



Phonological Analysis of the Sound Production of the Voiced and Voiceless Inter-Dental Fricatives of the Grade 11 Students of TVTS Pata Annex

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ABSTRACT

With the hope to shed light on the complex interactions involving the proficiency in English pronunciation among speakers of Iloco and the hope to offer possible help in finding explanations and solutions, this study aimed to analyze the sound production of the *soft 'th' [θ]* and *hard 'th' [ð]* of the Grade 11 students of Tuao Vocational and Technical School (TVTS) Pata Annex Tuao, Cagayan during the 2ND quarter of AY 2023-2024. Using the questionnaires by Domingo (2022) with modifications and a pronunciation test tool adapted from "*Effective Speech Communication*" by Flores, C. & Lopez, E. (2008), results revealed that majority of the respondents speak Iloco as home language; that their exposure in the use of the English language is *low* at home and with their friends and *moderate* both in school and with their use of media; that they find difficulty in pronouncing the *soft 'th' sound* for both segmental and suprasegmental located in the *initial position* of words while that of the *hard 'th' sound* also for both segmental and suprasegmental in the *final position*; that the primary factor their difficulty in pronouncing *soft "th"* and *hard "th" sounds* is their *lack of phonological awareness*; that the significant difference between the level of accuracy in the production of the 'th' sounds for both isolated sense (segmental) and in group sense (segmental) is only found in their production of *hard 'th, [ð] sounds* only when sounded in the initial and medial positions; that there is a significant difference between their level of accuracy in pronouncing the *soft 'th'[θ]* and *hard 'th'[ð] sounds* found in isolated sense (segmental) and in group sense (suprasegmental) in all positions; and that only the level of accuracy in producing the *soft 'th' [θ] sound* in all locations for the suprasegmental words has a significant relationship with the home language of the respondents while there is none with their exposure of using the English language at home, with friends, in school and with the media. The results highlight the urgent need for focused interventions aimed at improving phonological awareness and ensuring precise pronunciation of English sounds, especially *soft and hard 'th' sounds* and customized to meet the unique linguistic requirements of Iloco-speaking learners incorporating a variety of teaching methods to enhance effective linguistic proficiency such as the creation of worksheets designed to strengthen the teaching and learning of *soft 'th' [θ]* and *hard 'th' [ð]* sounds.

Keywords: *Inter-Dental Fricatives, Phonological Analysis, Sound Production, and Voiced and Voiceless Sounds*

INTRODUCTION

Pronunciation is the act or manner of pronouncing syllables, words, and phrases with regard to the production of sounds and the placing of stress, intonation and articulation, this is according to Collins Dictionary. It is a fundamental part of the language learning process. It takes a lot of attention to acquire the pronunciation of a language, which not only involves uttering the correct sounds but also involves putting them together in the right combination during the flow of speech. Knowing a lot of vocabulary items is meaningless unless one can pronounce them accurately (Ali Khan, 2020).

If speakers do not correctly pronounce a word, it can be very difficult to understand them. And if they constantly mispronounce certain words, their listeners may experience difficulty to understand the words they say and eventually the ideas they want to express (Antaris and Omolu, 2019).

It is also believed that correct pronunciation leads to language proficiency and proficiency in oral communication is necessary in school and in the community. To do well in the different curriculum areas, students must speak with clarity and understanding (Marlow, 2011).

According to the ASC English (2020):

Having good pronunciation will make you more confident. You'll be able to participate in conversations, getting to know your classmates and those around you much better. In this way, having good pronunciation can even help you make friends more quickly. Speaking will no longer be a hard activity—but a fun way to improve your English while making meaningful connections with other people.

Antaris and Omolu (2019) say that there are five factors affecting students' pronunciation. These factors are: the influence of native language, lack of motivation, lack of practice, the influence of students' environment, and low self-confidence."

Moreover, according to Grace, U. (2019), because of the Filipino accent and many English sounds are not available in Filipino and other dialects of the Philippines, the English language users have difficulty in pronunciation. For instance, the pronunciation of the inter-dental

fricatives [θ and ð], making the learners have a tendency to replace those sounds with other consonants. The absence of these two sounds [θ] and [ð] causes learners to substitute them which they often substitute with either a [t] or a [d] sound.

Moreover, according to the research findings of Cabulong & Silor (2016) on Phonological Problems among Indigenous Students in Oral Communication Skills using English Language, the phonological problems encountered by the Maranao, Subanen and Higaunon pre-service education students in oral communication using English as the second language are the following: 1. They cannot correctly pronounce the vowel and consonant sounds due to lack of knowledge. 2. They lack phonological awareness. 3. They have difficulty in producing the correct sounds of English language due to their speech mechanism. 4. They lack knowledge on the functions of their speech organs. 5. Their intonation is more on accented. 6. They forgot to analyse the symbols of IPA sounds. 7. They did not experience speech improvement laboratory in English pronunciation. 8. They were not exposed to social interaction using English language.

In addition, there are two different pronunciations of [th]. One is the 'th' [θ] in throw (voiceless) and the other is the 'th' [ð] in then (voiced). To make a "th" sound, the tip of the tongue is placed between the teeth (interdental) and air forced out of the mouth (fricative). A modulation of the larynx will then determine which particular "th" sound is made.

