IMPROVING THE ABILITIES IN ENGLISH PRONUNCIATION OF MATHAYOMSUKSA 1 (7th GRADE) STUDENTS BY USING MULTIMEDIA

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บทคัดย่อ

การวิจัยครั้งนี้มีวัตถุประสงค์เพื่อ (1) เพื่อพัฒนาสื่อมัลติมีเดียการออกเสียงภาษาอังกฤษ สำหรับนักเรียนชั้นมัธยมศึกษาปีที่ 1 ที่มีประสิทธิภาพตามเกณฑ์ 80/80 (2) เพื่อเปรียบเทียบ ความสามารถในการออกเสียงภาษาอังกฤษ ก่อนและหลังการเรียนรู้โดยใช้สื่อมัลติมีเดียการออกเสียง ภาษาอังกฤษ สำหรับนักเรียนชั้นมัธยมศึกษาปีที่ 1 และ (3) เพื่อศึกษาความพึงพอใจของนักเรียน ที่เรียนโดยใช้สื่อมัลติมีเดียการออกเสียงภาษาอังกฤษ ประชากรในการวิจัยคือ นักเรียนชั้นมัธยมศึกษาปีที่ 1 ที่กำลังศึกษาในภาคเรียนที่ 1 ปีการศึกษา 2560 โรงเรียนบ้านหนองป้าน อำเภอนาดูน จังหวัดมหาสารคาม เครื่องมือที่ใช้ในการวิจัยในครั้งนี้คือ (1) แผนการจัดการเรียนรู้ จำนวน 7 แผน (2) สื่อมัลติมีเดียการออกเสียง ภาษาอังกฤษ (3) แบบทดสอบวัดผลสัมฤทธิ์หลังการเรียน (4) แบบสอบถามความพึงพอใจของ นักเรียนที่เรียนโดยใช้สื่อมัลติมีเดียการออกเสียงภาษาอังกฤษ วิเคราะห์ข้อมูลโดยใช้ค่าเฉลี่ย ส่วนเบี่ยงเบนมาตรฐาน และการทดสอบสมมติฐานการวิจัยค่าที

ผลการวิจัยพบว่า (1) ประสิทธิภาพของสื่อมัลติมีเดียการออกเสียงภาษาอังกฤษ สำหรับ นักเรียนชั้นมัธยมศึกษาปีที่ 1 ที่ผู้วิจัยสร้างขึ้นมีค่าเท่ากับ 89.03/89.60 ซึ่งสูงกว่าเกณฑ์ที่ตั้งไว้ (2) ผลการเปรียบเทียบความสามารถในการออกเสียงภาษาอังกฤษของนักเรียนชั้นมัธยมศึกษาปีที่ 1 หลังจากเรียนด้วยสื่อมัลติมีเดียการออกเสียงภาษาอังกฤษ ก่อนเรียนและหลังเรียน พบว่า คะแนน ค่าเฉลี่ยหลังเรียนสูงกว่าคะแนนก่อนเรียน แตกต่างกันอย่างมีนัยสำคัญทางสถิติที่ระดับ 0.5 และ (3) นักเรียนมีความพึงพอใจต่อการเรียนรู้ด้วยสื่อมัลติมีเดียการออกเสียงภาษาอังกฤษ สำหรับ นักเรียนชั้นมัธยมศึกษาปีที่ 1 โดยรวมในระดับมาก โดยมีค่าเฉลี่ย (X)= 4.40 และส่วนเบี่ยงเบน มาตรฐาน (S.D.)= 0.19

คำสำคัญ: การออกเสียงภาษาอังกฤษ, สื่อมัลติมีเดีย



_อาจารย์ที่ปรึกษาวิทยานิพนธ์หลัก

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ABSTRACT

The purposes of this study were; (1) To develop an English pronunciation multimedia for Mathayomsuksa I students, to met the efficiency criterion of the 80/80; (2) to compare English pronunciation abilities of Mathayomsuksa I students before and after the learning using the English pronunciation multimedia; (3) to survey the students' satisfaction with learning using the English pronunciation multimedia for Mathayomsuksa I students.

The sample of this study consisted of 25 Mathayomsuksa I students in Ban Nongpan School, Na Dun District, Maha Sarakham Province who enrolled in Semester 1 of Year 2017, in Ban Nongpan School, Na Dun District, Maha Sarakham Province, selected by using the purposive sampling technique. The instruments for data collection in this research consisted of 7 learning plans, the English pronunciation multimedia for Mathayomsuksa 1 students, an achievement test and a satisfaction questionnaire. The statistics used for data analyses were mean, standard deviation and dependent sample t-test for testing hypothesis. The results of the research were as follows; (1) the efficiency of the multimedia to improve English pronunciation skills for Mathayomsuksa I students, developed by the researcher, was 89.03/89.60, which was higher than the defined criterion; (2) The English pronunciation abilities of Mathayomsuksa I students was higher than before learning using the English pronunciation multimedia with at the 0.05 level of significance and corresponding with the hypothesis; and (3) the satisfaction of Mathayomsuksa I students with a students with a students with the learning using the English pronunciation multimedia for Mathayomsuksa I students, showed the average satisfaction score of 4.40 at high level and standard deviation of 0.19, indicating that the students were highly satisfied.

Keywords: pronunciation, multimedia

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Mrs.Rattanakorn Settemi

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CHAPTER 1

INTRODUCTION

1.1 Background of the Study

In the world today, learning foreign languages is important and necessary for daily life, as it is an important tool for communication, education, acquiring knowledge, work and entertainment. Developing understanding on diverse cultures and visions of the world community leads to have friendship cooperation with other countries. It also helps students understanding themselves and others better, as well as understanding differences of languages and cultures, traditions, thoughts, societies, economies, politics and governments. Moreover, students have good attitude towards using foreign languages and can use foreign languages for communication, and have ability to access various knowledge easier and wider, and have vision in living their lives (Office of the Basic Education Commission, 2008, p. 1)

From the importance of foreign languages, the Ministry of Education had set a requirement for teaching English as a foreign language for all levels to build human foundation and build capacity in creative works and thinking. It is a groundwork and preparation for learning of new young generation in line with information age society, helping students a long and wide vision. Besides that, students understand and be able to apply English principles as basic learning: listening, speaking, reading and writing skills, leading to the improvement of learning with sustainably and effectively. It is anticipated that when students have learned English continuously since they were in primary school till secondary school, they would have knowledge and ability to receive and communicate message, could develop culture in using language to express their thoughts, knowledge, understanding, feelings and views to exchange information and experience beneficially for improvement in self-society (Office of the Basic Education Commission, 2008).

As mentioned above, Thai education policy have recognized the importance of English instruction in schools. Students must have listening, speaking, reading and writing skills, and be able to use English to communicate effectively. In language instruction, students need to learn various elements of language, such as, vocabularies, grammar, reading, writing and speaking. However, the first important thing that makes students succeed in learning English and be able to use English in communicating with people in the world clearly and correctly, is having skills in correct pronunciation which support students to achieve communication effectively. Many researchers had conducted studies on pronunciation, Torut (1997) states that in learning a foreign language, knowing only vocabularies and sentence structures is not enough. If students are unable to combine those vocabularies into sentences and speak out in a way that a native speaker could understand, implying that they are unable to communicate the language. Particularly English words, if they are pronounced incorrectly, a native speaker would not understand or misunderstand. Pronunciation is important and essential, because if the students pronounce incorrectly from the beginning, it would be difficult to make correction (Derwing and Rossiter, 2002, cited in Binturki, 2008) Correct pronunciation ensures that the message is communicated effectively. Fries (1970) states that in learning any language, the students must first learn how to pronounce the language correctly. Ellis (1997) states that knowing grammars and vocabularies are important for students but they need to pronounce the structure or those vocabularies correctly. Moreover, good pronunciation is the first goal of the students. Gilakjani (2011) points out that if the speakers have unacceptable pronunciation, their words will not be understandable and makes them unable to communicate successfully. According to Garrigues (1999), the fundamental effective voice communication is a good pronunciation. If a person speak clearly and accurately, the audience will understand easily what the speaker is trying to express

On the other hand, many cases of misunderstanding might occur, if some words are pronounced or stressed incorrectly. Therefore, pronunciation is one of the basic requirements for students' proficiency, and one of the most important qualifications for language teaching. Good pronunciation leads to learning, while poor pronunciation would causes difficulties in learning languages (Pourhosein Gilakjani, 2012) Nevertheless, Thais have problems with English pronunciation due to the difference in sound systems between Thai and English languages. Therefore, to pronounce correctly like native speaker and to prevent them from fault pronunciation, students should be taught with correct pronunciation and from the basic since the early childhood or primary schools (Mekwong, 2004, p. 2)

In addition, many researchers and linguists had studied on the pronunciation of students in Thailand (Lakhawatana, 1969; Malarak, 1998 and Mano-im, 1999), and found that Thai students pronounced English by using Thai consonants. In general, students faced difficulties in speaking English, especially with pronunciation because the sound system of Thai language was totally different from that of English. Nathong, W. (2006) stated that problems of Thais when learning fricatives in English, on initial consonants was that they might apply similar Thai sounds, for example, the words "van" /væn/, pronounced as /w æn/, that is, applying the /w/ sound instead of the /v/ sound in English pronunciation. Thai people often pronounced "That" $\delta \approx 10^{-10}$ /ð $\approx 10^{-10}$ /ð $\approx 10^{-10}$ /ð/ sound in "That" because the $\delta /$ sound is a resonant with voiced interdental fricative type that does not exist in Thai phonological system. Most Thais, hence, applied a similar sound /d/ in Thai language in pronouncing the /ð/ sound. Therefore, Thais pronounced "That" as /dæt/ instead of the /ðæt/ sound, which is the correct pronunciation. Sangtanoo and Pongsadhat (2008) indicated the phonemes in English fricative consonants that were problematic for Thai students including phonemes /v, \mathbf{J} , $\mathbf{\theta}$, $\mathbf{\delta}$, \mathbf{J} , z/. That is, the / v / sound was often replaced with / w /, such as, the words "vest" and "west". The / z / sound

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was often replaced with / s /, such as, the words "rice" and "rise", of which Thai students pronounced the same. In addition, Fredrickson (2015) stated that the /r/ sound as an initial consonant and the /l/ sound as a final consonant, were also problematic for Thai people. Singhapreecha, P. (1990) stated that most Thai people had difficulties in pronouncing / l / and / r /, as both phonemes have different points of articulation and different phonation patterns from that of Thai language

From the author's experience in English instruction of Mathayomsuksa 1 students in Ban Nongpan School, Na Dun District, Maha Sarakham Province, the affricate consonants / f// d / , tap or flap consonant /r/, and lateral consonant /l/ in English. The students could not distinguish the sounds / \int / from / \oint /, for example, the words "ship" and "chip". The students would pronounce / s / instead of / 3 /, such as, the word "vision". In addition, the students were confused in pronouncing /l/ and /r/ at the beginning of the syllable, for example, the words "rice" would be pronounced "lice", and the word "right" would be pronounced "light". Such problems corresponded with Chaipa, K. (2005, pp. 46-47), who indicated the problems in English consonant pronunciation, which highlighted the difficulties in pronunciation of single consonants at the beginning of syllables. There are 21 single consonants in Thai language. However, when comparing to English, there are additional 9 sounds that do not exist in Thai language, namely, /g/, /v/, / θ /, /ð/, /z/, /ʃ/, /3/, /d/, /r/. The /g/ phoneme is a consonant that sounds like "kor" for Thais. Despite the facts that the "kor" sound in Thai language is non-resonant, whereas the /g/ sound in English is resonant. The /v/, / θ /, / δ /,/ z/,/ʃ/, /3/sounds are fricative consonants, that are prevalent in English, while there are only 3 sounds, namely, [f, s, h] are found in Thai language. The /03/ sound is pronounced similarly to the /t/ sound, but the /t/sound is non-resonant. And the /r/ sound is pronounced as the /l/ sound.

In this research, the author aimed to develop an English pronunciation multimedia to improve English pronunciation for phonemes /f /, / v /, / θ /, / δ /, / s /, / z /, / \int /, /3 /, /ds /, /df /, / U and / r/ for Mathayomsuksa I students in Ban Nongpan School, Na Dun District, Maha Sarakham Province. This research study also included the assessment on the effectiveness of the English pronunciation multimedia, and the students' satisfaction with learning using such pronunciation multimedia.

The use of multimedia in teaching and learning is not only able to maintain student's interest but also able to make them enjoy learning. Furthermore, Cairncross and Mannion (2001) found that multimedia had the potential to create high quality learning environments. The key elements of multiple media, user control over the delivery of information and interactivity can be used to enhance the learning process and create integrated learning environments. Multimedia, therefore, was recognized to be an effective tool for instructional purposes (Burden and Byrd, 1999). Consequently, adopting multimedia technologies in teaching process would bring new motivation and environment to the students, and engage them more in the learning, leading to a more successful result.

1.2 Objectives of the Study

1.2.1 To develop an English pronunciation multimedia for Mathayomsuksa I students, to met the efficiency criterion of the 80/80.

1.2.2 To compare English pronunciation ability before and after learning by using the English pronunciation multimedia of Mathayomsuksa 1 students.

1.2.3 To survey the students' satisfaction of the learning by using the English pronunciation multimedia for Mathayomsuksa 1 students.

1.3 Research Hypothesis

The students' ability in English pronunciation after learning by using the developed English pronunciation multimedia is higher than the ability in English pronunciation before learning.

1.4 Scope of the Research

1.4.1 Population

The target group in this research were 25 Mathayomsuksa 1 students who enrolled in semester 1 of academic year 2017 in Ban Nongpan School, Na Dun District, Maha Sarakham Province under Maha Sarakham Primary Educational Service Area Office 2.

1.4.2 Content used in the Research

The author had developed an English pronunciation multimedia tool of Mathayomsuksa 1

students in Ban Nongpan School for 7 topics as the following: Topic 1: Pronunciation of /f/ and /v/ Topic 2: Pronunciation of /θ/ and /ð/ Topic 3: Pronunciation of /s/ and /z/ Topic 4: Pronunciation of /ʃ/ and /ʧ/ Topic 5: Pronunciation of /ʒ/ Topic 6: Pronunciation of /ᠿ/

Topic 7: Pronunciation of /l/ and /r/

1.4.3 Research Duration

The research period was during Semester 1 of Academic Year 2017, at Ban Nongpan School, Na Dun District, Maha Sarakham Province under Maha Sarakham Primary Educational Service Area Office 2.

1.5 Definitions of Key Terms

English pronunciation means pronunciation of English in phonemes /f /, / v /, / θ /, / ð /, / s /, / z /, / \int /, / \Im /, / ϑ /, / ψ /, / V and / r/ by Mathayomsuksa I students in Ban Nongpan School.

Multimedia is the integration of multiple forms of video-visual media for English pronunciation of Mathayomsuksa 1 students consisting texts, graphics, sound and motion pictures.

Satisfaction means student's feeling towards the English pronunciation multimedia for Mathayomsuksa 1 students, that to what extent it is appropriate and having good features for students' learning.

1.6 Research Benefits

1.6.1 This research aimed to develop an English pronunciation multimedia tool that would assist the students to pronounce English correctly.

1.6.2 The multimedia tool would encourage the students to learn English and increase their confidence in speaking English.

1.6.3 The study results would be beneficial for schools in acquiring for new English teaching approaches.

1.6.4 The research obtained instructional media that are efficient, interesting and modern.

CHAPTER 2

LITERATURE REVIEW

This Chapter presents the review on theoretical frameworks of language learning, national policies on foreign language education, issues that are relevant to English pronunciation, as well as, techniques and tools that are effectively employed to assist English pronunciation teaching and learning process. Such review and analysis are important to understand the root of problematic issues, policy context, theoretical foundation and available technology, which would assist in designing and developing appropriate multimedia features in order to enhance the learning and teaching of English pronunciation. The key topics in this Chapter included:

- 1. The Basic Education Core Curriculum B.E. 2551
- 2. English pronunciation and theory
- 3. Lesson plans
- 4. Multimedia
- 5. Satisfaction
- 6. Related research studies
- 7. The conceptual framework of this study

2.1 The Basic Education Core Curriculum B.E. 2551

2.1.1 Foreign Language Learning Strand

2.1.1.1 Why It is Necessary to Learn Foreign Languages

In the present global society, learning foreign languages is very important and essential to daily life, as foreign languages serve as an important tool for communication, education, seeking knowledge, livelihood and create understanding of cultures and visions of the world community. Foreign languages allow learners to be aware of diversity of cultures and viewpoints in the world community, and be conducive to friendship cooperation in various countries. They contribute to learners' development by giving learners better understanding of themselves and others. The learners are thus able to learn and understand differences of languages and cultures, customs and traditions, thinking, society, economy, politics and administration. They will be able to use foreign languages for communication as well as for easier and wider access to bodies of knowledge, and will have vision in leading their lives. The foreign language constituting basic learning content that prescribed in the entire basic education core curriculum is English, while other foreign languages, for example, French, German, Chinese, Japanese, Arabic, Pali and languages of neighboring countries, are left for the discretion of educational institutions to prepare courses and provide learning management appropriately.

2.1.1.2 What is Learned in Foreign Languages

The learning area of foreign languages is aimed to enable learners to acquire avorable attitude towards foreign languages, and to have the ability to use foreign languages for communicating in various situations, seeking knowledge, engaging in a livelihood and pursuing further education at higher levels. Learners will thus have knowledge and understanding stories and cultural diversity of the world community, and will be able to creatively convey Thai concepts and culture in the global society. The main contents included:

1) Language for Communication: using foreign languages for listening, speaking, reading and writing, exchanging data and information, expressing feelings and opinions, interpreting, presenting data, concepts and views on various matters, and creating interpersonal relationships appropriately.

2) Language and Culture: using foreign languages harmonious with culture of native speakers; relationships, similarities and differences between languages and cultures of native speakers; languages and cultures of native speakers and Thai culture; and appropriate application.

3) Language and Relationship with Other Learning Areas: using foreign languages to combine knowledge with other learning areas, forming the basis for further development, seeking knowledge and broadening learners' views.

4) Language and relationship with Community and the World: using foreign languages in various situations, both in the classroom and outside the community and the global society, forming a basic tool for further education, livelihood and exchange of learning with the global society.

2.1.1.3 Learners' Quality: A Case of the 9th Grade Students

1) Act in compliance with requests, instructions, clarifications and explanations said that they have heard or read accurately aloud texts, news, advertisements, tales and short verses by observing the principles of reading; specify/write various forms of non-text information which relating to sentences and texts they have heard and read; choose and specify the topics, main ideas and supporting details, and express opinions about what they have heard or read from various types of media, as well as provide justifications and examples for illustration. 2) Conversing and writing for an exchange data about themselves, various matters around them, situations and news of interest in society, and communicate data continuously and appropriately; using appropriate requests, clarifications and explanations and give suitable instructions; speaking and writing to show needs; offering and providing assistance; offering and refusing help; speaking and writing for giving data, describing, explaining, comparing and expressing opinions about what they have heard or read; speaking and writing to describe their own feelings and giving opinions for various matters, activities, experiences and news/ incidents, as well as to provide appropriate justifications.

3) Describing about themselves, experiences, news/incidents/ various issues of interest in society; speak and write to summarize the main idea/theme or topic identifying from analysis of matters/news/incidents/situations of interest; speak and write to express opinions about activities, experiences and incidents, as well as providing justifications.

4) Choosing appropriate language, tone of voice, gestures and manners by observing social manners and culture of native speakers; explaining about lifestyles, customs and traditions of native speakers; participating in language and cultural activities according to their interests.

5) Comparing and explaining similarities and differences between pronunciation of various kinds of sentences and word orders including structures in foreign languages and in Thai language; comparing and explaining similarities and differences between lifestyles and culture of native speakers and the Thais by applying them appropriately.

6) Searching, collecting and summarizing data/information relating to learning sources, and presenting them through speaking and writing.

7) Using language for communication in real situations/simulated situations in the classroom, school, community and society.

8) Using foreign languages in searching/conducting research, collecting and drawing conclusions about knowledge/various data sources from the media and various learning sources for further study and livelihood; disseminating/conveying the public data and news about the school, community and local area in foreign languages.

9) Being skillful in the use of foreign languages (with emphasis on listening, speaking, reading and writing) to communicate about themselves, their families, schools, the environment, foods, beverages, free time and recreation, health and welfare, buying and selling, climate, education and occupations, travel for tourism, provision of services, places, language and science and technology with a vocabulary of around 2,100 - 2,250 words (words of higher abstract quality).

10) Using compound and complex sentences to communicate meanings in various contexts for both formal and informal conversations.

2.1.2 Strands and Learning Standards

Strand 1: Language for Communication

Standard F1.1: Understanding of and capacity to interpret what has been heard and read from various types of media, and ability to express opinions with proper reasoning.

Standard F1.2: Possessing language communication skills for effective exchange of information; efficient expression of feelings and opinions.

Standard F1.3: Ability to present data, information, concepts and views about various matters through speaking and writing.

Strand 2: Language and Culture

Standard F2.1: Appreciation of the relationship between language and culture of native speakers and capacity for use of language appropriate to occasions and places.

Standard F2.2: Appreciation of similarities and differences between language and culture of native and Thai speakers, and capacity for accurate and appropriate use of language.

