tongue interference of marriage migrant women on the articulatory and phonological abilities of children from multicultural families. Due to the mother tongue interference of marriage migrant women, it is considered that children from multicultural families are influenced by their mothers' native languages, which differ from Korean, affecting their phoneme acquisition system and suggesting that their phonological acquisition system is influenced as well.

## CONFLICT OF INTEREST

This paper is a revised and supplemented version of Seongbo Lim's master's thesis.

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