However, the instruction of pronunciation is very important because pronunciation affects the understanding of the second language. If learners cannot utter the correct version of a word; then, they are unable to communicate properly. The instruction of pronunciation helps the learners to have a better understanding of native speakers and improves their ability to communicate easily and effectively (Ali Khan, 2020).

Anent to this, the researchers taking Field Study courses in their laboratory school, empirically have noticed in their English classes that most of their students find difficulty pronouncing the th sounds. The researchers at Tuao Vocational and Technical School (TVTS) Pata Annex studied 12 students given reading materials

with 20 words with 'th' sound, validated by a Cagayan State University-Piat Campus English teacher. All students had trouble with words with 'th' sound, except one exceptional female student who correctly pronounced words with 'th' sounds, scoring 13 out of 20. This highlighted a notable discrepancy in pronunciation abilities among the students, prompting further investigation. This necessitated the researchers to delve into this study and to identify the factors affecting the production of the inter-dental fricatives, and to look into possible remedy to curb the incorrect production of the said critical sounds. Likewise, aware of the stark reality that teaching pronunciation is one of neglected areas of language (Latorza & Ambayon, 2020) and also only few have interest in conducting a study on the 'th' sound production especially in the local context. Said premise further served as an impetus for the researchers to launch a study on this topic. Specifically, the researchers are interested to look into the reasons why it is difficult to pronounce hard 'th' and soft 'th' sounds and in what position of hard 'th' and soft 'th' sounds are commonly mispronounced. With this, the output of this study will be the creation of instructional material that will help the students master the correct pronunciation of hard 'th' and soft 'th' sounds.

MATERIALS AND METHODS

The researchers used quantitative approach to describe to describe the following: the respondents' profile in terms of home language and level of exposure in English language, the words with 'th' sounds they commonly mispronounced, the location of the soft 'th' and hard 'th' sounds they mostly mispronounced, the factors giving them difficulty in pronouncing soft 'th' and hard 'th' sounds, their level of accuracy in producing the soft 'th' and hard 'th' sounds and their difference between and relationship with their profile variables.

This study was conducted at Tuao Vocational Technical School (TVTS) Pata Annex, Pata, Tuao, Cagayan during the second quarter/first semester of academic year 2023-2024 using the entire population of the Grade 11 students.

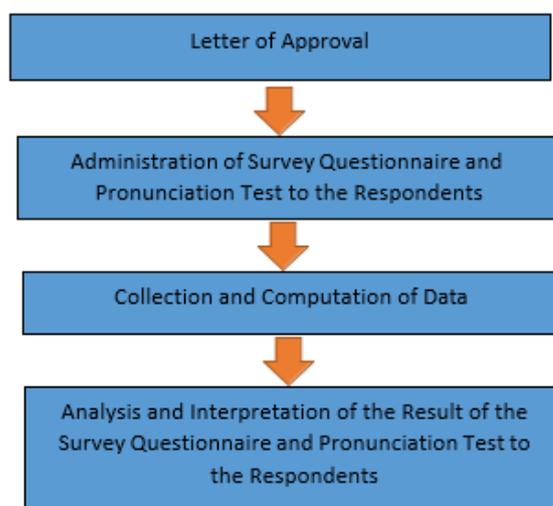
The instruments used in collecting data are as follows:

Survey questionnaire – was used to collect the respondents' profile in terms of their home language, resource materials and level of exposure in the English language. To test their level of exposure in the English language, the researchers modified the questionnaire used by Domingo (2022) in her study, "English Language Exposure of Students in Visayas State University". To answer the factors affecting the pronunciation of the respondents, the researchers used the following factors found in the study of Cabulong and Silor (2016) on Phonological Problems among Indigenous Students in Oral Communication Skills using English Language.

Pronunciation test tool – was used to determine the pronunciation accuracy of the respondents for the English words with both voiceless and voiced [th] sounds. The pronunciation test is adapted from the book "Effective Speech Communication" by Flores,

C. & Lopez, E. (2008).

Below is a flow chart showing the summary of the data gathering procedures used in the study:



The data gathered were analyzed using the following statistical tools:

Frequency, Percentage Count and Mean – were used to determine the respondents' profile in terms of home language and level of exposure

in English language. These were also used to determine the level of accuracy in the production of *soft 'th'* and *hard 'th' sounds* and further to determine the words with *'th' sounds* that are commonly mispronounced by the respondents, the location that these sounds are mostly incorrectly pronounced by the respondents, and the factors making the respondents find difficulty in pronouncing them.

t-test – was used to determine the difference between the level of accuracy in the production of soft 'th' [ə] sound found in isolated sense (segmental) and in group sense (suprasegmental)

Chi-square and Person r – were used to determine the significant relationship between the profile of the respondents and the level of accuracy in the production of *soft 'th' and hard 'th' sounds*.

The proponents observed all ethical considerations in the conduct of the study by ensuring that the respondent's identity is not published or made public during or after the study and that the confidentiality of the data gathered is always preserved in accordance with the protection of their rights.

The researchers requested permission from the necessary authorities and administration to ensure proper procedure by sending letters of request with attached consent forms, and by making sure that they were informed of their optional participation and their choice to withdraw from the study at any time they wish to.