Strand 3: Language and Relationship with Other Learning Areas

Standard F3.1: Usage of foreign languages to link knowledge with other learning areas, as foundation for further development and to seek knowledge and widen one's world view.

Strand 4: Language and Relationship with Community and the World

Standard F4.1: Ability to use foreign languages in various situations in school, community and society.

Standard F4.2: Usage of foreign languages as basic tools for further education, livelihood and exchange of learning with the world community.

It can be seen that learner is one of the key success factors in foreign language learning. Apart from good attitude in learning English, all four English skills, namely, listening, speaking, reading and writing, are important for students to use English effectively. Nevertheless, one of the most important things that would make students succeed in learning English and be able to communicate clearly and correctly, is correcting pronunciation, the theory and relevant issues will be covered in the following sections.

2.2 English Pronunciation and Theory

2.2.1 Definition of English Pronunciation

Several authors had defined English pronunciation in various other meanings: Adult Migrant English Program Research Centre (2002), pronunciation refers to the production of sounds that are used to make meaning that includes attention to the particular sounds of a language, aspects of speech beyond the level of the individual sound, such as, intonation, phrasing, stress, timing, rhythm, and how the voice is projected or the voice quality,

Zaremba (2010, p. 215) referred pronunciation as a correct way to emphasize syllables within a word.

Cook (1996, cited in Pourhosein Gilakjani, 2016) defined pronunciation as the production of English sounds, and pronunciation was learnt by repeating sounds and correcting them when produced inaccurately.

Paulston and Burder (1976) described pronunciation as the production of a sound system which does not interfere with communication either from the speakers' or the listeners' viewpoint.

Otlowski (1998) defines pronunciation are the way of uttering a word in an accepted manner

Richard and Schmidt (2002) state that pronunciation is the method of producing certain sounds

It can be summarized that pronunciation is a set of habits of producing sounds. Such habit of producing a sound which is acquired by repeating it over and over again and by being corrected when it is pronounced wrongly. Abroad definition of pronunciation may comprise both suprasegmental and segmental features, including attention to gestures and expressions that are closely related to the way we speak a language.

2.2.2 Importance of English Pronunciation

Pronunciation is one of the most important aspects for English language, and plays as a key role in succeeding communication. Nevertheless, it is an area of language that poses a challenge to both learners in English as a second language (ESL) and the teachers. Many factors have been identified as being responsible for the perceived difficulty in learning pronunciation. These include availability of materials, teachers' role, and inappropriate method of teaching (Brown, 2001). Similar to other ESL skills, good pronunciation helps learners communicate efficiency. Kriedler (1989) stated that correct and clear pronunciation was important in language learning, since without it, learners might not be understood and may be poorly perceived by other English speakers. It is important to pay attention to pronunciation so that the message can be effectively conveyed to others (Fangzhi, 1998)

In class room context, pronunciation is one of the most important things that students have to master communication appropriately and fluently. Morley (1998) had verified that pronunciation played an important role in helping learners to become more intelligible speakers. Limited pronunciation skills could make learners lose their self-confidence and might have a negative influence on them when estimating their credibility and abilities. Therefore, it can be concluded that pronunciation skill is a significantpart of communicative competence, and very important for oral communication.

2.2.3 English Pronunciation Teaching

Pronunciation instruction is important for the students to learn different sounds and sound features as well as to improve their speaking skill (Harmer, 2001) Factors that are considered in pronunciation teaching include learners' age, exposure to the target language, and attitude towards the target language. Morley (1991) stated that intelligible pronunciation is an essential component of communication competence. With the realization that pronunciation as an influential communicative element, pronunciation teaching was often treated as multidimensionality (Morley, 1987). The mainstream principles and direction on pronunciation teaching in modern-day instructional curriculum can be summarized as follows:

2.2.3.1 The integration of pronunciation with oral communication is required, that is to say, communicative approaches to pronunciation teaching (Morley, 1987; Otlowski, 1998) in order for non-native speakers to communicate both effectively and understandably with native speakers, it is imperative to teach them pronunciation in parallel to communicative practices (Otlowski,1998).

2.2.3.2 There should be a shift in priorities from segmental to suprasegmental and an appropriate integration of the both, and ideally given the pronunciation constitutional features, such as, voice quality and facial expressions (Celce-Murcia et al., 1996 and Morley, 1987, According to Cohen, 1977), failure in maintaining a perceptible communication attests to the inadequacy of the teaching of segmental phonemes.

2.2.3.3 There should be more emphasis on self-correcting and selfmonitoring by increasing the speech awareness and autonomy of the participants and by the help of teachers chiefly as supporters (Kenworthy, 1987, Morley, 1991),

2.2.3.4 Focusing should be placed on meaningful task-based practices within communication mode and real-life situations known as contextualization (Bowen, 1972, Celce-Murcia and Goodwin, 1991, According to Bowen (1972), "one way to affect an improvement would be to find means of better integrating pronunciation instruction with other elements of instruction"

2.2.3.5 Attention should be paid to "pronunciation-oriented listening instruction" (Morley, 1991 and Gilbert, 1984) observed the interdependency of listening comprehension and pronunciation and therefore stated that "if they cannot hear English well, they are cut off from the language. If they cannot be understood easily, they are cut off from conversation with native speakers"

2.2.3.6 The impact of the discipline of psychology due to the undeniable influence of emotional factors on pronunciation learning and psychologically related factors such as students' ego and level of self-confidence, establishing a stress-free ambiance related to pronunciation practice and the use of drama techniques to better deal with students' emotions (Wrembel, 2001).

2.2.3.7 The role of Neurolinguistic Programming (NLP), a set of techniques and strategies about the function of mind and the act and react of people, used to induce a desired state of mind in which learning occurs naturally and most efficiently through positive messages and suggestions of success sent by the teacher which lead students to facilitative states (Wrembel, 2001).

2.2.3.8 Sound presentation within a multi-modal method; that is, a combination of auditory, visual, kinesthetic, and tactile. This way, learners can hear a sound, visually see the movement of lips and tongue, feel the distinction and try to reproduce it (Acton, 1997).

2.2.3.9 "A focus on the uniqueness of each ESL learner" (Morley, 1991, p. 495), some researchers have offered various pronunciation teaching techniques and activities related to each intelligence type included within the theory of Multiple Intelligences by Howard Gardner's (1983) (Hismanoglu, 2006). Take for example, students with visual/spatial intelligence, they can make best use of techniques such as using a mirror, wall charts, card games, etc., while techniques like tossing a ball, using a rubber band, knee bending / body language, balloon squealing, etc. can be best for those with bodily / kinesthetic intelligence (Thompson, Taylor and Gray, 2001).

In recent years, there has been an increasing interest in the use of innovative technology for the pronunciation teaching. Various types of computer hardware have been introduced and a number of studies showed a growing interest among language teachers and researchers in the benefits of computer-assisted pronunciation teaching (CAPT) (Albertson, 1982, Molholt, 1988, Molholt, et al., 1988; Pennington, 1988, Chun, 1989, Perdreau and Hessney, 1990). Many empirical studies had recognized the effectiveness of such technology in pronunciation teaching of a second or foreign language (Vardanian, 1964, Richmond, 1976, de Bot, 1983; Weltens and de Bot, 1984, Johnson, et al., 1991, Schwartz, et al., 1991), as CAPT pedagogy provided learners with a stress-free privacy and environment, which they could access virtually

unlimited input, practiced at their own pace and received instantaneous feedback through the integration of Automatic Speech Recognition (ASR) (Hismanoglu, 2006)

It can be stated that the current trend in pronunciation teaching have been influenced by disciplines, such as, psychology, neurolinguistics, sociology, semiotics, and computer technology. The dominant tendency is to adopt an interdisciplinary approach, which combines neurolinguistics, personality factors, psychological factors, nonverbal aspects of communication, including the benefits from the use of computer technology

2.2.4 English Sound System

The sound system of English is made up of phonemes, or individual sounds which carry the potential to make meaning, and these may be vowels, diphthongs (combinations of two vowel sounds), triphthongs (combinations of three vowel sounds) or consonants. These sounds are made by using our tongue in different parts of the mouth. Underhill (1994) gives a teacher-friendly description of the sounds of English, and provides a phonemic chart arranged according to how they are made in the mouth. These sounds are represented by using a phonemic script. It is very useful for teachers to become familiar with this script, and more details and examples are illustrated in Figure 1.

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Figure 2.1 Sound Foundations (Underhill, 1994)

2.2.4.1 The Organs of Speech

The various organs which are involved in the production of speech sound are called speech organs. It is divided two types: passive articulators and active articulators.

1) Passive articulator does little or no movement. It is the part of the place of articulation where the active articulator presses: usually the upper jaw, upper teeth, roof of the mouth, or back of the throat (pharynx).

2) The active articulator does all or most of the movement when a speech sound is made. It is usually the lower lip or a part of the tongue, because the tongue and lower jaw are free moving.

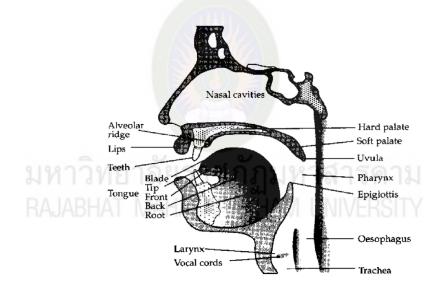


Figure 2.2 Organs of Speech (Gimson, 2001)

2.2.4.2 Places of Articulation

Classification of Consonant Phonemes									
Manner of	Place of Articulation								
Articulation	Bilabial	Labiodental	Dental	Alveolar	Palatal	Velar	Glottal		
Stop									
Voiceless	р	-	-	t	-	k	-		
Voiced	b	-	-	d	-	g	-		
Fricative									
Voiceless	-	f	θ	S	f	-	h		
Voiced	-	V	ð	Z	-	-	-		
Affricate									
Voiceless	-			-	ţ	-	-		
Voiced	าวิทะ	าลัยราง	หกักเ	เหาสา	ඇ	-	-		
Nasal			DVKH		/EDQIT	2 >			
Voiced	m	MALIAJA	NAN IA	n	<u>LUOII</u>	n	-		
Liquid									
Voiced	-	-	-	ι	r	-	-		
Glide									
Voiced	W	-	-	-	j	-	-		

Table 2.1 Places of Articulation

This table shows places and manners of articulation, you will be able to describe each of the sounds. for instance:

1. /p/ is voiceless bilabial plosive

2. /b/ is voiced bilabial plosive

3. /f/ is voiceless labia-dental fricative,

4. /z/ is voiced alveolar fricative etc.

Place of Articulation mean the speech organs that are involved in the production of the consonant in question. Some sounds are produced with the two lips, some with the tongue and teeth, the tongue and alveolar ridge etc. Using this criterion, we have seven types of consonant sounds:

1. Bilabial sounds: sounds produced with the two lips: (p, b, m)

2. Labia-dental sounds: sounds produced with the lower lips and upper front teeth: (f, v).

3. Dental sounds: sounds produced with the contact of the tips of the tongue and the upper front teeth:

4. Alveolar sounds: sounds produced with the contact of the tip of the tongue and the alveolar ridge

5. Palatal sounds: sounds produced with the contact of the blade of the tongue and the hard palate

6. Velar sounds: sounds produced with the contact of the back of the tongue and the soft palate

7. Glottal sounds: the sound produced in the larynx-h

By "voicing", we mean whether or not there is vibration in the vocal cords when the sound is produced. Using this criterion, we have two types of sound 1) voiceless sounds (those produced without vibration) and 2) voiced sounds (those produced with vibration).

8. Glides: consonants that have no obstruction of pulmonic air, the speech organs do not make any form of contact. That is, they are like vowels (w, j)

2.2.4.3 Manners of Articulation

By "manner of articulation", it meant the manner in which the pulmonic air (the air we use to form speech sounds) escapes from the mouth. With some sounds, the air is completely blocked, with some, it escapes with difficulty through the mouth, and with some others it escapes through the nostrils. Using these criteria, we have.

1) Plosives or stops: Like nasal consonants, stop consonants occur when the vocal tract is closed completely. But for stops the airflow is NOT redirected through the nose. Instead, the air quickly builds up pressure behind the articulators and then releases in a burst.

/p/-purse and rap-oral passage is blocked by closing the lips

/b/-"back" and "cab"-oral passage is blocked by closing the

lips (bilabial).

(bilabial).

/t/-"tab" and "rat"-oral passage is blocked by pressing the tongue tip against the alveolar ridge (alveolar)

/d/-"dip" and "bad"-oral passage is blocked by pressing the tongue tip against the alveolar ridge (alveolar)

/k/-"kite" and "back"-block airflow with the back of the tongue against the soft palate (velar).

/g/-"good" and "bug"-block airflow with the back of the tongue against the soft palate (velar).

Plosive sounds can occur in both initial, middle, final consonant which are followed:

[p-t-k] (voiceless) when it appears at behind[s] are always voiceless

2) Fricative: While nasal and stop consonants involve a complete blockage of the vocal tract, fricative sounds involve only a partial blockage of the vocal tract so that air has to be forced through a narrow channel.

For example, you create a /t/ stop consonant when you block airflow completely with your tongue against the alveolar ridge. But if you let up with the tongue a bit and let the air seep through, you make an /s/ fricative consonant.

The English fricative sounds are as follows:

/f/-"fro" and "calf"- air is forced through the upper teeth and lower lip (labiodental)

/v/-"vine" and "have" - air is forced through the upper teeth

and lower lip (labiodental)

 $\theta/-$ "thick" and "bath"-air is forced through upper teeth and tongue (dental)

/ð/-"the" and "rather"-air is forced through upper teeth and

tongue (dental)

/s/-"suit" and "bus"-air is forced through tongue and alveolar ridge (alveolar)

/z/-"zit" and "jazz"-air is forced through tongue and alveolar ridge (alveolar)

/ʃ/-"shot" and "brash"-air is forced through the tongue and point just beyond alveolar ridge (post-alveolar)

/3/- "vision" and "measure"-air is forced through the tongue and point just beyond alveolar ridge (post-alveolar)

/h/-"happy" and "hope"-actually /h/ isn't a fricative. It's technically not even a real consonant sound since there's no constriction/obstruction of airflow.

3) Affricate: When stop consonants mix with fricative consonants, the result is an affricate consonant. Affricate consonants start as stop sounds with air building up behind an articulator which then releases through a narrow channel as a fricative (instead of a clean burst as stops do).

The English affricate sounds are:

 $/t\int$ /-"chick" and "match"-air is blocked with tongue just beyond the alveolar ridge (post-alveolar), then released as a fricative.

 $/d\mathbf{J}/-$ "jam" and "badge"-air is blocked with tongue just beyond the alveolar ridge (post-alveolar), then released as a fricative.

4) Approximant: Approximants are when two articulators come close together but not quite close enough to create air turbulence.

The resulting sound is more like a fast vowel than anything else. For example, the /w/ approximant is like a fast /u/ sound (say /u/ + /a \mathbf{I} / really fast and you get the word "why"). Notice how your tongue never actually comes in contact with the top of your mouth.

There are three English approximants:

/w/-"wet" and "howard"-back of tongue raises to velum (but not too close!) and lips are rounded (velar)

/j/-"yes" and "bayou"-tongue raises to hard palate (but not too close!) (palatal)

/J/-"right" and "roar"-tongue raises to hard palate (but not too close) (alveolar/post-alveolar)

5) Lateral: Lateral consonants are when the tongue blocks the the middle of your mouth so that air has to pass around the sides. You create this when you

There is one lateral consonant in English.

/l/-"luck"-place the tip of the tongue at the alveolar ridge

(alveolar)

6. Nasal: Nasal consonants are created when you completely block air flow through your mouth and let the air pass through your nose.

There are three nasal consonants in English.

/m/-"mad" and "clam"-oral passage is blocked by closing the lips (bilabial).

/n/- "no" and "man'-oral passage is blocked by pressing tongue tip against the alveolar ridge (alveolar).

 $/\eta$ /-"going" and "funk"-Oral passage is blocked by pressing the back of your tongue against the soft palate (velar).

2.2.5 English Pronunciation Problems for Thais

Several studies on English pronunciation problems were conducted as well as the problems affecting the pronunciation skills of Thai undergraduate students.

Chomphuboot (2005) studied Thai undergraduate students' pronunciation proficiency and found that stress and intonation in English were the main problems for Thai undergraduate students, affecting their communication ability.

Dee-in (2006) found that Thai people often had problems with pronouncing the consonant sounds /g/, /tʃ/, /dʒ/, /v/, /z/, /ʒ/, / θ /, / ð /, /ʃ/, and the vowel sounds /i'/, /I/, /e/, / θ /, /u/, /u'/, /au/,/eI/,and /e θ /. Additionally to the pronunciation problems, stress and intonation of English also played a part in their inability to produce the correct form of English speaking.

Dee-in (2006) also pointed out the manner of differences in articulation of the two languages which led to Thais' pronunciation errors in English. Another study reported that the students performed inappropriate and poor pronunciation, particularly in the consonant sounds of /v/, / θ /, / δ /, / \int /, /d3/, two-consonant and three-consonant clusters, such as, / \int r-/, / θ r-/, /skw-/, /-lps/, /-lpt/ and the vowel / ∂ / (Jukpim, 2009). Phon-ngam (2008) studied the consonant sounds as an English pronunciation problem for Thai and Lao undergraduate students and found that the undergraduate students always pronounced /r/ as /l/, pronounced /ð/ as /t/ and /d/, pronounced / θ / as /t/ and /s/.

Phon-ngam (2008) concentrated on the mother tongue (L1), age, learning background, attitudes and motivation, learning materials as well as an instructional design, as important factors for the pronunciation of another language (L2).

Vairojanavong (2000) investigated Thai undergraduate students' pronunciation ability and found that the students could not use their pronunciation ability to communicate understandably. The factors affecting their pronunciation ability included English learning background, poor attitudes and motivation toward important roles of pronunciation and English learning.

Wei and Zhou (2002) claimed that Thai students usually make use of Thai sense in English pronunciation, for example, neglecting to pronounce the final sounds, words with /r/ pronounced as /l/, words with /ð/ and /z/ pronounced as /s/. In addition, they used inappropriate intonation in Yes-No and Wh- questions. Stress is one of the biggest problems for them. Wei and Zhou pointed out many causes of those problems, for example, the language teachers' styles of pronunciation (always in Thai style) and the inhibitions to imitate native speakers' pronunciation.

2.2.6 Evaluation and Assessment of English Pronunciation

According to Ra-Ngubtook (2004) the evaluation and assessment of English pronunciation should consider the following issues: 1) accuracy, meaning that the pronunciation of vocabularies or sentences is correct according to phonetic principles with stress in the vocabularies or sentences; 2) fluency, meaning that the speaking is continuous, with no falter, no stop or no pause, but with clear voice and pronunciation, and ability to communicate; and 3) tone/expression, meaning that the speaking tone is appropriate with the narration, natural, interesting or with appropriate gestures.

Angwatanakul (1997, cited in Martpo, 2011) described that the purpose of English pronunciation test is to assess different elements of language, for example, vocal sound, vocabulary, structure or various skills by conducting each test separately according to each element or each skill wished to be assessed. Pronunciation test is difficult, so the precise testing is the oral test, which still faces difficulties in grading. The most popular test is a test on ability to distinguish the sounds how they are different or similar, for instance, by using minimal pairs and allowing the students to identify how the words are different or similar, for example, sleep/slip, fist/fist, ship/sheep, heat/heat, rid/read, mill/mill. Or the teacher might let the students to listen to each set of three words, and let the students observe that which words have similar sounds, for example, cat: cat: cot, beast: best:

Satayopas (1989, cited in Suwannaphan, 2010) recommended that the best method to assess the pronunciation is to allow the students to actually speak. However, the teacher must set scoring criteria for clear pronunciation, pause, stressing, and speaking fluency. Aksaranugraha, S. (1989) had set the criteria for the evaluation of English pronunciation skills as the followings:

Score Evaluation Criteria

- 5 = Correct and fluent pronunciation, equivalent to a native speaker, with no Thai accent.
- 4 = No clear fault pronunciation, though not similar to a native speaker.
- 3 = Some fault pronunciation with some Thai accent, but able to understand the vocabulary.
- 2 = Some fault pronunciation with Thai accent, totally different from a native speaker.
- 1 = Mostly fault pronunciation, and unable to understand the vocabulary.

2.2.7 ELSA Speak Software

ELSA Speak is an Accent Reduction which is an application (app) for dropping a non-native English accent.

As claimed on website, ELSA has been contained on several digital media websites and magazines and has 4.5/5 ratings from 23,000 users. Though, this pronunciation app could progress in many ways. This section will offer a critical assessment of this pronunciation app in relation to best practices for Mobile Assisted Language Learning (MALL), using Reinders and Pegrum's (2016) framework.

One major shortcoming is that ELSA emphases only on segmental features of pronunciation. The attention on individual sounds is not an issue in and of itself; though, the lack of balance. An Example of Detailed Report between segmental and suprasegmental practice opportunities is problematic. Pronunciation research literature clearly shows that focusing pronunciation instruction on suprasegmental features improves comprehensibility and fluency more than segmental focus (Derwing and Rossiter, 2003, Kang, Rubin, and Pickering, 2010). In fact, (Kang, et al., 2010, p. 555) note that "listeners can tolerate a great deal of inaccuracy in pronouncing consonants and vowels," if suprasegmental features are somewhat accurate. Other research also demonstrates the value of suprasegmental features (e.g., intonation and speaking rate) over segmental features (Anderson-Hsieh, Johnson, and Koehler, 1992) (Derwing and Munro, 1997). While two of the categories in Reinders and Pegrum's (2016) framework for MALL app evaluation relate app design to pedagogical approaches, ELSA has almost no focus on suprasegmental features that are likely to be the most beneficial in accent reduction.

Another category in Reinders and Pegrum's (2016) framework is the potential for educational affordances. ELSA's developers have misrepresented the abilities of their proprietary AI system, which often mistakenly identifies incorrect sounds as correct. The documentation does not provide any information about its accuracy or piloting. Moreover, ELSA seems to have been developed with a focus on quantity over quality. This app has hundreds, if not thousands, of individual exercises about segmental phonemes, but with an inaccurate system for catching mispronunciations combined with inattention to suprasegmental features, it is not likely to be effective for English language learning experts or discerning learners. Even with the paid version of the app, users only get access to more lessons; it does not offer a substantially better version except in providing extra exercises about the same skills and topics.

Correspondence of app design to principles of second language acquisition (SLA) is another category in Reinders and Pegrum's (2016) framework. In a meta-analysis of studies in second language pronunciation instruction, Lee, Jang, and Plonsky (2014) found that an important aspect among many of the studies was the inclusion of both segmentals and suprasegmentals. (Lee, et al., 2014) further suggest three important aspects of SLA as related to pronunciation: 1) using segmental and suprasegmental approaches, 2) aligning lessons with needs analyses, and 3) considering demographic information, such as learner backgrounds and/or first languages. ELSA implements neither a suprasegmetnal approach nor any needs analysis. Because users can input information about their language background in their user profiles, it can be argued that the third of these aspects has been considered in ELSA's design, although it is not clear how the designation of a first language affects the interaction between the user and the app.

The final category of the MALL evaluation framework is related to affect, which Reinders and Pegrum (2016) define as engagement and attention to affective filter. As accurate evaluation of the ELSA app in this category would require assessments from non-native speaking users, it will not be discussed here but would be an appropriate consideration for further development of the app. Several of these issues can be at least partially explained by the fact that the ELSA development team does not include any applied linguists or other English language learning experts. Although the 11 employees featured on the app's website have backgrounds in speech processing, software development, and engineering, a linguistics or an SLA perspective is necessary to make this app more useful for the audience. Finally, a seemingly surface-l level (but important) criticism about the ELSA Corporation website and app are the multiple typos. These include but are not limited to missing words, pluralized noncount nouns (e.g., "feedbacks"), and confusing if not conflicting references to numbers and other statistics without reference to any sources. One typo that stood out as particularly egregious is the misspelling of the word dipthong [sic] on the assessment page.

ELSA is an app that has made great strides in the world of AI for practicing the pronunciation of individual sounds. However, in order for it to break new ground in the world of accent reduction, it needs to be extended to include suprasegmental aspects of pronunciation. The lack of attention to what many applied linguists consider the most important part of accent reduction combined with smaller issues, such as typos cause the app to lose face with the population of experts (language teachers) who are best positioned to both evaluate and market it.

2.2.8 Factors that Influence English Pronunciation in General

Although some researchers believe that all learners have the same capacity to learn a second or foreign language because they have learned their first language, a number of EFL teachers have difficulties in addressing the students' pronunciation problems. As a result, in the past, several researchers have put great efforts, asserted and suggested many factors affecting students' pronunciation (Brown, 1994, Celce-Murcia, et al., 2000, Gillette, 1994, Kenworthy, 1987). In this regard, these previous studies have been repeatedly substantiated that factors, such as native language, age, exposure, innate phonetic ability, identity and language ego, and motivation and concern for good pronunciation ability, appeared to have an influence on teaching and learning pronunciation. Ahmadi (2011) states that there are eight factors within the learners that affect pronunciation :

2.2.8.1 Accent

Accent refers to distinct ways a language is pronounced, whether by native or non-native speakers. English, a world language with many speakers in many diverse regions and of many diverse social groups, has many distinct accents. Some are reference accents, such as Received Pronunciation (RP) and General American (GA). These accents are well known and offer implicit standards for language learning and teaching, while other native and non-native accents are little known or socially stigmatized. Though some accents have higher social value, no accent is linguistically larger. Accents are not a characteristic only of native speakers of English but are also characteristic of English users around the world. In all contexts, English accents are diverse. There is no American English accent, for example, but rather many American English accents. The same holds true elsewhere. Native accents in other inner-circle countries (such as the United Kingdom) differ from region to region or even town to town. In the over 80 countries of the outer-circle countries for example India, Singapore, Ghana), where English has an authorized, official role in multilingual societies, distinct accents of English exist and often have their own regional differences. Lastly, among the over one billion speakers of English as a foreign language in expanding-circle countries, where English is a classroom language but otherwise has no official governmental role, many distinct English accents exist.

Linguistically, accents are informally significant bundles of phonetic characteristics. For example, features as varied as the length of word-final stop consonants, vowel length, pausing behavior, and the degree of diphthongization can characterize native accent differences. Likewise, the precise acoustic features for foreign accents vary depending on many factors, including "age of L2 learning, length of residence

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in an L2-speaking country, gender, formal instruction, motivation, language learning aptitude, and amount of native language (L1) use" (Piske, M. and Flege, 2001, p. 191). Accents are also deeply laden with social information. They can tell us where a speaker is from, their social class, social individuality, and whether they are native or non-native. As Matsuda (1991) put it, "Your accent carries the story of who you are – who first held you and talked to you ... where you have lived ... the language you know, your ethnicity your class position: traces of your life and identity are woven into your pronunciation". Accents therefore are a way speaker are comprised in specific groups and given certain advantages, but accents may also lead to exclusion and difficulty.

Since their social and acoustic saliency, accents often are related with stereotypes and value decisions about speakers and groups. Although foreign accents are simply "non-pathological speech that differs in some perceptible respect from native speaker pronunciation norms" (Munro and Derwing, 1995, p. 290), they may also suggest negative responses from native listeners and result in judgement in areas such as general employment, hiring of English teachers or legal rights. Learners may also find their own accents a source of stigma, leading them to expect problems with communication and a lack of belonging (Gluszek and Dovidio, 2010). A perceived lack of belonging may also result in learners being quiet to others, resulting in loss of chance to acquire the language (Miller, 2003). Accents may become mainly powerful markers for language teachers. Nonnative English-speaking teachers (NNESTs), in particular, may be marked by their accents as not being a native speaker. In this way, NNESTs may, in different teaching contexts, even be seen as deficient users of the target language.

2.2.8.2 Stress, Intonation, and Rhythm

Stress is the first vocal feature to be analyzed. Speakers must stress some syllables in words. If they do not do it, the words will be misunderstood or sound strange. Stress is used in Spanish. Stress also occurs in English. "Pérmit" is different from "permit". "Her friend will presént you with a présent." "I won't clean the GARDEN." implies a meaning different from "I won't CLEAN the garden." In other words, stress refers to the amount of volume that a speaker gives to a particular sound, syllable, or word while saying it. Stressed sounds and syllables are louder and longer than unstressed ones.

The words accent, stress and emphasis are frequently used interchangeably. A major characteristic of the English language is the use of strong and weak stress. Every word or more than one syllable has a syllable that is emphasized more than the others. Accented syllables receive more force and are louder than an unaccented one. Correct use of stress is essential for achieving proper pronunciation of words.

Rhythm is the second feature to be studied. Rhythm is made by the strong stresses or beats in a sentence. In English syllables can be reduced by rhythm. For example, "ham and eggs" is squeezed into two words: ham'n eggs: "I want to be" into I wanna be; "got you" ... gotcha. The five words "I will see you tomorrow" may be pronounced "I'llseeya t'morrow". Connotation is the responsible for the melody of the language.

Speakers frequently depend more on the intonation patterns to convey their meaning than on the pronunciation of the individual vowels and consonants. English Intonation is often the same as Spanish. "You speak English. If your voice falls you are making a statement. If your voice rises you are making a question. So it's not WHAT you say; it's HOW you say it! Intonation is the answerable for the melody of the language. Speakers regularly depend more on the intonation patterns to convey their meaning than on the pronunciation of the individual vowels and consonants. English Intonation is often the same as Spanish. "You speak English. If your voice falls you are making a statement. If your voice rises you are making a question. Consequently, it's not what you say; it's how you say it.

2.2.8.3 Attitude

It seems as though some learners are more adept at acquiring good pronunciation. Even within one homogenous classroom, there is often a large discrepancy among the pronunciation ability of the students. This phenomenon has lead many researchers to study the personal characteristics of the learners that contribute to their success in foreign language acquisition. In a study on pronunciation accuracy of university students studying intermediate Spanish as a foreign language, Elliot (1995) found that subjects' attitude toward acquiring native or near-native pronunciation as measured by the Pronunciation Attitude Inventory (PAI), was the principal variable in relation to target language pronunciation. In other words, if the students were more concerned about their pronunciation of the target language, they tended to have better pronunciation of the target allophones (Elliot, 1995).

This study echoed earlier research done by Suter (1976, p. 249) which found that students who were "more concerned" about their pronunciation had better pronunciation of English as a Second Language (Elliot, 1995). When discussing the attitude of the second language learners in relation to their pronunciation and second language acquisition, it is necessary to note the work done by Schumann (1986) on acculturation and its role in the process of language learning. His acculturation model defines that learners will acquire the target language to the degree that they acculturate (Celce-Murcia, et al., 1996) According to Schumann, acculturation refers to a learner's openness to a target culture as well as a desire to be socially integrated in the target culture.

2.2.8.4 Instruction

Foreign language instruction generally focuses on four main areas of development: listening, speaking reading and writing. Foreign language curricula emphasize pronunciation in the first year of study as it introduces the target language's alphabet and sound system, but rarely continues this focus past the introductory level. Lack of emphasis on pronunciation development may be due to a general lack of fervor on the part of the second language acquisition researchers, second language teachers and students, that pronunciation of a second language is not very important (Elliot, 1995)

Furthermore, pronunciation which is typically viewed as a component of linguistic rather than conversational fluency, is often regarded with little importance in a communicatively oriented classroom (Pennington, 1994). According to Elliot (1995), teachers tend to view pronunciation as the least useful of the basic language skills and therefore they generally sacrifice teaching pronunciation in order to spend valuable class time on other areas of language. Or maybe, teachers feel justified neglecting pronunciation believing that for adult foreign language learners, it is more difficult to attain target language pronunciation skills than other facets of second language acquisition. Possibly, teachers just do not have the background or tools to teach pronunciation and therefore it is disregarded (Elliot, 1995).

2.2.8.5 Age

Generally speaking, children under the age of puberty stand an excellent chance of "sounding like a native.", like native people, they can expose well if they have continued exposure in authentic contexts. The influence of age on language acquisition and specifically pronunciation may make adults find pronunciation more difficult than children do and that they probably will not achieve native-like pronunciation. According to the "Critical Period Hypothesis" proposed by Lenneberg (1967) there is a biological or neurological period which ends around the age of 12; after this period, it becomes extremely difficult to attain the complete mastery of a second language especially pronunciation. However, the degree of pronunciation accuracy, according to Avery and Ehrlich (1992), varies considerably from one individual to another. To them, this discrepancy in pronunciation among adult learners means that ESL classroom time can profitably be devoted to improving students' pronunciation.

2.2.8.6 Personality

Non-linguistic factors related to an individual's personality and learning goals, attitude towards the target language, culture, native speakers, and type of motivation which are beyond the teacher's control (Miller, 2003), all have their share in the development of pronunciation skills. In addition, the degree of exposure to and use of the target language can support or impede pronunciation skills development. For example, learners who are outgoing and confident and get involved in interactions with native speakers are liable to practice their foreign language pronunciation (Avery and Ehrlich, 1992)

Conversely, some learners feel uncomfortable trying out new speech rhythm and melody patterns (Miller, 2000), while others feel stupid pronouncing "weird" sounds, and with time, they decide that it is futile and impossible to learn English pronunciation (Laroy, 1995) In this respect (Miller, 2003) believes that changing – and not changing – speech patterns is affected by how much responsibility the student takes, how much the student practices outside of class, and how ready the student is.

2.2.8.7 Mother Tongue Influence

Avery and Ehrlich (1992) claim that the sound pattern of the learner's first language is transferred into the second language and is likely to cause foreign accents. The mispronunciations of words by nonnative speakers reflect the influence of the sounds, rules, stress, and intonation of their native language. For example, nonnative speakers' production of English rhythm was investigated in several studies (Wenk, 1985, Machizuki-Sudo, Kiritani, 1991). These researchers concluded that the transfer from the learners' native language influenced their production of English-like stress alternation across a phrase.

In this respect, Avery and Ehrlich (1992) point out that the sound system of the native language can influence the learners' pronunciation of a target language in at least three ways. First, when there is a sound in the target language which is absent from the learners' native sound inventory, or vice versa, learners may not be able to produce or even perceive the sound(s).

Second, when the rules of combining sounds in to words (i.e., phonotactic constraints/rules) are different in the learners' mother tongue from those of the target language, they cause problems for learners because these rules are language specific as they vary from one language to another.

Thirdly, since the rhythm and melody of a language determine its patterns of stress and intonation, learners may transfer these patterns into the target language. In summary, while there are other factors that influence the learner's L2 pronunciation acquisition (Graham, 1994) the factors reviewed above may help ESL/EFL teachers consider what learners from different backgrounds are likely to face when learning English as a second language. These factors would enable the teachers to identify the difficulties in the pronunciation of the target language experienced by non-native speakers in order to help them overcome their foreign accent and consequently improve their pronunciation.

To summarize, non-native speaker's pronunciation is progressed or obstructed by the number of factors, including accent, stress, motivation and exposure, attitude, instruction, age, personality and mother tongue. Consequently, teachers should be aware that students' ability and background knowledge because they are from various countries and various cultures. The teachers should predicate the difficulties in the pronunciation of the target language experienced by non-native speakers in order to help them succeed in relative with accent and consequently improve their pronunciation.

2.3 Lesson Plans

Khan (2006) states that lesson planning is an approach for teaching a particular unit trying to save time, energy and give the maximum output in a less time-period. It guides a teacher to the right track towards accomplishment of the pre-determined goals. Besides, it also supports a teacher to measure and evaluate himself for further suggestion of techniques and approaches. In other words, lesson planning is a daily work for each class which a teacher is going to teach.

Every good deed is in fact well planned out. Thus, teaching should also be well thought and written. Lesson Plan is in one way a statement of the accomplished to be made and the specific means by which these are to be achievement as a result of the activities. This definition tends to focus the teacher's attention upon: 1) outcomes or results in term of the pupil; (2) definite processes and procedures with recognition of activity as the basis of learning; (3) the pupil in the center and the teacher in the background as an instructor.

A lesson plan is a teacher's comprehensive description of the teaching/learning activities for a specific lesson as a part of the unit. A daily lesson plan is planned by a teacher to follow written strategies connected to teaching/learning. The detail of the plan may vary from subject to subject; unit to unit and lesson to lesson. The lesson planner takes into account numerous features: the course, target group, learning resources etc.

2.3.1 The Importance of Lesson Plans

Sook (2001, p. 49) summarized the importance of the lesson plan as follow:

1. Encourage teachers to develop an appropriate curriculum and leaning activities in classroom.

2. Teachers have prepared planning ahead and have everything ready for the students.

3. To facilitate the teachers who lacks experience teaching Lesson plan provide useful guidelines for teachers who teach instead. When teachers are not.

4. The learning achievement test are successful.

5. Introduction; Guidelines for classroom teaching

Moonkum, et al. (2008) note the benefits of lesson plans as follow:

1. Create a good lesson plan, good learning from a combination of knowledge and educational psychology.

2. Help teachers have manuals in teaching, self-confidence and make teachers achieve the learning targets.

3. Help teachers recognize that what should teachers need to do for teaching all students, what do they teach for students, how do they teach, why do they teach, what do they use media resource and how do they measurement and evaluation.

4. The lesson plans are used and developed will be benefit to education.

5. Promote teachers, search for knowledge both curriculum and the ways to provide learning activities, using media sources and measurement and evaluation.

6. Be teaching guide in classroom for a teacher who is interested in.

Seema (2009) mentions that planning lesson plan helps the teacher know that what they should teach for the learners each week or hour, including explore various problems that will help them fell confidence in learning management.

2.3.2 The Characteristics of the Good Lesson Plan

Phattiyatanee (2003) has discussed the characteristics of the good plan requires the following steps:

1. The content must be written in hourly timetable.

2. Concepts or principles must match with the content.

3. Behavioral objectives must be consistent with the concept

4. Various teaching techniques can help students to learn.

5. Media should be consistent with content.

6. Measurement process should be considered of the content, concept and behavioral objectives.

Moonkum, et al. (2006) claimed that there are four factors in the good lesson plan:

1. Practical activities.

2. Students' motivation.

3. Guiding to students' daily life awareness.

4. Learning activities using cheap and on-hand material.

2.3.3 The Benefits of Lesson Plan

National Primary Education Commission (2001) has discussed benefits of lesson plan as follow:

1. It helps the teacher to understand to objectives properly.

2. Teacher construct learning activities with confidence and appropriateness to the students and highly qualified.

3. It can be used by substituting teachers.

Ruksuttee (2001, pp. 101-102) says that lesson plan helps the learning and teaching process is tightened and systematically. Students join an activity with happy, funny and student-centered learning. The teacher provide learning activities with confident and It develops selfconfidence in the teacher

Kitrungreuang (2002, pp. 53-54) asserts, learning management systems enable consistent with the instruction to student needs and interests, and can provide materials and resources that are available before teaching. It develops self confidence in the teacher and as a measure of the profession of teacher.

To sum, the benefits of lesson planning include helping the teacher to understand to objectives properly, making teachers quite conscious of the aim which makes them conscious of attitudes they want to develop in students, and developing self confidence in the teacher an**d** inspiring the teacher to improve the further lessons.

2.3.4 Elements of the Lesson Plans

Ruksuttee, et al. (2003) recommend that effective lesson plans should include the following components: concept, learning objectives, content, instructional activities, instructional media, measurement and evaluation, activity suggestions, the recommendations of supervisors, and record after teaching. Beside, (Jaitiang, 2003) suggest that the elements of the lesson plan should include learning objectives, learning standards, learning process, measurement and evaluation, learning center, and record after teaching. Alternatively, Kitrungreuang, et al. (2002) ascertain that lesson plans should include heading, concept, objective, content, activities, material and media, and assessment. Therefore, the above-mentioned key elements will be considered when preparing the lesson plans in this research study.

2.3.5 Evaluation of the Lesson Plan

Lesson plan is an innovation of learning and teaching so, the evaluation of it can do two ways according to Neuangchalerm (2013, pp. 212-215) these are rational and empirical approaches.

Rational approach is a process in finding effectiveness of research instrument by focusing on knowledge and reasons of experts in considering the valuation of learning and teaching innovation. The experts' considerations depend on content validity, usability by using research statistics. Also, learning and teaching innovations are evaluated by rating scales. Hence, the mean score of the experts assessment is ranging between 3.51-5.00 that shows the acceptance of experts at the same way if the effective value of learning and teaching innovation is lower than determined value, it has to be improved and considered again by experts.

Empirical approach is an experimental method. The finding effectiveness of learning and teaching innovation is considered from the percentage of learning process especially, during learning by using two numbers e.g. $E_1/E_2 = 80/80 E1/E2 = 85.85$ $E_1/E_2 = 90/90$. Therefore, the acceptance of effectiveness is based on: 1) The criterion of E1/E2is higher than the determined effective value: 2) The criterion of E1/E2is as equal as the determined effective value: 3) The criterion of E1/E2 is lower than the determined effective value is not over or under 2.5 percent.

Besides and Chookhumpang (2010, pp. 131-133) presents the finding of efficiency and effectiveness of lesson plan by using efficiency process (E₁). The value of it tells that instructional plan enables learners to acquire their learning constantly or not in the defined activity. The scores of it collect sub-exercises or learning behavior. Effectiveness process (E₂) is a value of learning management. Learners achieve the learning objectives or not as well as it is an indicator of learning achievement. The scores of it's comes from an achievement test (post-study test) of all learners. Effectiveness Index (E.I.) is the value of learning progression based on background knowledge after they study by using learning materials or innovations.

Kitrakarn (2003, pp. 1-6) has proposed a way to find the effectiveness of a learning plan by considering the development of students from before and after learning whether the ability increases credibly. The ways to determine the increasing ability include t-test dependent samples and the effectiveness index (effectiveness index: E.I).