RESULTS AND DISCUSSION

I. Profile of the Respondents

1.1. Home Language

Table 1.1 shows that majority or 50% of the respondents are Ilocanos, while 21.4 % of them speaks Filipino considered the least spoken language based on the data gathered.

Results imply that the students of Tuao Vocational High School in Pata, Tuao, Cagayan are dominantly Iloco speakers.

Table 1.1 Frequency and Percentage Distribution of the Respondents in Terms of Their Home Language

Home Language	Frequency	Percentage
Iloco	14	50.0
Itaves	8	28.6
Filipino	6	21.4
Total	28	100.0

1.2. Level of Exposure to English Language

Table 1.2.1. shows that the respondents have low exposure in using the English language at home with a category mean of 1.34. It further shows that the respondents are exposed mostly or with a weighted mean of 1.46 when they engage in activities where English is used and exposed least or with a weighted mean of 1.21 when conversing in English with their family members.

In an interview to validate their responses, they say that they are accustomed to using their home language, Iloco, and feel shy in using the English language at home. Further, some said that they have English books and resources at home, but they do not read them.

Additionally, according to blog article of Bostock (2021), he said that reading English books more and widely is critical components of developing English speaking skills or fluency in speech.

Table 1.2.1. Weighted Mean Distribution of the Respondents in Terms of Their Level of Exposure in Using the English Language at Home

Item	Weighted Mean	Descriptive Value
1. My parents talk in English.	1.39	Low
2. English is spoken at home.	1.25	Low
3. I converse in English among my family.	1.21	Low
4. I engage in activities where English is used.	1.46	Low
5. I have English books and other English resources at home.	1.39	Low
Category Mean	1.34	Low

Table 1.2.2 shows a *low* exposure of the respondents in using the English language with their friends with a *category mean of 1.52*. More specifically, it shows that are mostly exposed, with a weighted mean of 1.03, when *they watch English movies with their friends*. On the other hand, they are least exposed, with a *weighted mean of 1.32*, when *they attend social gatherings where English is spoken*.

Accordingly, these are because they and their friends live in the same barrio and similarly speak their home language, Ilocano, thus do not have the opportunity to use English in speaking with their friends.

This is contrary with the study of Domingo (2020) where student have moderately exposure to English language with friends with her Visayan respondents. Moreover, according to her, exposure with friends will give greater chances for the learners to speak and be proficient to English language.

Table 1.2.2. Weighted Mean Distribution of the Respondents in Terms of Their Level of Exposure in Using the English Language with Friends

Item	Weighted Mean	Descriptive Value
1. My friends speak in English.	1.61	Low
2. I attend social gatherings where English is spoken.	1.32	Low
3. I talk with my friends in English.	1.39	Low
4. I chat/message/email my friends in English.	1.36	Low
5. I watch English movies with my friends.	1.93	Low
Category Mean	1.52	Low

Table 1.2.3 shows the respondents' *moderate* level of exposure in using the English language in school with a *category mean of 1.81*. Their exposure is mostly when *their teachers speak with them in English* and when *they are involved in school activities that are conducted in English* with weighted means of 2.25 and 1.93 respectively. On the other hand, they are least exposed in using English when *speaking with their classmates* and *with the school encouraging students to speak in English* with weighted means of 1.54 and 1.61 respectively.

According to the study of Leong and Ahmadi (2017), teachers who encourage students to speak in English have the feeling of eagerness to speak English. Also, they have the alacrity to participate in the English classes if teachers give enough time for speaking skill in order for the students to have proficiency in the target language.

Table 1.2.3 Weighted Mean Distribution of the Respondents in Terms of Their Level of Exposure in Using English Language in School

Item	Weighted Mean	Descriptive Value
1. My teachers speak in English.	2.25	Moderate
2. The activities in my school are conducted in English.	1.93	Moderate
3. My classmates speak in English.	1.54	Low
4. My school encourages students to speak in English.	1.61	Low
5. The medium of instruction used in the classroom is English.	1.71	Moderate
Category Mean	1.81	Moderate

Table 1.2.4 shows that the respondents demonstrate a *moderate* level of exposure in using the English language on media with a *category mean of 1.84*. Their exposure is mostly when *they listen to English songs* and when *they watch movies and TV shows in English* with weighted means of 2.29 and 1.86 respectively. On the other hand, they are least exposed in using English when *they read magazines, newspapers, and books written in English* with weighted means of 1.61 described as *low* exposure.

According to study of Munir and Zalsabila (2023), they proven that audio media such like songs improves pronunciation skills effectively. The songs and other materials with audio can improve students pronunciation of English vocabulary. So, if they are frequently exposed to the items in this table; then, they can improve their sound production.

Table 1.2.4 Weighted Mean Distribution of the Respondents in Terms of Their Level of Exposure in Using English Language with the Media

Item	Weighted Mean	Descriptive Value
I chat, send and receive text messages in English.	1.75	Moderate
I browse webpages that are written in English.	1.71	Moderate
I listen to songs in English.	2.29	Moderate
I watch movies and TV shows in English.	1.86	Moderate
I read magazines, newspapers, and books written in English.	1.61	Low
Category Mean	1.84	Moderate

2. Words with Soft 'th' [θ] and hard 'th' [ð] sounds commonly mispronounced by the respondents in both segmental and suprasegmental

2.1. Segmental

Table 2.1.1. shows that most or 74.82% of the respondents are having difficulty in pronouncing words with soft 'th' [θ] sound in segmental found in the initial position while their least difficulty where 72.14% of them mispronounced the words with soft 'th' [θ] sound in segmental found in the medial position.

The table further reveals that all or 100% of them failed to correctly pronounce the word *atheist* whose 'th' [θ] sound in segmental is also found in the medial position. Along with this word that the respondents found to pronounce with difficulty are *thorough* in the initial position and *myth* in the final position.

Finally, results reveal that the words *something* in the medial position, *mouth* in the final position and *thick* in the initial position are found with least difficulty to pronounce respectively by the respondents.

Table 2.1.1. Frequency and Percentage Distribution of Words with Segmental Soft 'th' [θ] Sound Commonly Mispronounced by the Respondents

SEGMENTAL Soft 'th' [θ]								
INITIAL			MEDIAL			FINAL		
Word	F	P	Word	F	P	Word	F	P
1. thorough	26	92.86	1. atheist	28	100	1. myth	23	82.14
2. theater	25	89.29	2. enthusiasm	26	92.86	2. booth	22	78.57
3. thesis	23	82.14	3. pathos	25	89.29	3. truth	22	78.57
4. theft	22	78.57	4. strengthen	23	82.14	4. both	22	78.57
5. theorem	22	78.57	5. wrathful	23	82.14	5. beneath	21	75
6. therapeutic	22	78.57	6. toothache	22	78.57	6. month	21	75
7. therapy	22	78.57	7. pathetic	21	75	7. worth	21	75
8. theme	21	75	8. method	21	75	8. fourth	21	75
9. theology	21	75	9. wealthy	21	75	9. growth	21	75
10. thirst	21	75	10. lengthen	21	75	10. length	21	75
11. theory	20	71.43	11. bathtub	19	67.86	11. faith	21	75
12. thief	20	71.43	12. healthy	19	67.86	12. oath	20	71.43
13. think	20	71.43	13. rethink	18	64.29	13. path	20	71.43
14. thumb	20	71.43	14. youthful	18	64.29	14. cloth	20	71.43
15. thunder	20	71.43	15. birthday	18	64.29	15. warmth	19	67.86
16. thermal	19	67.86	16. toothless	17	60.71	16. north	19	67.86
17. thing	19	67.86	17. truthful	17	60.71	17. earth	19	67.86
6. warmth	19	67.86	6. warmth	19	67.86	18. south	19	67.86
19. throat	19	67.86	19. nothing	16	57.14	19. breath	18	64.29
20. thick	18	64.29	20. something	15	53.57	20. mouth	17	60.71
Mean	20.95	74.82	Mean	20.2	72.14	Mean	20.35	72.68

Table 2.1.2. shows that most or 73.75% of the respondents are having difficulty in pronouncing words with hard 'th' [ð] sound in segmental found in the in the final position while their least difficulty where 50.36% of them mispronounced the words with hard 'th' [ð] sound in segmental are found in the initial position.

The table further reveals that the word *lathe* with 'th' [ð] sound in segmental in the final position was pronounced with most difficulty for 96.86% of the respondents failed to correctly pronounce it. The words *thou* in the initial and *leather* in the medial are also the words that the respondents found to pronounce with difficulty.

Finally, results reveal that the words *other* in the medial position, *than* in the initial position, and *with* in the final position are found with least difficulty to pronounce respectively by the respondents.

Table 2.1.2. Frequency and Percentage Distribution of Words with Segmental Hard 'th' [ð] Sound Commonly Mispronounced by the Respondents

2.1. Suprasegmental

SEGMENTAL Hard 'th' [ð]								
INITIAL			MEDIAL			FINAL		
Word	F	P	Word	F	P	Word	F	P
1. thou	23	82.14	1. leather	22	78.57	1. lathe	26	92.86
2. thereafter	21	75	2. whether	21	75	2. wreathe	25	89.29
3. therein	20	71.43	3. leather	20	71.43	3. bathe	24	85.71
4. thyself	19	67.86	4. worthy	19	67.86	4. unclothe	24	85.71
5. they'll	18	64.29	5. rhythm	19	67.86	5. scythe	24	85.71
6. thence	18	64.29	6. although	18	64.29	6. breathe	23	82.14
7. theirs	15	53.57	7. clothes	17	60.71	7. scathe	23	82.14
8. their	15	53.57	8. nevertheless	16	57.14	8. blithe	22	78.57
9. this	14	50	9. feather	16	57.14	9. soothe	22	78.57
10. these	14	50	10. wither	16	57.14	10. broth	21	75
11. there	14	50	11. rather	15	53.57	11. tithe	20	71.43
12. these	13	46.43	12. weather	15	53.57	12. bequeath	20	71.43
13. they're	12	42.86	13. further	14	50	13. loathe	20	71.43
14. them	11	39.29	14. bother	14	50	14. width	19	67.86
15. they	10	35.71	15. gather	13	46.43	15. teethe	19	67.86
16. those	10	35.71	16. neither	13	46.43	16. writhe	18	64.29
17. the	10	35.71	17. either	13	46.43	17. clothe	18	64.29
18. therefore	9	32.14	18. father	6	21.43	18. wealth	18	64.29
19. that	8	28.57	19. mother	4	14.29	19. smooth	16	57.14
20. than	8	28.57	20. other	4	14.29	20. with	11	39.29
Mean	14.1	50.36	Mean	14.75	52.68	Mean	20.65	73.75