1. Finding the incremental value of the learner by using the t-test (dependent samples) is to determine whether the student's development has increased reliably. By testing all students before (Pretest) and after learning (Posttest) and then testing by the t-test Dependent Samples, if it is statistically significant, it can be considered that the student development has increased reliably.

$$t-test = \frac{\sum D}{\sqrt{\frac{n \sum D^2 - (\sum D^2)}{n-1}}}$$
(2-1)

When df = n-1

D = the difference between posttest and pretest

n = the number of participant

2. Finding the development of student growth by using the Effectiveness Index (E.I) is as follows:

$$E.I. = \frac{P_2 - P_1}{(number of student \times number of test item) - P_1}$$
(2-2)

P₂ means summation of posttest score

P₁ means summation of pretest score

To sum up, there are 2 ways of lesson plan evaluation: the rational approach and the empirical approach. The rational approach relies on experts and evaluation before application but the empirical approach relies on learners and evaluation after application. Both of them use research formula and statistics in calculating an effective value for finding content validity and usability. Besides, effectiveness index is value of learning and teaching methodologies as well as learning innovations. In this study, the author uses the rational approach to evaluate the lesson plan by the experts

2.4 Multimedia

2.4.1 The Meaning of Multimedia

Multimedia is the media that uses multiple forms of information content andinformation processing (e.g. text, audio, graphics, animation, video, interactivity) to inform or entertain the user. Multimedia also refers to the use of electronic media to store and experience multimedia content. Multimedia is similar to traditional mixed media in fine art, but with a broader scope. The term "rich media" is synonymous for interactive multimedia.

Multimedia refers to any computer-mediated software or interactive application that integrates text, color, graphical images, animation, audio sound, and full motion video in a single application. Multimedia learning systems offer a better avenue for improving pupils' comprehension about any language. Stakeholders try to find the most effective way to create a better foreign language teaching and learning environment through multimedia technologies (Abbas, 2012) According to him, multimedia provides a complex multi-sensory experience in exploring our world through the presentation of information through text, graphics, images, audio and video, and there is evidence to suggest that a mixture of words and pictures increase the likelihood that people can integrate a large amount of information.

2.4.2 The Importance of Multimedia

Nowadays, students are much more media-centric than those in the previous generation, therefore, the use of multimedia has become more common in classroom teaching. Using multimedia, as a resource for teaching and learning process, provides the students with opportunities to gather information through stimuli that may stimulate their imagination. Education technology and multimedia can be valuable tools when they are integrated into the curriculum appropriately to achieve learning gains, particularly when they are combined with a twenty-firstcentury curriculum.

Multimedia is also fast emerging as a basic skill that will be as important to life in the twenty first century as reading is now. In fact, multimedia is changing the nature of reading itself. Instead of limiting us to the linear presentation of text, multimedia makes reading dynamic by expanding the text in certain topics. This is accomplished not only by providing more text but by bringing it to life with sound, pictures, music and video (Hofstetter, 2001; Rozinah, 2005).

The use of multimedia in teaching and learning is not only able to maintain student's interest but also able to make them enjoy learning. Furthermore, Cairncross and Mannion (2001) finds that multimedia had the potential to create high quality learning environments. The key elements of multiple media, user control over the delivery of information and interactivity can be used to enhance the learning process and create integrated learning environments. Multimedia, therefore, was recognized to be an effective tool for instructional purposes (Burden and Byrd, 1999).

Adopting multimedia technologies in teaching process would bring new motivation and environment to the students, and engage them more in the learning, leading to a more successful result. Pharanucharnart, U. (2014) studied on the development of a remedial English course using multimedia to enhance English proficiency and motivation of students with English proficiency. The results found that the average English proficiency of the students after completing the remedial English course was higher than that before the course.

2.4.3 Multimedia Elements

Multimedia is defined as the combination of various digital media types such as text, images, sound and video, into an integrated multi-sensory interactive application or presentation to convey a message or information to an audience. In other words, multimedia means "an individual or a small group using a computer to interact with information that is represented in several media, by repeatedly selecting what to see and hear next" (Agnew, Kellerman and Meyer, 1996). There are 5 basic categories of media.

2.4.3.1 Text

It may be an easy content type to forget when considering multimedia systems, but text content is by far the most common media type in computing applications. Most multimedia systems use a combination of text and other media to deliver functionality. Text in multimedia systems can express specific information, or it can act as reinforcement for information contained in other media items. This is a common practice in applications with accessibility requirements. For example, when Web pages include image elements, they can also include a short amount of text for the user's browser to include as an alternative, in case the digital image item is not available.

2.4.3.2 Images

Digital image files appear in many multimedia applications. Digital photographs can display application content or can alternatively form part of a user interface. Interactive elements, such as buttons, often use custom images created by the designers and developers involved in an application. Digital image files use a variety of formats and file extensions. Among the most common are JPEGs and PNGs. Both of these often appear on websites, as the formats allow developers to minimize on file size while maximizing on picture quality. Graphic design software programs such as Photoshop and Paint.NET allow developers to create complex visual effects with digital images.

2.4.3.3 Audio

Audio files and streams play a major role in some multimedia systems. Audio files appear as part of application content and also to aid interaction. When they appear within Web applications and sites, audio files sometimes need to be deployed using plug-in media players. Audio formats include MP3, WMA, Wave, MIDI and RealAudio. When developers include audio within a website, they will generally use a compressed format to minimize on download times. Web services can also stream audio, so that users can begin playback before the entire file is downloaded.

2.4.3.4 Video

Digital video appears in many multimedia applications, particularly on the Web. As with audio, websites can stream digital video to increase the speed and availability of playback. Common digital video formats include Flash, MPEG, AVI, WMV and QuickTime. Most digital video requires use of browser plug-ins to play within Web pages, but in many cases the user's browser will already have the required resources installed.

2.4.3.5 Animation

Animated components are common within both Web and desktop multimedia applications. Animations can also include interactive effects, allowing users to engage with the animation action using their mouse and keyboard. The most common tool for creating animations on the Web is Adobe Flash, which also facilitates desktop applications. Using Flash, developers can author FLV files, exporting them as SWF movies for deployment to users. Flash also uses Action Script code to achieve animated and interactive effects.

2.4.4 Steps of Creating in Multimedia

The ADDIE Model (Analysis, Design, Development, Implementation, and Evaluation) is the process of designing and developing a teaching model that educational technologists use to develop instructional materials because of its simple format and clear steps. It can be used to design and develop computer-assisted instruction as well. The ADDIE Model has 5 steps as follows (Kurt, 2018).

2.4.4.1 Analysis

The Analysis phase can be considered as the "Goal-Setting Stage." The focus of the designer in this phase is on the target audience. It is also here that the program matches the level of skill and intelligence that each student/participant shows. This is to ensure that what they already know won't be duplicated, and that the focus will instead be on topics and lessons that students have yet to explore and learn. In this phase, instructors distinguish between what the students already know and what they should know after completing the course.

2.4.4.2 Design

This stage determines all goals, tools to be used to gauge performance, various tests, subject matter analysis, planning and resources. In the design phase, the focus is on learning objectives, content, subject matter analysis, exercise, lesson planning, assessment instruments used and media selection.

2.4.4.3 Development

The Development stage starts the production and testing of the methodology being used in the project. In this stage, designers make use of the data collected from the two previous stages, and use this information to create a program that will relay what needs to be taught to participants. If the two previous stages required planning and brainstorming, the Development stage is all about putting it into action. This phase includes three tasks, namely drafting, production and evaluation.

2.4.4.4 Implement

The implementation stage reflects the continuous modification of the program to make sure maximum efficiency and positive results are obtained. Here is where IDs strive to redesign, update, and edit the course in order to ensure that it can be delivered effectively. "Procedure" is the key word here. Much of the real work is done here as IDs and students work hand in hand to train on new tools, so

that the design can be continuously evaluated for further improvement. No project should run its course in isolation, and in the absence of proper evaluation from the IDs. Since this stage gains much feedback both from IDs and participants alike, much can be learned and addressed.

2.4.4.5 Evaluation

The last stage of the ADDIE method is Evaluation. This is the stage in which the project is being subjected to meticulous final testing regarding the what, how, why, when of the things that were accomplished (or not accomplished) of the entire project. This phase can be broken down into two parts: Formative and Summative. The initial evaluation actually happens during the development stage. The Formative phase happens while students and IDs are conducting the study, while the Summative portion occurs at the end of the program. The main goal of the evaluation stage is to determine if the goals have been met, and to establish what will be required moving forward in order to further the efficiency and success rate of the project.

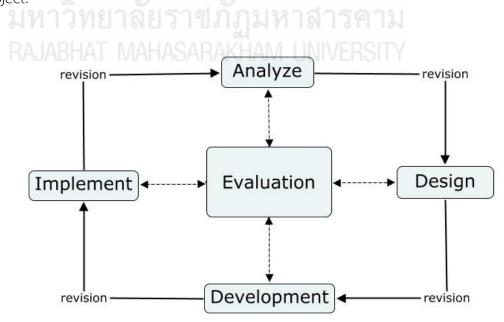


Figure 2.3 The ADDIE Instructional Design Model by Krut, (2018)

From the ADDIE process, It can be applied in the design and development of a multimedia instruction as follows:

Step 1: The pronunciation proficiency tests, a questionnaire and an interview were used to analyze to find learners 'problems and needs in order to explore their requirements for pronunciation treatment and learning.

Step 2: Selecting Instructional Approach. Then, the research chose the appropriate approach for teaching students' pronunciation

Step 3: Designing the Multimedia, the multimedia activities which including;

1. Outline content: The content was outlined in seven units, consist of Unit 1: Sound /f-v/, Unit 2: Sound / θ -ð /, Unit 3: Sound /s-z/, Unit 4: Sound / \int -f, Unit 5: Sound /3/, Unit 6: Sound /3/ and Unit 7: Sound /l-r/. The lesson content is presented in the form of picture, video, text, animation and sounds.

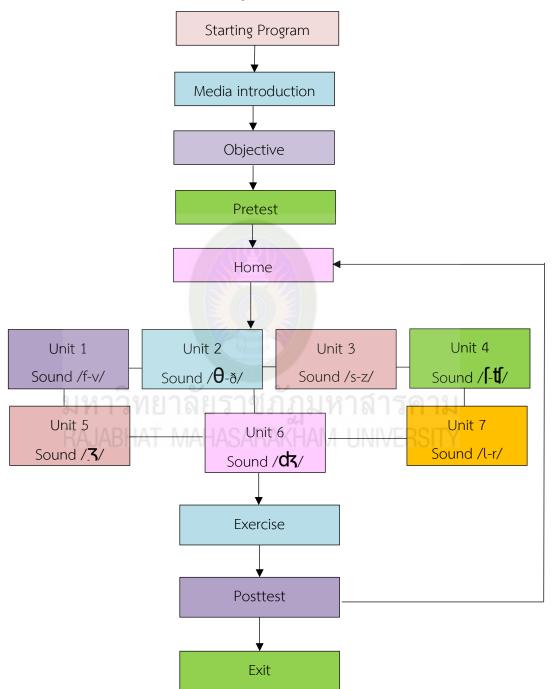
2. Draw flowchart: The flowchart drawing is created to design and illustrate the multimedia's step-by-step sequence and structure.

3. Write storyboard: Storyboards are prepared and identified for screen and display design, details included template names, background designs, colors, etc.

4. Revise design guidelines: The multimedia production includes graphic design and was revised and edited for the most appropriate use and promptness. Step 4: Produce Multimedia

After the preparing the flowchart and storyboards, the media components such as text, pictures, videos and audio used in the multimedia were produced by using Microsoft PowerPoint. Like the previous step.

Step 5: Conduct Implementation In this step, the multimedia prototype was utilized for a tryout study in three steps; 1) individual testing (with three pilot samples), 2) small group testing (with nine pilot samples), and 3) field study testing (with more than thirty pilot samples). The samples in each group are assigned to use the multimedia with suitable duration. After the treatment ended, the multimedia is modified and edited based on problems that occurred during the tryout prototype and reflection from the pilot feedbacks.



The Model of English Pronunciation Multimedia

Figure 2.4 The Model of English Pronunciation Multimedia adapted

from Rodphothong, S. (1995)

2.4.5 Benefits and Limitation of Multimedia

Similar to many teaching and learning tools, the use of interactive multimedia as a part of instruction can have both advantages and disadvantages. Hall and Baumgartner (1991) has highlighted many advantages of multimedia including: increasing the learning effectiveness; more appealing over traditional or lecturebased learning methods; reducing training costs; being easy to use; tailoring information to the individual; providing high-quality video images and audio; offering system portability; freeing the teacher from routine tasks; providing a platform to gather information about the study results of the students; as well as offering significant potential in improving personal communications, education and training efforts. Besides, the advantages of multimedia were confirmed by Xie (2002) and Shelly (2006), who found that multimedia-assisted instruction could strengthen the learning motivation and attention of the learners, increase interactivity, satisfy the individualized demands, as well as provide a platform for monitoring of learning conditions of the learners. However, Hall and Baumgartner (1991) had noted the disadvantage of multimedia teaching and learning tools, particularly the expensive cost. The multimedia tools also required special hardware that were not always compatible or easy to configure. These issues should be taken into consideration when designing and developing such tools for English pronunciation teaching powerpoint presentations in the classroom can improve the efficiency of English language teaching and learning. It also intends to determine the role of technology on motivation in the language classroom power-point presentations in the classroom can improve the efficiency of English language teaching and learning. It also intends to determine the role of technology on motivation in the language classroomIt is a part of the Microsoft Office system which is widely used by business people, educators, students, and trainers.

2.5 Satisfaction

2.5.1 The Definition of Satisfaction

Satisfaction is responding of personal enjoyment toward any activity. That person gains enthusiastic and positive attitude.

Good (1973, p. 163) states that satisfaction is a level of satisfaction that stem from the interest of work and personal attitude toward it.

Wonganucharoth (1992, p.76) states satisfaction as one's total positive attitude. It is happy to work and be paid. It is the outcome that makes anyone show enthusiasms for works.

Krabokto (2000, p.33) made a conclusion that satisfaction such as love likeness proudness happiness willingness and gladness. Those who have work satisfaction will spend true physical, mental and intellectual force toward work.

Somaket (2001, p. 49) made a conclusion that satisfaction is feeling or attitude of one person toward work. Or, positive action toward exercise. Thus, learning satisfaction can be defined as satisfaction and enjoyment in classes participation and accomplish asks in those classes.

In summary, satisfaction is personal positive feeling toward activities that respond their need, good enthusiasm and attitude.

2.5.2 How to Create Satisfaction

There is one satisfaction creation theory that most widely accepted. That theory belonged to Maslow (Maslow's Hierarchy of Need) (Maslow, 1970, pp. 16-22) The theory has some details:

2.5.2.1 Physical needs are basic needs for survive such as food, water, air, accommodation and rest.

2.5.2.2 Security and safety needs are needs for freedom, safety for body, mental and belongings. These needs focus on safety accommodation and surrounding.

2.5.2.3 Acceptance or affiliation needs are requirements of being accepted by the others.

2.5.2.4 Esteem needs are needs to be admired by comrades. They are satisfying of power and self-confidence and pride.

2.5.2.5 Needs for self-actualization are in the highest level as everyone requires achievement.

To sum up, Maslow Needs' theory ranges needs in 5 levels. Each level has different necessity depend on satisfaction one can gain from those levels from basic level to the highest level for any satisfaction one could gain.

Herzberg (1959, pp. 113-115) investigated The Motivation Hygiene Theory that expands ideas of humans' needs ranging. The theory stated 2 factors:

1. Motivation factors which relates to work satisfaction such as work achievement, respect from comrade, work type responsibility and progress in position

2. Hygiene factors which concerns with working environments that enhance satisfaction such as salary, future progressing, career status and working condition etc.

Naveekarn (1982, pp.115-119) states two basic action concepts that both administrators and teachers need to consider for task conducting. Those concepts shall encourage doers' satisfaction.

1. Satisfaction leads to work action is gaining doers' satisfactions by keep responding their need.

2. Work results leads to satisfaction. Satisfaction and work results are linked by activities. Good works' results provide good revenants. That is respond of satisfaction. The results can be both prize and payment. Those rewards can be classified into two types. Those are Intrinsic Rewards and Extrinsic Rewards. The amount of those rewards indicates fairness for doers to receive them. In fact, the level of their satisfaction depends on comparison between what they receive and what they think they will receive.

To summarize, satisfaction is personal positive feeling toward work. Satisfaction encourages achievement. Teacher can give learners satisfaction by using various media. Game is one method encourage students' happiness and active learning action.

2.6 Related Research Studies

2.6.1 Research Conducted in Thailand

The review of available literature and relevant research conducted in Thailand found a number of studies that employed multimedia tools in learning instructions. Most studies indicated satisfactory and more efficient outcomes. For example,

Wongsuriya (2020) examine English pronunciation by students in a remote area and to evaluate the students' performance in English pronunciation using Google translate mobile application. Twenty-four university students who experience the learning incorporated mobile application were selected by a selected purposive sampling process. The finding indicated that all students' pronunciation was significantly improved. All students revealed that mobile application helped them improve their pronunciation ability, even the one who has limited English pronunciation ability. Yangklang (2006) investigated the improvement of English final /-Vpronunciation of 40 Thai students in Matthayom Suksa 4 at Assumption Convent Lamnarai School after using the Computer-Assisted Instruction (CAI) program. It was found that both groups of the students with good and poor pronunciation abilities improved their pronunciation significantly after they used the CAI program.

Winatham (2017) provided an overview of English language learning in Thailand, focusing on the background of English language learning by undergraduate students at Kamphaeng Phet Rajabhat University, and reviewed some commercial multimedia courseware packages available on websites and offered design methods for multimedia courseware educational kits that can be used by teachers in the classroom or by students as self-tutorial aids for English pronunciation learning at Kamphaeng Phet Rajabhat University. The results fund the multimedia courseware was advantageous and preferable for English learning and teaching, particularly for listening, speaking and pronunciation training since the computer system can store principles, knowledge, and sound models, including interactive and graphic media such as animation and video that demonstrate mouth movement and pronunciation, meanwhile Thai undergraduate students have excellent skills in using technology, and they indicated their preference in using technology on a daily basis, such as logging in to the Wi-Fi Internet or a 4G connection through a desktop computer, laptop computer, Net-book computer, tablet, and/or a smart-phone

Kanlayanee (2012) explored the effect of teaching English pronunciation through songs operated by using a computer on Prathomsuksa 4 students at Watratchaphatigaram School, Bangkok. The study showed that the participants were able to pronounce the final sounds more accurately after learning English through songs. Nipattamanon (2018) explored the use of English pop songs with karaoke application in an EFL classroom in order to figure out whether using English songs with karaoke application could enhance connected speech production and what the attitudes towards such a technique were. The study concluded that this technique is an effective activity because it promoted pronunciation, listening and speaking skills, and vocabulary in English. Furthermore, learning English through songs and karaoke application were claimed as a fun and relaxed activity; the students could learn English anywhere and at any time.

Junkerd (2011) conducted a research on the development of a multimedia lesson on English speaking for communication, module "Interesting Places in Pakchong District" for Prathomsuksa 5 students, and found that the developed multimedia lesson on English speaking for communication, module "Interesting Places in Pakchong District" for Prathomsuksa 5 students, had efficiency at 81.25/82.75, corresponding to the defined criterion.

Therefore, more studies on the application of computer multimedia in English pronunciation teaching should be conducted for more various factors and contexts in Thailand.

2.6.2 Research Conducted in Other Countries

The review of relevant researches conducted in other countries found a number of studies that used computer multimedia for pronunciation training.

Hardison (2004) conducted experiments using a pretest-posttest design to determine whether computer-based training that permits visual displays of pitch contours in real time, would help in the acquisition of French prosody by American speakers. The assessment of both quantitative and qualitative results had proved the effectiveness of computer-based tool in assisting speech trainings. Banafa (2004) investigated the impact of the internet and interactive multimedia, namely, the Rosetta Stone CD-ROM and the internet real-time oral chat programs, PalTalk and NetMeeting, on the pronunciation and oral communication skills of Arab college students studying in the United States. Such study found that the use of interactive multimedia CD-ROM was beneficial in improving the pronunciation skills of these Arab college students and the Internet PalTalk and NetMeeting real-time chatting programs helped those Arab college students to improve oral communication skills and to build their confidence in English language learning

Fei Ping Por (2012) studied the benefits of a web-based multimedia pronunciation system, the Multimedia Pronunciation Learning Management System (MPLMS), on students with different psychological profiles. Such study designed and developed three presentation modes of the MPLMS with the purpose to improve English pronunciation among students from non-native background. The study revealed that the MPLMS could encourage students to increase practice of correct pronunciation in a low-anxiety learning environment, brigning about the pronunciation learning effectiveness and a fun experience. That was because the innovative use of graphics, video and audio was the key success factors that captured the students' attention and enhanced their learning enthusiasm.

Therefore, it can be concluded that intervention of interactive multimedia offers a great potential to improve the pronunciation competence of non-native English speakers.

2.7 Conceptual Framework of this Study

From the above literature review on language learning, the importance and theory of English pronunciation, as well as, relevant techniques and tools to assist teaching and to address the student's difficulties in pronunciation, then the conceptual framework of this study was set to develop a pronunciation multimedia to improve English pronunciation for Mathayomsuksa I students in Ban Nongpan School, Na Dun District, Maha Sarakham Province, as outlined in Figure 2.5

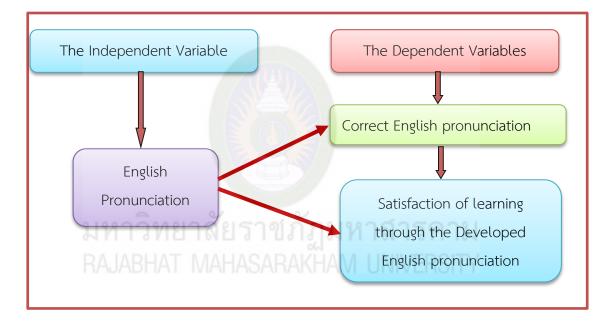


Figure 2.5 Conceptual Framework of this Study

This study would involve the independent variable, which was the English pronunciation multimedia, and the dependent variables, which were the English pronunciation proficiency and the student's satisfaction with the learning through the developed English pronunciation multimedia.

CHAPTER 3

RESEARCH METHODOLOGY

This research aimed to the development of English pronunciation ability by using multimedia for Mathayomsuksa I students in Ban Nongpan School, Na Dun District, Maha Sarakham Province. This chapter comprised;

- 1. Population
- 2. Research instruments
- 3. Construction and efficiency evaluation of the instrument
- 4. Research Design
- 5. Data Collection
- 6. Data Analysis
- 7. Statistics Used for Hypothesis in the Research

มหาวิทยาลัยราชภัฏมหาสารคาม RAJABHAT MAHASARAKHAM UNIVERSITY

3.1 Population

The target group in this research was 25 Mathayomsuksa I students who enrolled in Semester 1 of academic year 2017 in Ban Nongpan School, Na Dun District, Maha Sarakham Province under Maha Sarakham Primary Educational Service Area Office 2 3.2 Research Instruments

The instruments used in this research comprised:

3.2.1 Lesson plans

3.2.2 The developed English pronunciation multimedia for Mathayomsuksa I students.

3.2.3 An English pronunciation test

3.2.4 A satisfaction questionnaire

3.3 Construction and Efficiency Evaluation of the Instruments

3.3.1 Construction of the Lesson Plans

The lesson plans included English pronunciation in teaching process. The lesson plans consist of 12 phonemes, namely, /f/, /v/, / θ /, / δ /, /s/, /z/, / \int /, /3/, /d3/, /df/, /f/, /r/, // which were divided into 7 topics as shown in tables 3.1. What follow were 10 steps of constructing lesson plans:

3.3.1.1 Studying the details of basic education curriculum, school curriculum, strands, and learning standards of foreign language subject area for Mathayomsuksa I level.

3.3.1.2 Studied the principles and elements of the plans by analyzing curriculum, indicators, learning standards, learning and teaching methodology as well as assessment.

3.3.1.3 Studied elements of lesson plan from other educators and other researchers.

3.3.1.4 Conducted the instructional plans that corresponded to the objectives and teaching methodology. There were seven lesson plans, with a total of 14 hours for 7 weeks, 2 days per week, and 1 hour per day in the English class. Each lesson plan consisted of a heading that consisted of the number of the lesson plan; learning strands area; class; topic; time and date; concept use of the plan, objectives of learning and teaching, activities used in the plan, learning processes; materials or media and the assessment of learning. The learning process in the lesson plans consisted of five stages: warm up, presentation, practice, production and wrap up.

Table 3.1 The lesson plans for the Development of English Pronunciation Abilityfor Mathayomsuksa 1 Students by Using Multimedia.

Week	Period	Lesson	Objective	Activities
1	2	Lesson 1	Terminal Objective:	-Listening and Pronouncing
		sound /f-v/	-Students will be able to	the /f-v/ sound with
		-Pretest	pronounce /f/ and /v/	multimedia
	0.1000	-Pronouced /f	sounds correctly	-Pronunciation Activities
	มทา	-v/ sounds	-Students will be able to	-vocabulary
	KAJA	SHAT IVIAHA	identify difference between	-Minimal pairs
			/f/ and /v/ sounds.	-posttest
2	2	Lesson 2	Terminal Objective:	-Listening and Pronouncing
		sound / θ -ð/	-Students will be able to	the θ -ð/ sound with
		-Pretest	pronounce / $ heta$ / and /ð/	multimedia
		Pronounced	sounds correctly	-Pronunciation Activities
		/ θ -ð∕sounds	-Students will be able to	-vocabulary
			identify difference between	-Minimal pairs
			/ $ heta$ / and /ð/ sounds.	-posttest
	I	I	1	(continued)

(continued)

Table 3.1 (continued)

Week	Period	Lesson	Objective	Activities
3	2	Lesson 3	Terminal Objective:	Listening and Pronouncing
		sound /s-z/	-Students will be able to	the /s-z/ sound with
		-Pretest	pronounce /s/ and /z/	multimedia
		Pronounced	sounds correctly	Pronunciation Activities
		/s-z/sounds	-Students will be able to	-vocabulary
			identify difference	-Minimal pairs
			between /s/ and /z/	-posttest
			sounds.	
4	2	Lesson 4	Terminal Objective:	Listening and Pronouncing
		sound /ʃ-ʧ /	-Students will be able to	the / ʃ-ʧ /
		-Pretest	pronounce / ʃ/ and / ʧ/	sound with multimedia
		Pronounced	sounds correctly	Pronunciation Activities
	01000	/ ∫-∜ /sounds	-Students will be able to	-vocabulary
	JN I	UND IND	identify difference	-Minimal pairs
	KAJAI	SHAT IVIAHA	between / J / and / $t J$ /	-posttest
			sounds.	
5	2	Lesson 5	Terminal Objective:	Listening and Pronouncing
		sound / 3 /	-Students will be able to	the / 3 /
		-Pretest	pronounce / 3 / sound	sound with multimedia
		Pronounced	correctly.	Pronunciation Activities
		/ 3 /sounds	-Students will be able to	-vocabulary
			identify difference between	-Minimal pairs
			f/ and $/3/$ sounds	-posttest
	I	l		(continued)

(continued)

Table 3.1 (continued)

Week	Period	Lesson	Objective	Activities
6	2	Lesson 6	Terminal Objective:	Pronunciation Activities
		sound / d3 /	-Students will be able to	Listening and Pronouncing
		-Pretest	pronounce /🕁 / sound	the / dʒ / sound with
		Pronounced	correctly	multimediaPronunciation
		/ dz /sounds	-Students will be able to	Activities
			identify difference	-vocabulary
			between /ʧ/and /ᠿ3/	-Minimal pairs
			sounds.	-posttest
7	2	Lesson 7	Terminal Objective:	Listening and Pronouncing
		sound /l-r/	-Students will be able to	the /l - r /
		-Pretest	pronounce /V and /r/	sound with multimedia
		Pronounced	sounds correctly	Pronunciation Activities
	1182	/l/ and /r/	-Students will be able to	-vocabulary
	DVIV	sounds	identify difference	-Minimal pairs
	MAJAI		between /V and /r/	-posttest
			sounds.	

3.3.1.5 Designed the lesson plan evaluation form for experts to check before using lesson plans. There were 5 experts involved.

33.16 The lesson plans were reviewed by five experts to check the consistency of the plan with learning objectives before the final versions were completed. The experts were: Dr. Narongrit Sopha, Associate Professor in English, Miss Saowalak Noi Asa Senior Professional Level Teachers (K 3 Teachers) in Bannon School who checked the contents and language used in this research. Mrs. Lamool Chuenit,

Senior Professional Level Teachers (K 3 Teachers) in Ban Nonrung School who experts in media and innovation teaching and learning design. Dr. Usanee Duangprom, Senior Professional Level Teachers (K 3 Teachers) in Dontoomdondoo School and Miss. Itnanut Nankeaw, Educational supervisor in the Secondary Educational Service Area Office 26 Mahasarakham who checked the contents of assessment and evaluation. In terms of the index of item objective congruence (IOC), it was found that the values was equivalent to 0.60-1.00

3.3.1.7 The plans were adjusted following the comments of the experts.

3.3.1.8 The plans were tried out with 22 students in Kusantarat school which was not the participant group.

3.3.1.9 The plans were adjusted again to solve the problems found from the tried-out group.

3.3.1.10 The final plans were used with the participant group.

3.3.2 Multimedia

The stages and steps in the development of a multimedia instructional system are explained in following paragraphs.

Step 1: The pronunciation proficiency tests, a questionnaire and an interview were used to analyze to find learners 'problems and needs in order to explore their requirements for pronunciation treatment and learning.

Step 2: Selecting Instructional Approach. Then, the research chose the appropriate approach for teaching students' pronunciation

Step 3: Designing the Multimedia, the multimedia activities which including;

3.3.2.1 Outline content: The content was outlined in seven units, consist of Unit 1: Sound /f-v/, Unit 2: Sound / θ -ð /, Unit 3: Sound /s-z/, Unit 4: Sound / $\int f$, Unit 5: Sound /3/, Unit 6: Sound /ds/ and Unit 7: Sound /l-r/. The lesson content is presented in the form of picture, video, text, animation and sounds.

3.3.2.2 Draw flowchart: The flowchart drawing is created to design and illustrate the multimedia's step-by-step sequence and structure.

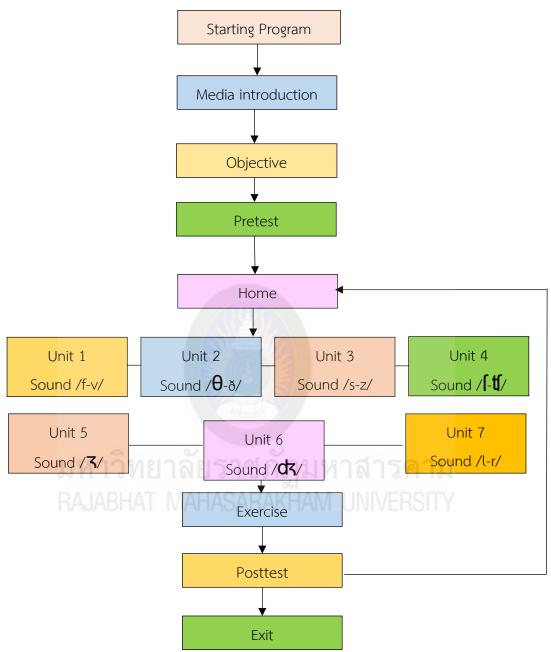
3.3.2.3 Write storyboard: Storyboards are prepared and identified for screen and display design, details included template names, background designs, colors, etc.

3.3.2.4 Revise design guidelines: The multimedia production includes graphic design and was revised and edited for the most appropriate use and promptness.

Step 4: Produce Multimedia After the preparing the flowchart and storyboards, the media components such as text, pictures, videos and audio used in the multimedia were produced by using Microsoft PowerPoint. Like the previous step.

Step 5: Conduct Implementation

In this step, the multimedia prototype was utilized for a tryout study in three steps; 1) individual testing (with three pilot samples), 2) small group testing (with nine pilot samples), and 3) field study testing (with more than thirty pilot samples). The samples in each group are assigned to use the multimedia with suitable duration. After the treatment ended, the multimedia is modified and edited based on problems that occurred during the tryout prototype and reflection from the pilot feedbacks.



The Model of English Pronunciation Multimedia

Figure 3.1 The Model of English Pronunciation Multimedia

3.3.3 English Pronunciation Tests

The English pronunciation tests were constructed to assess the students' pronunciation achievement. The English pronunciation tests consisted of 30 words which covered 12 phonemes, $/f/, v/, \theta/, /\delta/, s/, /z/, /\int /, /3/, /d3/, /f/, /r/, /V$. The students were asked to pronounce words in the test aloud and then the researcher got recorded. The English pronunciation tests were based on objectives of the lesson in 7 units which consist of 12 phonemes /f-v/, $/\theta$ - $\delta/$, /s-z/, $/\int$ -f/, /3/, /d3/, /d3/, /r-V.

The steps for construction of pronunciation test include the following steps.

3.3.3.1 Analyzing the phonemes and vocabularies in English books for Mathayomsuksa I level.

3.3.3.2 Selecting the vocabularies with problematic phonemes for students in Mathayomsuksa I level.

3.3.3.3 Constructing the English pronunciation test of 30 words on the problematic consonants for Mathayomsuksa I students, for 12 phonemes, namely, $f/,v/,\theta/, \delta/,s/,z/, \int /, J/, d /, d /, f/, /v/, N$.

3.3.4 The English pronunciation test were checked by five experts in the field of English or English language teaching to check the validity of the pronunciation test by using the index of item objective congruence or IOC. The usable items should be 0.5 - 1 in IOC. In terms of the index of item objective congruence (IOC), it was found that the value of each item was between 0.60 and 1.00.

3.3.3.5 The English pronunciation test was utilized for a tryout study with students in Kusantarat school, Nadun, Mahasarahkam.

3.3.3.6 The English pronunciation test was finally analyzed on the basis of item analysis for difficulty value and discriminating power in second draft of English pronunciation test. Only those items which had item difficulty value ranging from 0.20 to 0.80, were retained. If the difficulty value is higher than 0.80, the item is too

easy, if the difficulty value is lower than 0.20 then the item is probably too difficult to attempt. such items were rejected. The English pronunciation test was found difficulty value from 0.42 to 79 and discrimination was found from 0.22 to 77.

3.3.3.7 The English pronunciation test was again administered to the same group. The English pronunciation test was used to calculate reliability by using Lovett's formula. The co-efficient of reliability was found to be 0.92.

3.3.3.8 Printing a complete test to be used for further data collection with the sample group.

The Criteria for Evaluating Students' Pronunciation Each student was tested by pronouncing the words. The researcher assessed and gave the scores the tests through five criteria as follows:

Rating Scale

1 = Very poor

Excellent

- 2 = Poor
- 3 = fair 4 = Good

3.3.5. Construction of Satisfaction Survey Questionnaire

The satisfaction questionnaire consisted of three parts.

The first part contained questions which collecting the student's personal information; name, gender, age and education.

The second part contained three parts of content, multimedia presentation and activity for the students to express their opinions and feelings about the English pronunciation multimedia for Mathayomsuksa I students. In this part, they were asked to indicate 5 levels of satisfaction; most, more, moderate, low and very low with the 11 statements addressing three components of satisfaction with English pronunciation multimedia. The third part was the recommendation or suggestions from the learners. It took about 15 minutes for the students to complete all the parts of the questionnaire. The procedures of conducting the questionnaire were:

1. Reviewing the technique for construction of a satisfaction survey questionnaire from a text book "Introduction to Research" by Boonchom Srisa-ard (2002, pp. 63-71)

2. Reviewing the construction technique of a satisfaction survey questionnaire with 5 rating scale, according to Likert's principle, to learn the approach and principle in constructing a 5 rating scale questionnaire

3. Determining the scope of the satisfaction survey on the management of the learning activities, learning media and equipment, learning assessment and evaluation, suitability in terms of content and time period, and the overall learning.

4. Constructing the questionnaire with the 5-rating scale, according to Likert's principle.

5. The questionnaire was reviewed for correctness, appropriateness and validity by five experts. The questionnaire was tried out through the groups of students which was not the same group with the experiment group before the final version was completed. The index of item objective congruence (IOC) of the questionnaire was 0.8-1.

6. Printing the questionnaire to assess the satisfaction of the students on the learning using the multimedia to improve English pronunciation abilities for Mathayomsuksa I students, to be used for further data collection.

3.4 Research Design

The research procedure was conducted according to the One Group Pretest-Posttest Design (Thongbu, 2007, p. 55)

Table 3.2 Research Design

Group	Pretest	Treatment	Posttest
E	O ₁	Х	O ₂

Symbol used,

- E = Experiment group
- X = Learning using the English pronunciation multimedia for

Mathayomsuksa I students

O₁ = Pretest

 $O_2 = Posttest$

In a one-group pretest-posttest design, a pretest was constructed to evaluate participants' background knowledge (O_1), followed by learning using the English pronunciation multimedia for Mathayomsuksa I students (X), then the posttest was conducted (O_2).

3.5 Data Collection

The trial teaching period was in semester 1 of year 2017, with a total of 14 hours for 7 weeks, 2 days per week, and 1 hour per day in the English class, not including the pretest and posttest period. The research procedure was as follow;

3.5.1 In the first week, the participants including 25 Mathayomsuksa 1 students were informed of the purposes of the course syllabus. Then, they were tested by a pretest. The purpose of this pretest was to investigate the background knowledge of the population. The scores of each population were collected as data for this study. The students were pre-tested before every learning lesson.

3.5.2 In the second to the eighth week, teaching and learning was carried out, using the lesson plans that the researcher had constructed. One plan covered 2 periods in each week. Within each week, students then learned according to the learning management plan by using English pronunciation multimedia for Mathayomsuksa I students developed by the author.

3.5.3 In the ninth week, after completing the learning and teaching activities for all units, the researcher gave posttest students. In this posttest the students would pronounce 30 words. The scores were recorded for further data analysis.

3.5.4 In the tenth week, the population answered the questionnaire asking about their satisfaction questionnaire on the learning and teaching by the English pronunciation multimedia for Mathayomsuksa I students. The scores of the opinions of the participants were collected as data for this study.

3.5.5 The data received were then statistically analyzed.

3.6 Data Analysis

3.6.1 Analyzing the efficiency of the English pronunciation multimedia for Mathayomsuksa I students for all 12 phonemes, and the efficiency of the outcome (E_1/E_2) , setting the criterion of 80/80.

3.6.2 Analyzing and comparing English pronunciation skills of students, who learned by using the English pronunciation multimedia for Mathayomsuksa I students before and after the learning. 3.6.3 Analyzing the satisfaction level of student's learning which used the English pronunciation multimedia for Mathayomsuksa I students by using score rating criteria Patthiyatane (2016, p. 221)

3.7 Statistics Used for Hypothesis in the Research

In this research, the author used statistics in the data analysis as follows:

3.7.1 Statistics Used for Quality Analysis of the Tool

3.7.1.1 Index of Item-Objective Congruence or IOC to evaluate the congruence between the objective and the content and the test items. (Patthiyatane, 2016, p. 221)

$$IOC = \frac{\sum R}{N}$$
(3-1)

IOC = Index of item objective congruence $\sum R = Sum of comment scores from all experts$ N = Number of all experts

The IOC of 0.5–1.0 are acceptable

3.7.1.2 The difficulty of the test is evaluated by this formula of Boonchom Srisa ard (2011, p. 95)

$$\mathsf{P} = \frac{R}{N} \tag{3-2}$$

P = is the item difficulty index

R = is the number of test takers who were correct

N = is the total number of test takers

3.7.1.3 The item-discrimination index. (Srisa ard, 2010, p. 96)

$$r = \frac{R_H - R_L}{\underline{N}}$$
(3-3)

where;

 R_H = is the number of test takers in the upper group

 R_L = is the number of test takers in the lower group

N = is the total number of test takers in the total group

3.7.1.4 The reliability of the test is evaluated by KR-20 of Kuder-

Richardson.

$$r_n = \frac{k}{k-1} \left(1 - \frac{\sum_{j=1}^k p_j q_j}{\sigma^2} \right)$$
(3-4)

where

k is number of questions
 p_j is number of people in the sample who answered question *j* correctly
 q_j is number of people in the sample who didn't answer question *j*

correctly

 σ^2 is the square of the variance of the total scores of all the people taking the test = VARP(R1) where R1 = array containing the total scores of all the people taking the test.

3.7.2 Basic Statistics (Worakum, p. 2015, pp. 313-385)

3.7.2.1 Mean $(\overline{\mathbf{X}})$

$$\overline{\mathbf{X}} = \frac{\sum x}{n} \tag{3-5}$$

x is each of the values of the sample

n is the number of samples

3.7.2.2 Standard Deviation (S.D.)

S.D.=
$$\sqrt{\frac{\sum (x1 - \overline{x2})^2}{n-1}}$$
 (3-6)

x is each of the values of sample

n is the number of samples

3.7.3 Statistics used for Hypothesis Testing

Statistics for the hypothesis test, a t-test was used to test the hypothesis that the students' English pronunciation skills after the learning were higher than before the learning using the multimedia to improve English pronunciation skills. (Thongbu, 2550, p. 129)

$$\mathbf{t\text{-test}} = \frac{\sum D}{\sqrt{\frac{n \sum D^2 - (\sum D^2)}{n-1}}}; \, \mathrm{df} = \mathrm{n-1} \tag{3-7}$$

t = Statistical value used to compare with critical value to assess significance

D = The difference between the pretest and posttest score pair

 $\sum D$ = Sum of the difference between the pretest and posttest score pair

 $\sum D^2$ = Sum of the squared difference between the pretest and posttest scores

N = is the number of participants

3.7.4 The Effectiveness of the Instructional Plan,

The Effectiveness Index was used to find students' English pronunciation learning by using multimedia (Patthiyatane, 2010, pp. 218-220)

E.I. =
$$\frac{P_2 - P_1}{(number of student \times number of test item) - P_1}$$
(3-8)

- P_2 is summation of posttest score
- P₁ is summation of pretest score



CHAPTER 4

RESULTS OF RESEARCH

In this research, the author developed a multimedia tool to improve English pronunciation ability for Mathayomsuksa I students. This Chapter presents the data analysis results of the research study, which comprises three main sections that are (1) the efficiency evaluation of the English pronunciation multimedia for Mathayomsuksa I students, (2) the assessment on the effectiveness of the English pronunciation multimedia for Mathayomsuksa I students in improving pronunciation proficiency, and (3) the evaluation of students' satisfaction towards learning using the English pronunciation multimedia.