Table 2.2.1. shows that most or 73.75% of the respondents are having difficulty in pronouncing words with soft 'th' [θ] sounds in suprasegmental found in the initial position while their least difficulty where 70.54% of them mispronounced the words with soft 'th' [θ] sounds in suprasegmental found in the final position.

The table further reveals that the words *theft* and *toothache* with soft 'th' [θ] sounds in suprasegmental in the initial and medial positions were pronounced with most difficulty for a similar 92.86% of the respondents failed to correctly pronounce them. The word *breath* in the final position is the word that the respondents also found to pronounce with difficulty.

Finally, results reveal that the words *something* in the medial position, *thief* in the initial position, and *both* in the final position are found with least difficulty to pronounce respectively by the respondents.

Table 2.2.1. Words having Soft 'th' [θ] Sound Commonly Mispronounced by the Respondents (Suprasegmental)

SUPRASEGMENTAL Soft 'th' [θ]								
Initial			Medial			Final		
Word	F	P	Word	F	P	Word	F	P
1. theft	26	92.86	1. toothache	26	92.86	1. breath	24	85.71
2. thorough	24	85.71	2. pathos	25	89.29	2. myth	23	82.14
3. theater	24	85.71	3. enthusiasm	23	82.14	3. beneath	21	75
4. therapeutic	23	82.14	4. lengthen	23	82.14	4. booth	21	75
5. throat	23	82.14	5. strengthen	23	82.14	5. oath	21	75
6. thesis	23	82.14	6. method	21	75	6. fourth	21	75
7. thirst	22	78.57	7. wealthy	21	75	7. worth	20	71.43
8. therapy	22	78.57	8. bathtub	21	75	8. earth	20	71.43
9. theme	22	78.57	9. youthful	21	75	9. truth	20	71.43
10. thermal	21	75	10. wealthy	20	71.43	10. faith	20	71.43
11. theorem	20	71.43	11. birthday	20	71.43	11. length	18	64.29
12. think	20	71.43	12. healthy	20	71.43	12. north	19	67.86
13. theory	20	71.43	13. rethink	20	71.43	13. mouth	19	67.86
14. thumb	20	71.43	14. anything	19	67.86	14. warmth	19	67.86
15. theology	19	67.86	15. atheist	18	64.29	15. month	19	67.86
16. thunder	19	67.86	16. truthful	17	60.71	16. path	19	67.86
17. throw	18	64.29	17. toothless	17	60.71	17. south	19	67.86
18. thick	17	60.71	18. pathetic	17	60.71	18. growth	18	64.29
19. thing	15	53.57	19. nothing	16	57.14	19. cloth	17	60.71
20. thief	15	53.57	20. something	12	42.86	20. both	17	60.71
Mean	20.65	73.75	Mean	20	71.43	Mean	19.75	70.54

Table 2.2.2. shows that most or 65.71% of the respondents are having difficulty in pronouncing words with hard 'th' [ð] sound in segmental found in the in the final position while their least difficulty where 36.79% of them mispronounced the words with hard 'th' [ð] sound in segmental are found in the initial position.

The table further reveals that the word *lathe* with hard 'th' [ð] sound in segmental in the final position was pronounced with most difficulty for 92.86% of the respondents failed to correctly pronounce it. The words *thou* in the initial and *leather* in the medial are also the words that the respondents found to pronounce with difficulty.

Finally, results reveal that the words *that* in the initial position, *father* in the medial position, and *with* in the final position are found with least difficulty to pronounce respectively by the respondents.

Table 2.2.2. Words with Hard 'th' [ð] Sound Commonly Mispronounced by the Respondents (Suprasegmental)

SUPRASEGMENTAL Hard 'th' [ð]								
Initial			Medial			Final		
Word	F	P	Word	F	P	Word	F	P
1. thou	23	82.14	1. leather	18	64.29	1. lathe	26	92.86
2. thee	18	64.29	2. although	17	60.71	2. wreath	25	89.29
3. thence	18	64.29	3. gather	17	60.71	3. bathe	24	85.71
4. theirs	15	53.57	4. worthy	17	60.71	4. loathe	20	71.43
5. there	14	50	5. clothes	16	57.14	5. breathe	20	71.43
6. thyself	14	50	6. leather	16	57.14	6. tithe	20	71.43
7. therein	14	50	7. wither	16	57.14	7. scathe	20	71.43
8. thereafter	14	50	8. bother	16	57.14	8. blithe	20	71.43
9. these	14	50	9. feather	15	53.57	9. soothe	19	67.86
10. they're	12	42.86	10. further	15	53.57	10. broth	19	67.86
11. they'll	10	35.71	11. whether	15	53.57	11. scythe	18	64.29
12. therefore	9	32.14	12. rather	14	50	12. teethe	18	64.29
13. their	7	25	13. rhythm	14	50	13. unclot	18	64.29
14. those	6	21.43	14. nevertheless	13	46.43	14. bequeath	16	57.14
15. them	5	17.86	15. either	13	46.43	15. clothe	16	57.14
16. they	5	17.86	16. weather	12	42.86	16. writhe	15	53.57
17. this	3	10.71	17. neither	11	39.29	17. width	15	53.57
18. than	3	10.71	18. other	10	35.71	18. wealth	15	53.57
19. the	1	3.57	19. mother	8	28.57	19. smooth	12	42.86
20. that	1	3.57	20. father	4	14.29	20. with	12	42.86
Mean	10.3	36.79	Mean	13.85	49.46	Mean	18.4	65.71