4.1 Efficiency evaluation of the English pronunciation multimedia

In this section, the author evaluated the efficiency of the multimedia tool in improving English pronunciation skills for Mathayomsuksa I students. The assessment administered was a formative evaluation for instructional efficiency and a summative evaluation for learners' outcome. The Brahmawong E1/E2 formula, based on criteria of 80/80 standard or other evaluation was employed for the multimedia efficiency evaluation. The students' pre-test and post-test scores were compared and were calculated and analyzed by T-test statistic methods to confirm the multimedia efficiency and to examine students' improvement. The results of the data analysis related to the multimedia efficiency are shown in Tables 4.1-4.3.

	Subtest scores in each unit						
Units	Total	Total		6.0			
	Score	Score	x	S.D.	Average		
Unit 1: sound /f-v/	10	221	8.84	0.75	88.40		
Unit 2: sound /0-ð/	10	227	9.08	0.70	90.80		
Unit 3: sound /s-z/	10	226	9.04	0.61	90.40		
Unit 4: sound /ʃ-ʧ/	10	217	8.68	0.63	86.80		
Unit 5: sound / ʃ-ᠿ /	10	221	8.84	0.69	88.40		
Unit 6: sound / ʃ-ʒ /	10	218	8.72	0.68	87.20		
Unit 7: sound /r-l/	10	228	9.12	0.60	91.20		
Total	70	1558	62.32	1.41	89.03		
The efficiency of the process $(E_1) = 89.03$							

Table 4.1	Evaluation	of the	efficiency	of the	process
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The efficiency of the process $(E_1) = 89.03$

Note: $\overline{\mathbf{X}}$ = Mean; S.D. = Standard Deviation

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Table 4.1 Show the score from each unite. These scores indicate the efficiency of teaching and learning process (E_1). The mean score from 7 units was 62.30 from 70 which was 89.30%.

Posttest scores (30)	Numbers of students	Total Scores (750)				
24	1	24				
25	3	75				
26	5	130				
27	27 7					
28	7	196				
29	2	58				
Total	25	672				
	x					
S	1.30					
Ave	Average					
the efficiency of the products $(E_2) = 89.60$						

Table 4.2 The posttest score

Note: $\overline{\mathbf{X}}$ = Mean; S.D. = Standard Deviation

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Table 4.2 Shows that students' posttest mean score was 26.88 from 30 which was 89.60%. This score indicate the efficiency of product (E_2) The results show in Table 1 and Table 2 indicate that the efficiency of the English pronunciation multimedia constructed for this research met the set criteria 80/80. (E_1/E_2 =89.03/89.60), as show in Table 4.3

Table 4.3 Efficiency of the English pronunciation multimedia (E_1/E_2)

	Full	x	S.D	Efficiency
	scores			evaluation
The efficiency of the process (E_1)	70	62.32	1.41	89.03
The efficiency of the products (E_2)	30	26.88	1.30	89.60

Note: $\overline{\mathbf{X}}$ = Mean; S.D. = Standard Deviation

From Table 4.3, the efficiency of the English pronunciation multimedia, developed by the author, in improving English pronunciation abilities for Mathayomsuksa I students was found to be higher than the defined criterion, with the E_1/E_2 value of 89.03/89.60.

4.2 Effectiveness of the English pronunciation multimedia in improving pronunciation proficiency

In this section, the author assessed the effectiveness of the multimedia tool in improving English pronunciation for Mathayomsuksa I students, by comparing their English pronunciation scores before and after the learning. The result is shown in Table 4.4

Table 4.4 Comparison of the English pronunciation test scores before and after

the learning by using the English pronunciation multimedia for Mathayomsuksa I students

D.A.V		IVIAL IA.	ADANI				
Tests	N	$\overline{\mathbf{X}}$	S.D.	$\sum D$	$\sum_{D} 2$	t	р
Pretest	25	15.12	1.59	294	3552	29.62	.000*
Posttest	25	26.88	1.30		JJJL	27.02	.000

Note: $\overline{\mathbf{X}}$ = Mean; S.D. = Standard Deviation; D = the difference between posttest and pretest

Table 4.4 Show that students' pronunciation pretest means score was 15.12 and the posttest mean score was 26.88. When comparing between the pretest and posttest scores, it was found that the posttest scores of the students were higher than the pretest scores at the 0.05 level of significance.

4.3 Students' satisfaction with learning by using the English pronunciation multimedia

In this section, the author examined the learning satisfaction of Mathayomsuksa I students with the use of English pronunciation multimedia. The outcomes of the data analysis for three main aspects of the English pronunciation multimedia, namely, the content, the multimedia presentation, and the activity, are shown in Table 4.5

pronulciation mutainedia			
Evaluation List			Satisfaction
		S.D.	level
1. Content			
1.1 The students gain knowledge and	4.44	0.64	High
understanding on the multimedia.	าสาร	้าคาม	
1.2 The multimedia contained appropriate	4.76	0.43	Highest
content for the student's age.			
1.3 The multimedia content was not too	4.08	0.89	High
easy or too difficult.			
Average for the content	4.43	0.23	High
2. Multimedia presentation			
2.1 The pictures presented in the multimedia	4.40	0.75	High
tool were clear and easy to understand.			
2.2 The quality of the voice sound was clear	4.28	0.92	High
and easy to understand.			
1	I	I I	(continuo

 Table 4.5 Evaluation results of the student's satisfaction towards the English

pronunciation multimedia

Table 4.5 (continued)

Evaluation List		S.D.	Satisfaction
	(3.D.	level
2.3 The font, size and color of the texts were	3.48	0.94	Moderate
clear and easy to read.			
2.4 The multimedia tool was interesting.	4.20	0.75	High
Average for the multimedia presentation	4.09	0.10	High
3. Activity			
3.1 The content description was clear and	4.52	0.70	Highest
easy to understand.			
3.2 The overall satisfaction of the multimedia.	4.40	0.80	High
3.3 The activity could be learned any time.	4.84	0.37	Highest
3.4 The activity enhanced knowledge.	4.76	0.43	Highest
Average for the activity		0.21	Highest
Overall	4.40	0.19	High

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From Table 4.5, the satisfaction of the students with using the English pronunciation multimedia was found to be at a high level with mean score $(\overline{\mathbf{X}})$ at 4.40 and standard deviation (S.D.) at 0.19. When considering each aspect, it was found that the majority of the students were satisfied, ranking from the highest lowest mean score as follows as: (1) the learning activity aspect was at a high level with mean score ($\overline{\mathbf{X}}$) at 4.68 and standard deviation (S.D.) at 0.21; (2) the content aspect was at a high level with mean score ($\overline{\mathbf{X}}$) at 4.43 and standard deviation (S.D.) at 0.23 and (3) the multimedia presentation aspect was at a high level with mean score ($\overline{\mathbf{X}}$) at 4.09 and standard deviation (S.D.) at 0.10.

CHAPTER 5

CONCLUSION, DISCUSSION AND SUGGESTIONS

This chapter obtains finding conclusion, discussion and suggestions.

5.1 Purposes of Study

5.1.1 To develop an English pronunciation multimedia for Mathayomsuksa I students, to met the efficiency criterion of the 80/80.

5.1.2 To compare English pronunciation ability before and after learning by using the English pronunciation multimedia of Mathayomsuksa 1 students.

5.1.3 To survey the students' satisfaction with learning by using the English pronunciation multimedia for Mathayomsuksa 1 students

5.2 Conclusion of the Study

From the data analysis, it can be concluded according to the research objectives as the followings:

5.2.1 The efficiency of the English pronunciation multimedia for Mathayomsuksa I students, developed by the author, was 89.03/89.60, which was higher than the assigned criterion.

5.2.2 The English pronunciation posttest mean score was significantly higher than the pretest means score a the 0.05 level of statistic.

5.2.3 The satisfaction of Mathayomsuksa I students with the learning using English pronunciation multimedia was at a high level with mean score ($\overline{\mathbf{X}}$) of 4.40 and standard deviation (S.D.) at 0.19.

5.3 Discussion

The development of the English pronunciation multimedia for Mathayomsuksa I students revealed some significant findings that could be discussed as the followings:

5.3.1 The efficiency of the English pronunciation multimedia for Mathayomsuksa 1 students was 89.03/89.60, which meant that the efficiency of the multimedia lessons was higher than the set criteria at 80/80. This was because the English pronunciation multimedia which was developed by the author was constructed following the steps of multimedia construction (Kurt, S.2018). Additionally, the lesson plans assigned to use the multimedia were created in line with the principles of a good lesson plan construction and efficiency evaluation. Therefore, the activities were arranged to support students pronunciation improving within the relaxing classroom atmosphere leading to students' confidence in pronunciation practice (Moonkum, et al. 2006; Seema Hasan (2009). Such lessons organized by using multimedia which contain attractive and motivative media such as pictures, video and audio raise students' interest, motivate students' participation in learning activities and make them enjoy learning (Cairncross and Mannion, 2001). These resulted in pronunciation skill improvement during learning each unit and the skill remained high in posttest at the end overall lessons. This finding was congruent with Fei Ping Por (2011) who found that multimedia lessons encouraged students to increase practice of correct pronunciation in a low-anxiety learning environment. It is in line with the finding of Junkerd, R. (2011) who developed a multimedia lesson on English speaking for communication for Prathomsuksa 5 students. She found that the lesson had efficiency at 81.25/82.75, corresponding to the defined criterion at 80/80.

5.3.2 The English pronunciation scores of the posttests was significantly higher than that of the pretest at the .05 level of statistic. This might be because the multimedia presented both slides and motion pictures, with audio description, music sound, colorful graphics, and clear texts could attract the students' attention, and stimulate the students to learn, be enthusiastic, and pay attentions, which helped the students to achieve higher learning outcomes (Hofstetter, 2001; Rozinah, 2005) The finding on the effectiveness of the multimedia lessons on students' speaking and pronunciation skills is consistent with the studies of many researchers. Kanlayanee (2012) and Nipattamanon (2018) used English songs operated by using computer transferring language through songs via multimedia such as pictures, video, and audio. Kanlayanee (2012) found that students' pronunciation of the final sounds increasingly correct. Meanwhile Nipattamanon's students improved their pronunciation and speaking skills after they learned from the songs through karaoke application. Similarly and Junkerd (2011) was able to improves her students speaking skill by using multimedia for English speaking lessons. The effectiveness of the multimedia on students' pronunciation in this study is also consistent with the findings of some research overseas. Hardison (2004) found the effectiveness of computer-based tool in assisting speech trainings. Banafa (2004) found that the use of interactive multimedia CD-ROM was beneficial in improving the pronunciation and oral communication skills of Arab college students. Fei Ping Por (2011) found that Multimedia Pronunciation Learning Management System could encourage students to increase practice of correct pronunciation in a low-anxiety learning environment, bringing about the pronunciation learning effectiveness and a fun experience.

5.3.3 Students' satisfaction with learning by using the English pronunciation multimedia was at high level ($\overline{\mathbf{X}}$ = 4.40, S.D. = 0.19), showing that the students were highly satisfied with the developed English pronunciation multimedia. This might be due to the developed multimedia to improve English pronunciation ability for Mathayomsuksa 1 students assisted the students in learning, leading to a satisfaction of the learning activities. The use of multimedia in teaching and learning is not only able to maintain student's interest but also able to make them enjoy learning. Multimedia had a potential to create high quality learning environments (Cairncross and Mannion, 2001). Furthermore, Cairncross and Mannion (2001) found that the key elements of multiple media, user control over the delivery of information and interactivity can be used to enhance the learning process and create integrated learning environments. Multimedia, therefore, was recognized to be an effective tool for instructional purposes (Burden and Byrd, 1999). Moreover, it was because lesson plan helps the learning and teaching process is tightened and systematically. Students join an activity with happy, funny and student-centered learning. The teacher provides learning activities with self confidence (Ruksuttee, 2001) As Seema Hasan (2009) mention that planning lesson plan help the teacher know what they should teach for the learners each week or hour, including explore various problems that will help them feel confident in learning management.

Consequently, it is clear that, good lesson plans using English pronunciation multimedia can enhance students' pronunciation skills.

5.4 Suggestions

5.4.1 Suggestions for Teaching and Learning Appliation

5.4.1.1 Teachers should use the multimedia lessons appropriately with the suitable length of time and regularly switching with other activities.

5.4.1.2 The content of the lessons using multimedia should be suitable for students' level.

5.4.2 Suggestions for Further Study

5.4.2.1 The English pronunciation multimedia for Mathayomsuksa I students should be developed for other courses, as the research found that students who learned through computer-multimedia lessons could achieve learning results higher than students who learned from a conventional teaching approach.

5.4.2.2 More varieties of multimedia tools should be developed, such as, a game-based computer multimedia lessons, and computer-multimedia lessons in a

form of simulation. RAJABHAT MAHASARAKHAM UNIVERSITY References

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APPENDICES

มหาวิทยาลัยราชภัฏมหาสารคาม RAJABHAT MAHASARAKHAM UNIVERSITY

APPENDIX A

The Lesson Plans

มหาวิทยาลัยราชภัฏมหาสารคาม RAJABHAT MAHASARAKHAM UNIVERSITY

Lesson Plan 1

Lesson Topic: Sound /f/ and /v/ Grade: 7 Time: 2 hours

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Lesson Objective

- 1. Students will be able to pronounce /f/ and /v/ sounds correctly.
- 2. Students will be able to identify difference between /f/ and /v/ sounds.

Language Skills

- 1. Speaking-Practice sounds of /f/ and /v/
- 2. Listening–Discrimination /f/ and /v/

Learning Management

1. Warm up

Time		Procedure
5 minutes	Giving the	1. Greeting
	class with	-Greeting the class
	Word cards	2. Elicit
	I JVIEI 16	-Opening song to motivate the class
	ARHAT IVI/	-Teacher show word card and have students guess what is it
		and teacher implicate it starting with /f/ sound.
		-Have you ever noticed how closely related the /f/
		and /v/ sounds are? I have something to show you.
		Then, teacher showed a picture and ask the students.
		T: What are they?
		Ss: They're fish.
		T: How many fish are there?
		Ss: There are <u>fiv</u> e <u>f</u> ish.
		-Students thinks of the words consisted of /f/ and /v /
		sounds, and divide into 2 sounds, /f/ and /v /.

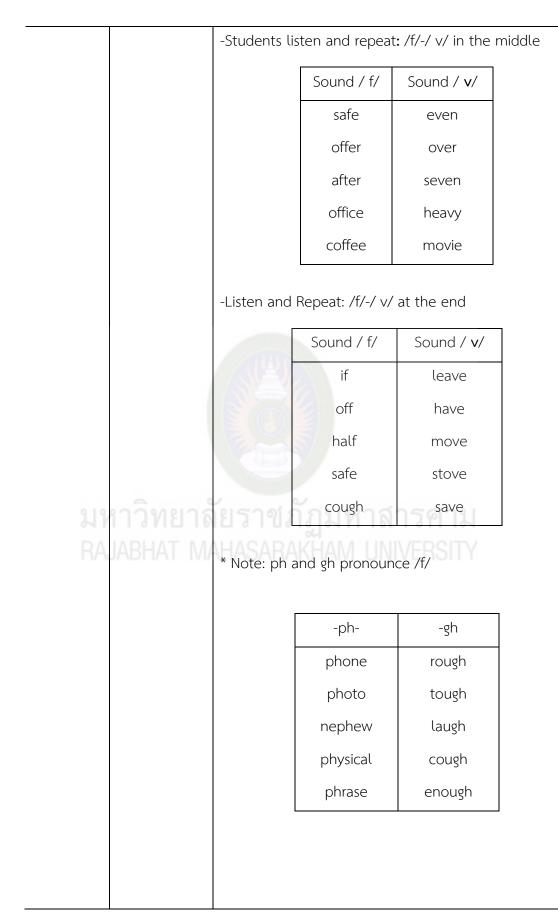
	3. Introduce today's sounds (/f/ and / v/)
	-OK, today we are going to study about the /f/ and /v/
	sounds.

2. Presentation

Time		Procedure
5 minutes	Preparing	1. Teacher recommended the steps of learning by using
	class	English pronunciation multimedia and gave explanation of
		the functions of the buttons on the multimedia consisted of
		the functions back, menu, home and next.
15 minutes	Pretest 10	2. The teacher allowed learners to have a pre-test
	Items	which containing 10 items before leaning /f/ and /v/
		sounds. The teacher recorded for evaluation purposes.
10 minutes	Labial	3. Teacher explains and demonstrate about manner of
9.19.0	pictures (/f/	articulation that is used to pronounce the /f/ and /v/
มท	and /v/)	sounds (tongue/lip placement), like this.
KAJ	ABHAT IVI	-The /f/ sound is made by touching the upper teeth to
		the lower lip and then breathing out. (/f/ is voiceless)
		-The /v/ sound is made exactly the same way except
		for when you make the /v/ sound you pronounced
		(/v/ is voiced)
		-The letter F makes the /f/ sound and the letter V
		makes the /v/ sound.
		Labiodental consonants
		lower lip f fine V vine

3. Practice

Time	Giving			
10 minutes	whole class	1. Students watch video clip about the articulation of		
	English	the /f/ and /v/ sound on English pronunciation		
	pronunciation	multimedia		
	multimedia	2. Students practice the /f/ and /v/ sounds by learning		
		form video clip on English pronunciation multimedia.		
		3. Students practice the voiceless /f/ sound.		
		fox leaf four safe		
		forks half frog family		
10 minutes	Work one by	4. Practice the voiced /V/ sound by saying these		
	one with	words		
	English			
	pronunciation	van knives violin cave		
	multimedia	ยราขภามหาลารคาม		
	JABHAT IVIA	5. Listen and Repeat		
		-Students listen and repeat: /f/ - / v/ in the beginning		
		Sound / f/ Sound / v/		
		fan van		
		fast vast		
		fail vail		
		foal vole		
		few view		



10	Work in	6. minimal pairs /f/ and /v/			
minutes	Group with	-Students practice minimal pairs /f/ and /v/ sound			
	English	these incluc	de:		
	pronunciation		Sound /f/	Sound /v/	
	multimedia		fan	van	
			fat	vat	
			fail	veil	
			fang	vang	
			ferry	very	
10 minutes	Work in	7. Practice S	Sentences		
	group with	-Then, stude	ents practice se	ntences that ha	ve words
	English	using the /f/	and /v/ sound	ls these include	:
	pronunciation	1. He is fam	nous. 2. I like co	offee.	
	multimedia	3. The fan i	is big. 4. She is s	surfing.	
	I I JVIEI I 6	5. Turn it off. 6. A piece of cake.			
		7. Velvet is expensive. 8. I have a black car.			
		9. They are	diving.		
20 minutes	Giving	8. Students	do exercise on	English pronund	ciation
	Exercises	multimedia.			
	Post-test 10	-Exercise 1			
	Items	-Exercise 2			
15 minutes		9. Taking the	e posttest		
		10 items ab	out /f/ and /v/	sounds. The tea	acher
		recorded fo	r evaluation pu	rposes.	

4. Wrap Up (10 minutes) Summarize what they learned.

4.1 Can you help me summarize what we learned today?

4.2 Students pronounce /f/ and /v/ sounds

4.3 What about vocabulary?

5. Material

5.1 Song was used to motivate the class in the first day of the class

5.2 Word picture about "fish" because this word begins with "f" and used to stimulate the class and the teacher asked students questions about the picture. This picture was used after

5.3 English pronunciation multimedia https://www.youtube.com/watch?v=USKrBTvgY_s
Comments and Reflections

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•••••	•••••		••••	••••••
•••••	••••••			
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	มหาวิทยา	ลยราชภ์	กมหาสาร	คาม
	มหาวิทยา	ลัยราชภั	กูมหาสาร	คาม
			กุมหาสาร HAM UNIVE	

Opening Song

Alphabet Song for the Letter "F"
Greg Whitfield
F is a letter that's fun to say
The sound it makes is at the end of its name
Put your bottom lip on your front top teeth
And blow to make the F sound along with me
/f/ /f/ /f/, french fried frogs
/f/ /f/ , furry fat dogs
/f/ /f/ /f/, fingers and feet
F is a letter that can't be beat
Fiddle and fox both start with F
Numbers four and five do too
F's at the end of off and sniff
And right in the middle of waffle, too
/f/ /f/ , french fried frogs
/f/ /f/ /f/, furry fat dogs
/f/ /f/ /f/, fingers and feet
F is a letter that can't be beat
F is a letter that can't be beat

Word Picture



English Pronunciation Media

RAJABHAT MAHASARAKHAM UNIVERSITY Learn English Pronunciation | Vowel Sounds | 23 Lessons https://www.youtube.com/watch?v=USKrBTvgY_s

Exercise

Unit 1: Sound /f/ and /v/

Nar	ne		No
Instruction: List	en to the te	acher and fill i	n the missing words.
1. Last night, Vic	toria	some fresh	fish.
a. fry	b. fried	c. fly	d. flied
2. She fried the	fish in half a	of fa	at.
a. what	b. wat	c. vat	d. hat
3. It smelled fou	ıl, so she tur	rned on the	and opened the window.
a. pan	c. van	c. fan	d. hand
4. I feel it was a	ll her	- (14)	
a. false	b. force	c. fight	d. fault
5. A thousand fl	ies had	and mar	ny leaves had blown into the kitchen.
a. flown	b. flew	c. fly	d. fry
			urn off the fan and close the
a. widow	b. window	c. pillow	d. winner
7. Half of the th	ieves have t	urned off the f	aucet that leads to thewine.
a. fly	b. fry	c. fine	d. fight
8. The vines and	l fans were l	eft in the van a	and will be banned fromuse.
a. fasten	b. frozen	c. favored	d. further
9. A few very la	rge a	re believed to	have transported berries and leaves to be
used as compos	t.		
a. ferries	b. hurry	c. burry c	I. theory
10. It is safe to	veal	and wafers ur	ntil one decides to give a waiver to those
who feel like th	ey do not w	ant to eat it.	
a. Safe	b. save	c. cave	d. pave

English Pronunciation Media

Learn English Pronunciation | Vowel Sounds | 23 Lessons

https://www.youtube.com/watch?v=USKrBTvgY_s

Lesson Plan 2

Lesson Topic: Sound $/\theta$ and $/\delta$ Grade: 7 Time: 2 hours

.....