3. Location of Soft 'th' [θ] and Hard 'th' [ð] Sounds That Most of the Respondents Incorrectly Pronounced

Table 3.1. shows that most of the respondents find difficulty in pronouncing the soft 'th' sounds in the initial position for both segmental and suprasegmental while their least difficulty is on the final position also both for both segmental and suprasegmental.

Table 3.1 Frequency and Percentage Distribution of the Location of the Soft 'th' [θ] Sound Most of the Respondents Incorrectly Pronounced

Location of Soft 'th' [θ]	Segmental		Suprasegmental	
	Frequency	Percentage	Frequency	Percentage
Initial	20.95	74.82	20.65	73.75
Medial	20.20	72.14	20	71.43
Final	20.35	72.68	19.75	70.54

3.2. The table shows that majority of the respondents incorrectly pronounced hard 'th' [ð] sound particularly in final position in both segmental and suprasegmental while they least incorrectly pronounce the said sounds in the initial position.

Further, results show that the respondents find difficulty in pronouncing the hard ‘th’ [ð] sound in with segmental sounds over those in the suprasegmentals.

According to the respondents during the interview, reserchers found out that their reason is that they don’t know its correct pronunciations since they do not usually encountered those words in reading and in their daily life conversation.

Table 3.2. Location of the Hard ‘th’ Sound where most of the Respondents Incorrectly Pronounced

Location of Hard ‘th’	Segmental		Suprasegmental	
	Frequency	Percentage	Frequency	Percentage
Initial	14.1	50.36	10.3	36.79
Medial	14.75	52.68	13.85	49.46
Final	20.65	73.75	18.4	65.71

4. Factors in the Respondents’ Difficulty in Pronouncing the Soft ‘th’[θ] and Hard ‘th’ [ð] Sounds

Table 4. presents that all or 100% of the respondents consider lack of phonological awareness as the highest factor contributing to their difficulty of the in pronouncing soft ‘th’ and hard ‘th’ [ð] sounds followed by 92.86% of them forgetting to analyze the symbols of IPA sounds. These said factors are also the causes of mispronunciation found in the study of Agung et al. (2021).

On the other hand, the table shows that the respondents least considered having difficulty in producing the correct sounds of English language due to speech mechanism and not experiencing speech improvement in speech laboratory for English pronunciation as their least factor in pronouncing soft ‘th’ and hard ‘th’ [ð] sounds.

Table 4. Frequency and Percentage Distribution of the Factors in the Respondents Difficulty in Pronouncing Soft ‘th’[θ] and Hard ‘th’ [ð] Sounds

Factor	Frequency (N = 28)	Percentage	Rank
1. Lack of phonological awareness	28	100	1
2. Has difficulty in producing the correct sounds of English language due to speech mechanism.	0	0	6
3. Lack of knowledge on the functions of speech organs	21	75	4
4. Forgot to analyze the symbols of IPA sounds	26	92.86	2
5. Did not experience speech improvement in speech laboratory for English pronunciation	19	67.86	5
6. Not exposed to social interaction using English language	24	85.71	3

5. Difference Between the Level of Accuracy in the Production of Soft ‘th’ [θ] Sound Found in Isolated Sense (segmental) and in Group Sense (Suprasegmental)

The table 5.1 shows that there is no significant difference between the level of accuracy in the production of soft ‘th’ sounds found in isolated sense (segmental) and in group sense (suprasegmental) in all locations of the soft ‘th’ sounds. Hence, the hypothesis of the study that there is no significant relationship between the level of accuracy in the production of soft ‘th’ sounds found in isolated sense (segmental) and in group sense (suprasegmental) is accepted. This means that the level of accuracy in the production of the said interdental fricative sounds is not being affected whether the words having ‘th’ sounds are in the segmental or suprasegmental sense.

Table 5.1. Analysis of the Difference between the Level of Accuracy in the Pronunciation of Soft ‘th’ [θ] Sounds Found in Isolated Sense (Segmental) and in Group Sense (Suprasegmental)

Location	Mean	t-value	p-value	Decision @ α= 5%
Initial				
Segmental	5.04	-0.408	0.687	Accept Ho
Suprasegmental	5.25			
Medial				
Segmental	5.57	-0.354	0.726	Accept Ho
Suprasegmental	5.71			
Final				
Segmental	5.46	-0.886	0.383	Accept Ho
Suprasegmental	5.89			

The table 5.2 shows that there is a significant difference between the level of accuracy in the production of *hard ‘th’* found in the isolated sense (segmental) and in group sense (suprasegmental) in the initial and final positions. This means that the respondents find more difficulty in pronouncing *hard ‘th’ sound* in the suprasegmental sense than in the

segmental sense because in the suprasegmental which is in group sense has other prosodic features to consider like stressing, blending, pausing, juncture, intonation that may interfere the accuracy of sound production of the *hard 'th' sounds*, unlike in segmental, they only focus on the individual production of each sound in a word, and no other phonological features to consider, and they cannot prepare immediately the speech organs involve in the production of the *hard 'th' sounds* for its point of articulation and manner of articulation in the initial and final positions (Flores, C. & Lopez, E. (2008).

On the other hand, with respect to the production of *hard 'th' sound* in the medial position, the data show that it has no bearing, meaning there is no significant difference between the level of accuracy in the production of *hard 'th' sounds* in both segmental and suprasegmental. The reason revealed in their interview is that they have short moment to prepare their speech organs for the point and manner of articulation of the *hard 'th' sound* in the medial position.

Table 5.2. Analysis of the Difference between the Level of Accuracy in the Pronunciation of Hard 'th' [ð] Sounds Found in Isolated Sense (Segmental) and in Group Sense (Suprasegmental)

Location	Mean	t-value	p-value	Decision @ α= 5%
<i>Initial</i>				
Segmental	9.93	-3.968	0.000	Reject Ho
Suprasegmental	12.64			
<i>Medial</i>				
Segmental	9.46	-.994	0.329	Accept Ho
Suprasegmental	10.11			
<i>Final</i>				
Segmental	5.25	-3.866	0.001	Reject Ho
Suprasegmental	6.86			

Table 5. 3. shows a significant difference between the level of accuracy in the production of soft 'th'[θ] and hard 'th'[ð] sounds found in isolated sense (segmental) and in group sense (suprasegmental) in all positions of the 'th' [θ] sounds which imply that he respondents pronounced the words with hard 'th' [ð] sounds with higher level of accuracy than the words with soft 'th' [θ] sounds.

In the interview with the respondents of this study, most of them said that the words with hard 'th' [ð] sounds are the words they commonly encounter that is why they pronounce them with higher level of accuracy. Therefore, constant exposure to vocabulary text which includes its pronunciation has a big impact on the level of accuracy in the production of sounds.

The finding of this study is contrary to the result of the study conducted by Saavedra (2022) where 59.5 percent or majority (19) of the respondents pronounced the words with soft 'th' [θ] sound excellently than the words with hard 'th' [ð] sound.

According to the respondents, most of them say that the words with hard 'th' sounds in the given pronunciation test are ones they often encounter and inside and outside the class.

Table 5.3. Analysis of the Difference between the Level of Accuracy in the Pronunciation of Soft 'th' [θ] and Hard 'th' [ð] Sounds Found in Isolated Sense (Segmental) and in Group Sense (Suprasegmental)

Location	Mean	t-value	p-value	Decision @ α= 5%
<i>Segmental</i>				
Soft th	16.07	-3.462	.002	Reject Ho
Hard th	24.64			
<i>Suprasegmental</i>				
Soft th	16.86	-4.224	.000	Reject Ho
Hard th	29.61			

6. Relationship between the Profile of the Respondents and Level of Accuracy in the Production of Soft 'th' [θ] and Hard 'th' [ð] Sounds

Table 6. 1. shows that only the level of accuracy in producing the soft 'th' [θ] sounds in all positions for the suprasegmental words has a relationship with the home language of the respondents specifically supported by the p-value of 0.032 and rejecting the hypothesis. This result is supported by the findings of Antaris and Omolu (2019) titled "Factors Affecting Pronunciation Difficulties of 8th Grade Students of MTSN Palu Barat", where they found that the native or home language has

an effect on the level of accuracy in the production of their second language sound. Seventy-six (76) percent of their respondents agreed that their native language or home language has influenced the pronunciation of the English words.

However, their level of accuracy in producing the segmental soft 'th' [θ] and hard th' [ð] sounds in all positions and the suprasegmental hard 'th' [ð] sound showed no significant relationship between the home language of the respondents thus the acceptance of the hypothesis.

Table 6.1. Analysis of the Relationship between the Home Language of Respondents and their Level of Accuracy in the Pronunciation of Soft 'th' [θ] and Hard 'th' [ð] Sounds

Location	χ^2 - Value	p-value	Decision @ $\alpha=5\%$
Segmental Soft 'th' [θ]	10.458	0.234	Accept Ho
Segmental Hard 'th' [ð]	7.053	0.531	Accept Ho
Suprasegmental Soft 'th' [θ]	16.844	0.032	Reject Ho
Suprasegmental Hard 'th' [ð]	4.611	.798	Accept Ho

As can be gleaned on table 6.2., the respondents' exposure in using the English Language at Home has no bearing in the level of accuracy in the production of soft 'th' [θ] and hard Hard 'th' [ð] in both segmental and suprasegmental in all locations of the 'th' sounds making the hypotheses acceptable. This finding is contrary to the finding of Sabata et al. (2023) that the mother tongue is one of the causes of the mispronunciations particularly the 'th' sounds because they are not found in their home language.