Lesson Objective

- 1. Students will be able to pronounce $/\theta$ and $/\delta$ sounds correctly.
- 2. Students will be able to identify difference between $/\theta$ / and $/\delta$ / sounds.

Language Skills

- 1. Speaking-Practicing $/\theta$ and $/\delta$ sounds
- 2. Listening–Discriminate $/\theta$ / and $/\delta$ /

Learning Management

1. Warm up

Time	Give	Procedure
5 minutes	Whole	1. Greeting
	class	-Greeting the class
	Word	2. Elicit
	cards	-Teacher offered opening the song named
		https://www.youtube.com/watch?v=l5tzni9UjKO
		-Teacher show the six words (three, thousand, Thursday,
		that, they, this)
		-Can you put these 6 words into 2 groups?
		-Students have 3 minutes to think grouping the words.

-Students work with their partner.
-Teacher check the students' ideas.
3. Introduce today's sounds / $ heta$ / and /ð/
-OK, today we are going to study about the / $ heta$ / and /ð/
sounds.

2. Presentation

Time		Procedure
5 minutes	For the	1. Teacher introduces the steps of learning by using
	whole class	English pronunciation multimedia and describing
		functions of the buttons on the multimedia consisted
		of the functions back, menu, home and next.
15 minutes	Doing the	2. The students have a pre-test containing 10 items
	exercise	before leaning / $ heta$ / and / ð / sounds which be
	which	recording for assessment later.
	includes 10 items	AHASARAKHAM UNIVERSITY
10 minutes	Labial	3. Tell students that there are two different ways to
	pictures / $oldsymbol{ heta}$	pronounce the. Focus students on the phonemes / $ heta$
	/ and / ð /	/ and /ð/
		4. Teacher explains to the class the mechanics of
		making the / $ heta$ / and / ð / sounds, like this.

sticking your tongue out between your teeth
-One way to help students with this is to get them to
put a pen from their nose to their chin (see the
diagram above) and then have them push out their
tongue till it touches the pen.
-The / $ heta$ / and /ð/ air is forced through upper teeth
and tongue.
-Have the students hold their hand lightly on their
throats and they will be able to feel the difference
between $/\theta$ / and $/\delta$ /

3. Practice

Time	Set up	Produce
10 minutes	Whole class	1. Students watch video clip about the articulation of
	English	the / $ heta$ / and /ð/ sound on English pronunciation
	pronunciation	multimedia
	multimedia	2. Students practicepronouncing the / $ heta$ / and /ð/
		sounds by learning form video clip on English
		pronunciation multimedia.
		3. Listen and Repeat
		-Practice the voiceless th / $ heta$ / and pronounce the
		words as follow: the voiceless th / $ heta$ / sound

10 minutes	Pairs or	thank, thick, thief, thin, think, three, thousand, Thursday, thirty-eight, thunderstorm athlete, toothache, wealthy, bath, earth, teeth, cloth, north
	Groups	,
	English	Practice pronouncing th /ð/ sound and pronounce
	pronunciation	the words as follow: the voiced th /ð/ sound
	multimedia	that, than, they, this, those, mother, brother, breathing, clothing, father, feather, other, weather, worthy , together
	าวิทยาลั ABHAT MA	ยราชภัฏมหาสารคาม HASARAKHAM UNIVERSITY

		/ð/	,	/	′ð/	/ð/
		In the beg	inning	In the	1	At he end
				middl	е	
		that		feathe	er	breathe
		this		weath	ner	bathe
		them		father		smooth
		their		broth	er	
		there		mother		
		those		clothe	25	
		they		other		
		these		another		
10 minutes	Whole class, Pairs English pronunciation multimedia	practice the -Students li 4. minimal	ese word sten anc pairs / θ / practice r	s with I repea / and /d ninimal rs: / 0 /	their part tth /ð/ sc	ound. / and /ð/ / sound /ð/

10 minutes	Whole class	5. Practice Sentences
	English	-Then, students practice pronouncing sentences that
	pronunciation	have words using the / $ heta$ / and /ð/ sounds. These
	multimedia	include:
		1.They thank you very much.
		2. Breathe a normal breath.
		3. They should ask their father or their mother.
		4. The other clothes are new.
		5. That thing is bigger than that other thing.
		6. There is something in that dog's mouth.
20 minutes	Whole class	6. Students do exercise on English pronunciation
	Exercises	multimedia.
		-Exercise 1
		-Exercise 2
15 minutes	Post-test 10	7. Students take a posttest containing 10 items about
	Items	/ $ heta$ / and /ð/ sounds. The teacher recorded for
	IABHAT IVIA	evaluation purposes.

4. Wrap Up (10 minutes) Summarize what they learned.

- 4.1 Can you help me summarize what we learned today?
- 4.2 Students pronounce $/\theta$ and $/\delta$ sounds
- 4.3 What about vocabulary?

5. Material

- 5.1 Song
- 5.2 Word pictures will comprise the words from English Pronunciation Form
- 5.3 English pronunciation multimedia

Comments and Reflections

		 ••••••	••••••
••••••	•••••••••••••••••••••••••••••••••••••••	 ••••••	••••••



RAJABHAT MAHASARAKHAM UNIVERSITY

Exercise

Unit 2: Sound / $m{ heta}$ / and / ð /	
NameNoNo	
Instruction: How do we pronounce these words?	
1. Through	
a. Voiceless b. Voiced c. Silent	
2. Thank	
a. Voiceless b. Voiced c. Silent	
3. They	
a. Voiceless b. Voiced c. Silent	
4. Birthday	
a. Voiceless b. Voiced c. Silent	
5. Whether	
a. Voiceless b. Voiced c. Silent	
6. Health	
a. Voiceless b. Voiced c. Silent	
7. Both	
a. Voiceless b. Voiced c. Silent	
8. Anything	
a. Voiceless b. Voiced c. Silent	
9. Monthly	
a. Voiceless b. Voiced c. Silent	
10. Southern	
a. Voiceless b. Voiced c. Silent	

English Pronunciation Media

Learn English Pronunciation | Vowel Sounds | 23 Lessons

https://www.youtube.com/watch?v=USKrBTvgY_s

Lesson Plan 3

Lesson Topic: Sound /s/ and /z/ Grade: 7 Time: 2 hours

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Lesson Objective

- 1. Students will be able to pronounce /s/ and /z/ sounds correctly.
- 2. Students will be able to identify difference between /s/ and /z/ sounds.

Language Skills

- 1. Speaking-Practice sounds of /s/ and /z/
- 2. Listening–Discrimination /s/ and /z/

Learning Management

Warm up

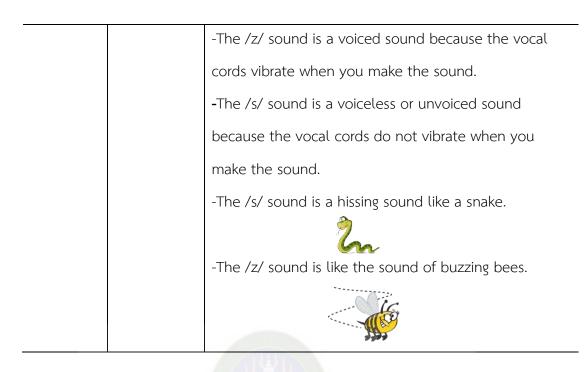
1.	Warm	up
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Time	Give	Procedure
5 minutes	Whole	1. Greeting
	class	-Teacher gives greeting to the class
	Word cards	T: Good morning. / Good afternoon. How are you
		today?
		Ss: I'm fine. Thank you. And you?
		T: I'm fine. Thanks.

2. Elicit
-Teacher offers music in class in order to create learning
atmosphere
-Students think of words that start with /s/ or /z/ or
have /s/ or /z/ in them?
-Divide the words into 2 columns, A is /s/ and B is /z/
students put the words in the right columns.
-Students work with their partner.
-Teacher check the students' ideas.
3. Introduce today's sounds /s/ and /z/
 -OK, today we are going to study about the /s/ and /z/ sounds.

2. Presentation

Time	For	Procedure
5 minutes	Whole class	1. Teacher introduces the steps of learning by using
	I I JVIEI I	English pronunciation multimedia and describes the
	JABHAT IVI	functions of the buttons on the multimedia consisted
		of the functions back, menu, home and next.
15	Pretest 10	2. The students have pretest which containing 10 items
minutes	Items	before leaning / s / and / z / sounds. The teacher
	Labial	recorded for evaluation purposes.
	pictures / s /	3. Teacher explains to the class the mechanics for
	and / v /	making the /s/ and /z/ sounds.
		4. Teacher explains the /s/ and /z/ sounds, air is
		pushed down the center of your tongue and between
		the tip of your tongue and your top teeth. The
		movement of the air makes the /s/ and /z/ sounds.



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3. Practice

Time	Set up		Proc	luce				
10	Whole class	1. Students watch video clip about the articulation of						
minutes	English	the /s/ and /z/ sound on English pronunciation						
	pronunciation	multimedia.	multimedia.					
	multimedia.	3. Students prac	3. Students practice the /s/ and /z/ sounds by learning					
		form video clip	on English p	oronunciation	n multimedia.			
		Pronounce all o	f the words	in column a	, then, all of			
		the words in col	umn b. The	y can practi	ce these words			
		with their partne	er.					
			(A) /s/]			
				(B) /z/				
			Cups	Spoons				
			Suits	Shoes				
	หาวิทยา	ฉัยราชกัก	Sleeps	Snores				
			Chiefs	Logs	/			
	JADHALIVI	AHAJANANI	Plates Books	Bowls Pencils				
			Walks	Rides				
			Writes	Reads				
			WIItes	neaus				
		-The /s/ in the fi	irst two colu	imns is voice	eless because it			
		follows a voicele	follows a voiceless sound, /p/, t/, /k/, /f/, or /th/.					
		- The /s/ in the	last two col	umns becor	nes voiced /z/			
		because it follow	ws a voiced	sound.				
		- The following r	nouns form	their plurals	by adding a			
		separate syllable	e which is p	ronounced /	/z/.			

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	T	1						
		-There are five common spellings of the /s/ sound:						
		s/ss, ce	s/ss, ce, ci, sc, and x.					
		-There are	-There are three common spellings of the /z/ sound: z/zz, s, x.					
		-This oc	-This occurs after /b/, /d/, /g,/ /v/, /m/, /n/, /ng/, /r/					
		and afte	er vowel	sounds.	The 1	follo	wing are exan	nples:
			Can-car	าร		Cluk	p-clubs	
			Name-r	ames		Pie-	pies	
			Meal-m	eals		Pen	-pens	
			Bag-bag	S		Wor	d-words	
			Song-sc	ongs		Ner	/e-nerves	
10	Whole class	4. Lister	n and Re	epeat				
minutes	English	-Studer	its pract	ice pronc	buncir	ng /s/	′ and /z/ at tł	ne
	pronunciation	beginnir	ng of wo	ords.				
	multimedia.		Se	ound /s/		0	Sound /z/	
	ห <mark>าวิทยา</mark> JABHAT M	ลัยรา AHAS	ขภัม ARAK	lacy fussy prices	าสา JNIN	เรศ /ER	lazy fuzzy prizes	
				looser			loser	
				buses			buzzes	
		Sound Sound /s/ /z/						J
		-Studer	its pract	ice pronc	ouncir	ng /s/	′ and /z/ in tł	ne
		middle of words.						
		-Students practice pronouncing /s/ and /z/ at the end					ne end	
		of word		- 1		, د , د		

	Γ	Γ				
			Sink	Zip		
			Sue	Zoo		
			Seal	Zeal		
			Sleep	zero		
		Г				٦
			Sound /s	s/ S	ound /z/	_
			place		plays	
			race		raise	
			lice		lies	
			once		ones	
						_]
		5. The differer	nce lies no	t in the	voicing of	/s/, but also
10 minutes	Whole class,	in the length				
	Pairs	in the tengury		etbeloi		
	English		1.1		/_ /	
	pronunciation	~	/s/		/z/	
	multimedia.	ลยราชภ	lce	Eye	es	
	JABHAT IV	AHASARA	Peace	Pea	assity	
			Loss	Lav	VS	
			Place	Pla	ys	
			Race	Rai	se	

			Sound /s/	Sound /z/	
			Sue	Z00	
			face	phase	
			race	raise	
			bus	buzz	
			ice	eyes	
				I	
		-The ending	/es/ takes the /iz	z/ sound after	/s/, /z/,
		/sh/, /h/ and	d /z/. อะไร		
		1.			
			-buses -raises	rose-roses house-house	
			e-places	nouse-nouse	:5
10 minutes	Whole class	6. minimal p	airs /s/ and /z/		
	English	-Students pr	actice minimal pa	airs /s/ and /z/	' sound
	pronunciation	these includ	e: "suit", "bus",	"zit" and "jaz	Ζ"
	multimedia.	AHASAKA			
10 minutes	Whole class	7. Practice p	ronouncing ssent	ences	
	English	-Then, stude	ents practice sent	ences that hav	ve the /s/
	pronunciation	and /z/ sour	nds with multime	dia.	
	multimedia.	1. The salad	d has lettuce and	tomatoes.	
		2. The mou	se is sleeping in t	he house.	
		3. We will v	isit the zebras at	the zoo.	
		4. Eggs and	biscuits are so de	elicious.	
		5. The bus i	s slowly moving	down the stre	et.

_

20 minutes	Whole class	8. Students do exercise on English pronunciation	
	Exercises	multimedia.	
		-Exercise 1	
		-Exercise 2	
15 minutes	Post-test 10	9. Students take the post-test containing 10 items	
	Items	about /s/ and /z/ sounds. The teacher recorded for	
		evaluation purposes.	

4. Wrap Up (10 minutes) Summarize what they learned.

- 4.1 Can you help me summarize what we learned today?
- 4.2 Students pronounce /s/ and /z/ sounds
- 4.3 What about vocabulary?

5. Material

- 5.1 Song
- 5.2 Word pictures from Evaluation Form of Student's Pronunciation
- 5.3 English pronunciation multimedia

Comments and Reflections

Exercise

Unit 3: Sound / s / and / z /					
	Name		No		
Instruction: Choose correct sound of these words.					
1. market-cat-	book-cup-pl	ate			
a. IZ	b. S	с. Z	d. No answer		
2. boat-sock-b	oike-shirt-parl	k			
a. IZ	b. S	с. Z	d. No answer		
3. face-messa	ge-case-plac	e-dress			
a. IZ	b. S	c. Z	d. No answer		
4. record-film-	umbrella-wa	all-day			
a. IZ	b. S	c. Z	d. No answer		
5. purse-box-ł	nouse-orange	e-office			
a. IZ	b. S	c. Z	d. No answer		
6. paper- flow					
a. IZ	b. S	c. Z	d. No answer		
7. board-phot	o-bell-penci	l-key	SARAKHAM UNIVERSITY		
a. IZ	b. S	с. Z	d. No answer		
8. packet-fork-week-ship-hat					
a. IZ	b. S	c. Z	d. No answer		
9. fridge-sausage-race-beach-fox					
a. IZ	b. S	с. Z	d. No answer		
10. damage-m	10. damage-massage-sandwich-close				
a. IZ	b. S	с. Z	d. No answer		

English Pronunciation Media

Learn English Pronunciation | Vowel Sounds | 23 Lessons

https://www.youtube.com/watch?v=USKrBTvgY_s

Lesson Plan 4

Lesson Topic: Sound / J/ and / J/ Grade: 7 Time: 2 hours

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Lesson Objective

- 1. Students will be able to pronounce $/\int$ and $/t\int$ sounds correctly.
- 2. Students will be able to identify difference between $/\int$ and $/\oint$ sounds.

Language Skills

- 1. Speaking-Practice sounds of $/\int$ and $/\oint$
- 2. Listening–Discrimination / \int / and / \oint /

Learning Management

1. Warm up

Time		Procedure	
5 minutes	For	1. Greeting	
	Whole class	- Teacher gives students greeting by simple sentences	
	Word cards	T: Hello, everyone. How are you?	
		Ss: I'm very well. Thank you. And you?	
		T: I'm good. Thanks.	
		2. Elicit	
		Teacher show the picture.	
		T: What is it?	

	S: It is a ship.
	T: What are they?
	S: They are chips.
	-Have students write the words with /ʃ / and /ʧ/ on
	their paper while writing them on the board. Mention
	to students there are additional spellings.
	-Give students 4 minutes to find the words in the
	menu with the / \int / and / \oint / sounds. Use the example
	to illustrate the activity. While numbers indicate how
	many words contain the sound, encourage students to
	do their best and use their partner for help.
	-Have one pair write their list of /ʃ / words and another
	pair their list of /ʧ/ words on the board. After
	classmates fill in the missing words, then give them
บหาวิทยาส	another words. Optional: If time is limited, show the
	answer key using the board.
NAJADHAT IVI	3. Introduce today's sounds / \int / and / \oint /
	-OK, today we are going to study about the / \int / and
	∕ ʧ ∕ sounds.

2. Presentation

Time	For	Procedure	
5 minutes	Whole class	1. Teacher introduces the steps of learning by using	
		English pronunciation multimedia and describes the	
		functions of the buttons on the multimedia consisted	
		of the functions back, menu, home and next.	

15	Pretest 10	2. The teacher give the students taking a pre-test		
minutes	Items	containing 10 items before leaning /// and //// sounds. The		
		teacher recorded for evaluation purposes.		
10	Labial	3. Teacher explains to the class the $/\int$ / sound in English is most		
minutes	pictures / ʃ /	often represented by the letters 'sh', such as she shore, shell and		
	and / ʧ /	wish. The / \oint sound in English is most often represented by the		
		letters 'ch', such as chip, chart, chop, check. The / ${ m I}/$ sound is		
		very close to the / \int / sound. The difference between / \int / and /t \int /		
		is that /// is fricative and /t// is affricate. A fricative sound can last		
		a long time as in shhhh / (in this case we have a flow of air).		
		An affricate sound is short, even if it ends in a fricative. In the		
		case of t we have a puff of air.		
		The /sh/ or /ʃ/ sound you must pucker your lips and		
		curl the tip of your tongue slightly, without touching		
	หาวิทยาล	the roof of your mouth like this:		
	JABHAT M			
		A CAR		
		/ j / sound		
		-The /ch/ or /tʃ/ sound, you let your lips relax. Then		
		you touch the tip of your tongue to the roof of your		
		mouth as if you are going to make a /t/ sound. You		
		quickly move the tip of your tongue forward like this:		
		/t ʃ / sound		
		The Second		

3. Practice

Time	For		Procedure	
10	Whole class	1. Students watch	video clip about †	the articulation of
minutes	English	the /ʃ/ and /ʧ/ on English pronunciation multimedia.		
	pronunciation	2. Students practic	e the / \int / and / \oint	/sounds by learning
	multimedia.	form video clip on	English pronuncia	ation multimedia,
		example: sh /ʃ/ so	und	
		ship	sheep	shoes
		shop		
		shop	dish	wash
	หาวิทยา	ลัยราชกัก	ch / ʧ / sound	
	AJABHAT N			
		chip	cheese	watch
		chai	r sandwich	chicken
10	Give the	chop	- +.	
minutes	Whole class	4. Listen and Repe -Students practice	_	und / ff / at the
	English	beginning of words	-	1107 y 7 at the
	pronunciation			

	multimedia.		Sound / ʃ /	Sound / 🖞 /
			shine	change
			ship	charge
			shoe	cheap
			shop	check
			should	cheese
			show	chew
				choose
		-Studer	its practice pronouncing $/f$ an	d / \mathbf{I} at the middle of v
			Sound / J /	Sound / 🖞 /
			action	achieve
			passion	kitchen
			patient	future
	เหวอิทยา	ฉัยร	sound / J /	sound / J
			station	purchase
	AJABHATIV	IAHA	SARAKHAIVI UNI	teacher
		Student	is practice pronouncing $/f$ and	d / t at the end of word
10	Give Whole		/ \int /-/ \oint at the beginning	$/\int/-/f$ at the end
minutes	class, and		Share-chair	Cash–catch
	Pairs works		Sheep-cheat	Mash-match
	English		Sheet-cheese	Wash-watch
	pronunciation		Shoes-choose	Wish-witch
	multimedia.		Ship-chip	

			dish	approach	
			push	catch	
			wash	each	
			wish	lunch	
				much	
				pitch	
			L		
10	Give the	6. minim	nal pairs / ʃ /-/ ʧ		
minutes	Whole class	Student	s practice minimal pai	rs /∫ / and /ʧ sound.	
	English	They ca	n practice these word	s with their partner.	
	pronunciation	7. Practi	ce Sentences Then, st	udents practice sentence	es
	multimedia.	that hav	re words using the /ʃ /	′ and / ff sounds by	
		learning	with multimedia.		
		1 You s	hould get a watch.		
	หาวิทยา	2 He wa	ants to catch some fis	h. วรดาย	
		3 I don'	't know whether he h	urt his shin or his chin.	
	JADHATIN	4 Where	e does she teach?		
		5 Put th	ne cherries in a dish.		
20	Whole class	8. Stude	nts do exercise on En	glish pronunciation	
minutes	Exercises	multime	edia.		
		-Exercis	e 1		
		-Exercis	e 2		
15	Post-test 10	9. After	finished students takir	ng a post-test containing	
minutes	ltems	10. item	s about /ʃ / and /ʧ sc	ounds. The teacher	
		recorded	d for evaluation purpo	oses.	