Table 6.2. Analysis of the Relationship between the Respondents' Exposure in Using English Language at Home and Their Level of Accuracy in the Production of Soft 'th' [θ] and Hard 'th' [ð] Sounds

Location	r - Value	p-value	Decision @ $\alpha=5\%$
Segmental Soft 'th' [θ]	-0.032	0.873	Accept Ho
Segmental Hard 'th' [ð]	-0.132	0.504	Accept Ho
Suprasegmental Soft 'th' [θ]	-0.011	0.954	Accept Ho
Suprasegmental Hard 'th' [ð]	-0.204	0.298	Accept Ho

The table 6.3. shows that the respondents' exposure in using English Language with friends has also no effect in the production of

soft 'th' [θ] and Hard 'th' [ð] sounds in both segmental and suprasegmental in all locations of the 'th' sounds. This makes the hypotheses acceptable.

Table 6.3. Analysis of the Relationship between the Respondents' Exposure in Using English Language with Friends and their Level of Accuracy in the Production of Soft 'th' [θ] and Hard 'th' [ð] Sounds

Location	r - Value	p-value	Decision @ $\alpha=5\%$
Segmental - Soft th	-0.162	0.410	Accept Ho
Segmental - Hard th	-0.0163	0.407	Accept Ho
Suprasegmental - Soft th	-0.145	0.460	Accept Ho
Suprasegmental - Hard th	-0.119	0.546	Accept Ho

Table 6.4. presents the respondents' exposure in using English Language in school and their level of accuracy in the production of soft 'th' [θ] and hard 'th' [ð] sounds having no bearing in both segmental and suprasegmental in all locations of the 'th' sounds thus making the hypotheses acceptable.

Table 6.4. Analysis of the Relationship between the Respondents' Exposure in Using English Language in School and Their Level of Accuracy in the Production of Soft 'th' [θ] and Hard 'th' [ð] Sounds

Location	r - Value	p-value	Decision @ $\alpha=5\%$
Segmental- Soft th	-0.147	0.454	Accept Ho
Segmental- Hard th	-0.250	0.199	Accept Ho
Suprasegmental-Soft th	-0.125	0.526	Accept Ho
Suprasegmental- Hard th	-0.212	0.280	Accept Ho

Table 6.5. shows the respondents' exposure in using English Language with media also having no relationship with their level of accuracy in the production of the two inter-dental fricative sounds both in isolated and in group sense, and be it in the initial, medial and final positions. This has contributed to the acceptance of null hypotheses.

Table 6.5. Analysis of the Relationship between the Respondents' Exposure in Using English Language with Media and Their Level of Accuracy in the Production of Soft 'th' [θ] and Hard 'th' [ð] Sounds

Location	r - Value	p-value	Decision @ $\alpha=5\%$
Segmental- Soft th	-0.267	0.169	Accept Ho
Segmental- Hard th	-0.195	0.319	Accept Ho
Suprasegmental-Soft th	-0.249	0.201	Accept Ho
Suprasegmental- Hard th	-0.193	0.325	Accept Ho

7. Proposed Instructional Material Designed to Help Teachers Improve the Pronunciation of Soft 'Th' [θ] and Hard 'Th' [ð] Sounds

CONCLUSIONS

This research illuminates the intricate dynamics surrounding English language pronunciation proficiency among Ilocos-speaking individuals. Despite a predominant use of Ilocos as their home language, respondents reported varying degrees of exposure to English across different social contexts but such exposure do not influence their 'th' production.

A notable finding emerges from the prevalence of mispronunciations in both *soft and hard "th" sounds*, spanning various lexical positions. This mispronunciation pattern underscores a fundamental challenge rooted in a lack of phonological awareness and lack of exposure in the use of the English language, significantly impeding respondents' ability to accurately articulate these sounds.

The findings underscore the imperative for targeted interventions aimed at enhancing phonological awareness and promoting accurate pronunciation of English sounds, particularly *soft 'th' and hard 'th' sounds* tailored to address the specific linguistic needs of Ilocos-speaking learners and encompassing a range of instructional strategies to foster linguistic competence.

RECOMMENDATIONS

Based on the findings and conclusions drawn from this study, the following recommendations are made:

1. Encourage initiatives to boost English language exposure at home and social settings through activities conducted by language clubs, English-speaking groups, or language exchange programs especially focused on the soft 'th' sound.

2. Develop and implement phonological awareness programs in school, specifically targeting challenges identified, focusing on distinguishing between *soft "th"* and *hard "th"* sounds in various positions within words. Additionally, address the integration of more interactive and immersive English language learning methods in school curricula and media platforms to increase exposure and proficiency.
3. The Tuao Vocational and Technical School, Pata Annex may consider using the worksheet that is created as an output of this study to offer targeted practice for words with *soft "th"* and *hard "th"* sounds, including pronunciation guides and exercises to improve accuracy. This worksheet can also be used for different English lessons and can be used in their project "Read to Rise" and DepEd's program "Catch-up Fridays".
4. Encourage further research and collaboration among linguists, educators, and language experts to explore effective strategies for addressing pronunciation challenges in diverse linguistic contexts.

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