4. Wrap Up (10 minutes) Summarize what they learned.

4.1 Can you help me summarize what we learned today?

- 4.3 What about vocabulary?

5. Material

5.1 Song

5.2 Word pictures from Evaluation Form of Student's Pronunciation

5.3 English pronunciation multimedia

Comments and Reflections

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•••••	•••••••				••••••
	•••••••	••••••	•••••	••••••	••••••

Exercise

Unit 4: Sound / **ʃ** / and / **ʧ** /

NameNo.....

Instruction: Choose the correct answer. 1. Which word pronounce with sound //?a. ship b. chip d. chair c. watch 2. Which word pronounce with sound / t /? a. share b. catch c. ship d. cash 3. Which word pronounce with sound / /? a. catch b. chip d. cash c. watch 4. Which word pronounce with sound / \oint /? a. share b. chip d. cash c. ship 5. Which sentence contain the sound //?a. Try to catch me b. She likes her teacher very much c. They were watching the preacher. d. He's going to shave. 6. Which sentence contain the sound / \oint /? b. We're washing the dishes. a. Brush your shoes. c. You should get a watch. d. He's going to shave. 7. "You should get a watch." This sentence contains... b./**f**/ a. // and /t/ c. / [/ d. No answer

8. "Put the cherries in a dish." This sentence contains...

a. /ʃ/ b./**t**// c. $/\mathbf{J}/$ and $/\mathbf{J}/$ d. No answer

9. "It's a fishing boat." This sentence contains...

a. /ʃ/ b./**t**// c. /ʃ/ and /ʧ/ d. No answer

10. "The children were in the kitchen." This sentence contains...

- a. /ʃ/ b./**t**// c. /**ʃ**/ and /**ʧ**/
 - d. No answer

English Pronunciation Media

Learn English Pronunciation | Vowel Sounds | 23 Lessons https://www.youtube.com/watch?v=USKrBTvgY_s

Lesson Plan 5

Lesson Topic: Sound /3/ Grade: 7 Time: 2 hours

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Lesson Objective

- 1. Students will be able to pronounce /3/ sounds correctly.
- 2. Students will be able to identify difference between / f / and / f / sounds.

Language Skills

- 1. Speaking-Practice sounds of /3/
- 2. Listening–Discrimination / \int / and / \oint /

Learning Management

1. Warm up

Time	Set up	Procedure
5 minutes	Whole class	1. Greeting
919	Word cards	-Teacher gives greetings to students and open with
RA	IARHAT M	basic conversation
		T: Good morning, student. How are you today?
		Ss: I'm great. Thank you. How about you?
		T: I'm well. Thanks.
		2. Elicit
		1. Teacher open the music for stimulate learning.
		-Teacher askes students. What do you remember from the last
		English lesson? The last sounds are /ʃ/ and /ʧ/ but today we are
		learning about $/3/$ sound.
		2. Students get word cards containing with / \int / & / 3 / sound
		such as shoe, show, shop, shot, garage, pressure, vision,

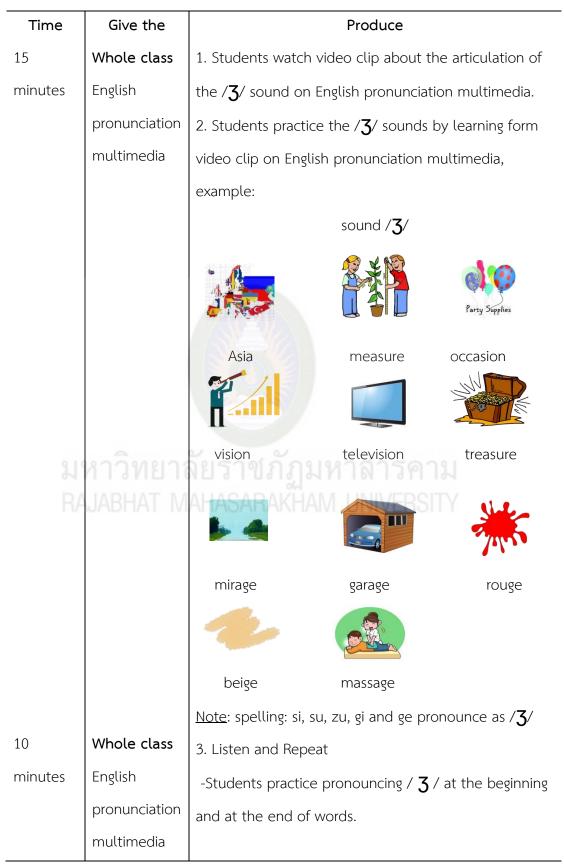
measure. Then, they have to walk around the
classroom and find words which has the same sounds.
Divide into 2 groups, each the member present their
words and the teacher check for accuracy. The teacher gives
points when they perfect pronunciation of the words. The team
with the most point is the winner.
3. Ask students to give examples of their favorite English words
that have / $3\!\!/$ in them. Students can shout out answers; teacher
should list words on the board.
4. Go over the list (Teacher reads; students repeat)
3. Introduce today's sounds /3/.
-OK, today we are going to study about the $/3/$ sounds.

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2. Presentation

Time	For the	Procedure
5 minutes	Whole class	1. Teacher introduces the steps of learning by using
		English pronunciation multimedia and describes the
		functions of the buttons on the multimedia consisted
		of the functions back, menu, home and next.
15	Pretest 10	2. The students take a pretest containing 10 items
minutes	Items	before leaning / 3 / sounds. The teacher recorded for
		evaluation purposes.
10	Labial	3. Teacher explains about manner of articulation that is
minutes	pictures /3 /	used to pronounce $/3/$ (tongue/lip placement)
		-To create the zh sound, air is forced between a wide
		groove in the center of the front of the tongue and the
		back of the tooth ridge. The sides of the blade of the
	ະວົນພວ	tongue may touch the side teeth. The lips are kept
		slightly tense, and may protrude somewhat during the
	JADHAT IV	production of the sound.
		/ʃ/ /ʒ/
		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
		-22 × 22 ))
		$\sim$ $\sim$ $//$
		Voice

3. Practice



		/3/	/3/
		the middle of a word	the end of a word
		Vi <u>si</u> on	gara <u>ge</u>
		ver <u>si</u> on	massage
		u <u>su</u> al	mira <u>ge</u>
		plea <u>su</u> re	rou <u>ge</u>
		trea <u>su</u> re	bei <u>ge</u>
		A <u>si</u> a	
		a <u>zu</u> re	
10	Give the	4. minimal pairs $/\int$ and $/3/$	
minutes	Whole class,	-Students practice minimal	pairs /ʃ/ and /ʒ/ sound.
	and work in	Pronounce all of the words	in column all of the words
	pair with	in column these include:	
	English	/ʃ/ /ʒ/	
	pronunciation multimedia	Confucian con Gleution illusion assure azur	
		dilution delusic	n
10	Give the	5. Practice Sentences	
minutes	Whole class	-Then, students practice and	d say these sentences out
	English	loud.	
	pronunciation	1. What is your final d	ecision?
	multimedia	2. He bought a luxuric	ous car.
		3. We should avoid co	onfusion.
		4. Do you watch telev	vision?
		5. You should dress ca	asually for the party.

		6.Yes, it's one of my great pleasures.
		7.The weather is usually hot in July.
		8.He gave her a foot massage.
		9. He found the treasure
		10. I see his car in his garage.
20	Give the	6. Students do exercise on English pronunciation
minutes	Whole class	multimedia.
	Exercises	-Exercise 1
		-Exercise 2
15	Post-test 10	7. Students take a post-test containing 10 items about
minutes	Items	the $/3/$ sound. The teacher recorded for evaluation
		purposes.

# 4. Wrap Up (10 minutes) Summarize what they learned.

- 4.1 Can you help me summarize what we learned today?
- 4.2 Students pronounce /3/ sounds
- 4.3 What about vocabulary?

#### 5. Material

- 5.1 Song
- 5.2 Word pictures from Evaluation Form of Student's Pronunciation
- 5.3 English pronunciation multimedia

#### **Comments and Reflections**

Exercise

# Unit 5: Sound / 3 / Name .....No..... Instruction: Choose the best answer. 1. Which sentence include the sound /3/?a. They are chocking. b. They are joking. d. Put the cherries in a dish. c. He has perfect vision. 2. Which sentence include the sound /3/?a. You can draw your own conclusion. b. Try to catch me. c. Where does she teach? d. Put the cherries in a dish. 3. Which sentence does not include the sound /3/?a. It's a pleasure to know you. b. Are you looking for treasure? c. You can draw your own conclusion. d. The judge has a white hair. 4. Which word pronounce with sound /3/?b. teacher a. leisure d. cherry c. whether 5. Which word does not pronounce with sound /3/?a. conclusion b. watch c. treasure d. pleasure 6. Which word pronounce with sound $\sqrt{3}/?$ b. preacher a. chin c. division d. joking 7. Which word does not pronounce with sound /3/?a. occasion b. pleasure

c. conclusion d. crucial

8. Which sentence include the sound /3/?

- a. There are too many questions. b. There is so much confusion.
- c. There is not one solution. d. There is no resurrection.

9. Which sentence does not include the sound /3/?

a. And the love profusion b. I have lost my illusions.

c. And the love vibration d. There is so much confusion.

10. How this sentence is pronounced? "You should dress casually for the party."

#### **English Pronunciation Media**

Learn English Pronunciation | Vowel Sounds | 23 Lessons

https://www.youtube.com/watch?v=USKrBTvgY_s

มหาวทยาลัยราชภัฏมหาสารคา A JARHAT MAHASARAKHAM LINIVERSI

# Lesson Topic: Sound / 03/ Grade: 7 Time: 2 hours

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#### Lesson Objective

- 2. Students will be able to identify difference between / f/ and / d/ sounds.

#### Language Skills

- 1. Speaking-Practice sounds of / 03/
- 2. Listening–Discrimination /f/ and /c/

#### Learning Management

# 1. Warm up

Time	Set up	Procedure
5 minutes	Whole class	1. Greeting
	Word cards	-Teacher makes greetings by asking questions
	หาวิทยาล์ JABHAT MA	T: Good morning. / Good afternoon. How are you today? Ss: I'm good. Thank you. And you?
		T: I'm very well. Thanks.
		2. Elicit
		-The teacher ask students a series of questions about
		what they remember about the spelling / ${ m I}$ /. What do
		you remember about the spelling ch ? Teacher will
		remind students to look at the ship card. What are
		some words that begin with the / ${ m I}$ / sound? What are
		some words that end with the / $t\!\!/$ sound? Students
		will respond with many ideas.

-Teacher show several word cards on the board and
give students chose the words with / $ ot\!f$ / and / $ ot\!d$ /
sounds and read them aloud.
3. Introduce today's sounds /
-OK, today we are going to study about the / ${ m d}$ /
sounds.

## 2. Presentation

Time	For	Procedure
5 minutes	Whole class	1. Teacher introduces the steps of learning by using English
		pronunciation multimedia and describes the functions of the
		buttons on the multimedia consisted of the functions back, menu,
		home and next.
15	Give the Whole	2. The students take a pretest containing 10 items before leaning
minutes	class	/d3/ sounds. The teacher recorded for evaluation purposes.
	Pretest 10 Items	HASABAKHAM LINIVERSITY
10	Give the	3. Teacher explains the "ch" / $f$ and "J"/ $d$ sounds are often
minutes	Whole class	studied together because they are made in the same part of the
	Labial	mouth and pronounced in a similar way.
	pictures / <b>ctʒ</b> /	-To make the / $c_3$ / sounds, air is stopped from leaving mouth for a
		short time. The tip of the tongue presses against the back of top
		teeth to stop air from leaving mouth. The sides of tongue press
		against the sides of upper teeth. (same as with $f/$ and $f/$ )

3. Practice

Time	For			Produce				
10	Whole class	1. Students watch a video about the articulation of the						
minutes	English	/03/ on English pronunciation multimedia.						
	pronunciatio	2. Students	practice the	e / <b>dʒ</b> / sou	unds by lea	arning form		
	n multimedia	video clip o	n English pi	ronunciatio	on multime	edia,		
		example:						
		4. Listen and	d Repeat					
		-Practice th	e voiced / <b>(</b>	<b>3</b> /sound.				
		JAN						
		jam	soldier	gra	aduate	giant		
			Ê			Λ		
10 10	Whole class,	Japan -Practice the	cage e voiced / <b>d</b>		ımp There are	jean four		
minutes	Groups	spellings of	the / <b>dʒ</b> / so	ound: g, dg	g, j, and d (	+u).		
	English pronunciatio n multimedia	g spelling giant imagine apologize	g (+e) spelling Germany German large	dg spelling fudge budge bridge	j spelling judge jump joy	d (+u) spelling educate schedule procedure		
		giraffe	charge	judge	joke	graduate		
			age		July	individual		
			gentle		June			

			[	[				
		/d <b>3</b> /	/d <b>3</b> /	/d <b>3</b> /				
		At the beginning	At the meddle	At the end				
		Jop	agent	age				
		Just	adjust	cage				
		Join	magic	large				
		Judge	enjoy	edge				
		gym	angel	badge				
		jewelry	subject	image				
		-Students practice p	pronouncing / <b>d3</b> /	sound.				
10	Whole class,	6. Minimal pairs /d	3/					
minutes	Pairs	-Students practice r	-Students practice minimal pairs /d3/sound these					
	English	include: d3/ /tJ	/					
	pronunciatio	joke chok	< compared with the second sec					
	n multimedia	gin chin						
	JABHAT M	badge batc	ot-1					
		ridge rich						
		jeep chea	ip					
		Jerry cher	ry					
10	Whole class	7. Practice Sentence	es					
minutes	English	-Students practice s	sentences that hav	ve the /d <b>3</b> /				
minutes	pronunciatio	sound and with mu						
	n multimedia	1. Just a mon						
		2. Enjoy yours						
		3. Fourth of J		_				
		4. The agent	took a jet to Japar	٦.				

		5. he likes being on stage.			
		6. Turn to the next page.			
		7. Do you like jam?			
		8. I would like to apologize.			
		9. Steve can jump very high.			
		10. Stop! It's dangerous!			
20	Whole class	8. Student do exercise on English pronunciation			
minutes	Exercises	multimedia.			
		-Exercise 1			
		-Exercise 2			
15	Whole class	9. Students take a post-test containing 10 items about			
minutes	Post-test 10	/d <b>3</b> / sounds. The teacher recorded for evaluation			
	Items	purposes.			

# 4. Wrap Up (10 minutes) Summarize what they learned.

4.1 Can you help me summarize what we learned today?

4.2 Students pronounce /d3/ sounds

4.3 What about vocabulary?

#### 5. Material

- 5.1 Song
- 5.2 Word pictures from Evaluation Form of Student's Pronunciation

5.3 English pronunciation multimedia

#### **Comments and Reflections**

# Exercise

Unit 6: Sound / ᠿ /
NameNoNo
Instruction: Choose the best answer.
1. Which word contain sound / 🕁 /?
a. college b. ship c. rock d. conclusion
2. Which word contain sound / 🕁 /?
a. leisure b. watch c. judge d. preacher
3. Which word contain sound / $dd$ /?
a. treasure b. zoo c. banana d. jealous
4. Which word does not contain sound / 🕁 /?
a. joy b. subject c. general d. illusion
5. Which word does not contain sound / 🕁 /?
a. large b. power c. message d. energy
6. Which word does not contain sound / 🕁 /?
a. stage ways b. wodge was c. jew zoo d. rich guys 7. Which sentence does not contain sound / 🕁 /?
a. I'm not saying in general but with the experiences that I've had.
b. Most kids have at least a general idea of who they are.
c. That's the general feeling among people our age.
d. I want be somebody who helps screw all the big hulks.
8. Which sentence does not contain sound / ${f d}$ /?
a. Watch your hands before having a meal.
b. He taught math but they had a general curriculum was just like he taugh
c. Generally speaking they will attack a problem.
d. These there's a whole generation of kids now.

- 9. Which sentence contain sound / ds /?
  - a. My dogs are very naughty but cute.
  - b. My first language is Japanese.
  - c. She has three dogs living in her house.
  - d. They are on that plane flying to the wood.
- 10. Which sentence contain sound /  $rac{ds}{ds}$  /?
  - a. We are preparing ourselves for the test.
  - b. Please correct your answers before handing in.
  - c. I'm majoring in psychology at Baruch College.
  - d. It is not possible to quit easily.

#### English Pronunciation Media

Learn English Pronunciation | Vowel Sounds | 23 Lessons https://www.youtube.com/watch?v=USKrBTvgY_s

#### Lesson Plan 7

#### Lesson Topic: Sound / l/ and /r/ Grade: 7 Time: 2 hours

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#### Lesson Objective

- 1. Students will be able to pronounce / l/ and /r/ sounds correctly.
- 2. Students will be able to identify difference between / l/ and /r/ sounds.

# Language Skills

- 1. Speaking-Practice sounds of / l/ and /r/
- 2. Listening–Discrimination / I/ and /r/

#### Learning Management

#### 1. Warm up

Time	For	Procedure		
5 minutes	Whole class	1. Greeting		
	Word cards	1. Teacher gives greetings with basic questions		
		T: Good morning, everyone. How are you this morning?		
	I L'IVIEI IN	Ss: Good morning, teacher. I'm very well thank you. And you?		
	IABHAT IVIA	T: I'm fine. Thank you for asking.		
		2. Elicit		
		1. Write /V on one side of the board and /r/ on the other		
		2. Ask students to give examples of their favorite English words that		
		have // and /r/ in them (students can shout out answers; teacher		
		should list words under /r/, dear /V, and dark /l/)		
		3. Go over the list (Teacher reads; students repeat)		
		3. Introduce today's sounds /l/ and /r/		
		-OK, today we are going to study about the /l/ and		
		/r/ sounds.		

# 2. Presentation

Time	For	Procedure				
5 minutes	Whole class	1. Teacher introduces the steps of learning by using				
	Pretest 10	English pronunciation multimedia and describes the				
	Items	functions of the buttons on the multimedia consisted				
		of the functions back, menu, home and next.				
15 minutes	Labial	2. The students have a pretest which				
	pictures /l/	containing 10 items before leaning /l/ and /r/ sounds.				
	and /r/	The teacher recorded for evaluation purposes.				
		3. Teacher explains about manner of articulation that				
		is used to pronounce /l/ and /r/ (tongue/lip				
		placement)				
		-To make the /l/ sound, the tongue comes forward,				
		and the tip of the tongue presses against the roof of				
	າວົນພາວວັ	the mouth just behind the teeth, or sometimes				
	I J VIEI I N	comes through the teeth				
	IABHAT IVIA	-To make the /r/ sound, the tip of the tongue is				
		down while the back/mid part of the tongue raises.				
		The back/mid part of the tongue presses against the				
		insides of the top teeth, like this.				
		/\/ /r/				

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3. Practice

Time	Give the		Produce							
10	Whole class	1. Students watch video clip about the articulation of the /V and /r/ $$								
minutes	English	on English pronunciation multimedia.								
	pronunciation	2. Students practice the // and /r/ sounds by learning form video								
	multimedia.	dip on English pronunciation multimedia. example:								
		3. Listen and Repeat								
		-Practice the voiced	-Practice the voiced /l/ sound.							
		🗢 🚈								
		lips lak	ke light	leaf						
		circle	milk ba	all						
	งาวิทยาล์	-Students practice th	ne voiced /l/ and s	ound						
	IARHAT MA	//	/V 2 5 T	///						
		At the beginning	At the meddle	At the end						
		like	circle	pull						
		lip	milk	tall						
		laugh	help	pool						
		long	whole	ball						
		less	puddle	fall						
		large	family	will						
		low		all						
		learn								
		black								

		-Practice the voiced /r/ sound.					
		Robot	rabb	it rain	river		
		ž		*			
10	Whole class		. 🦪		0		
minutes	English	road	rur	n bear	apricot		
	pronunciation	-Student	s practice t	he voiced /l/ an	d sound		
	multimedia	,	/r/	/r/	/r/		
		At the	beginning	At the	At the end		
				meddle			
		r	ed	sorry	car		
		ri	ght	carry	father		
		W	rong	bring	mother		
		r	ing	caring	singer		
	N I JVIEI IG	write rice		worry	star		
	JABHAT IVI/			boring	teacher		
		re	ose	cry	far		
10	Give the	4. minim	al pairs /l/	and /r/	11		
minutes	Whole class,	-Student	s practice r	minimal pairs /l/	and /r/sound		
	and work in	these inc	clude:				
	Pairs	/\/	/ r/				
	English	alive	arrive				
	pronunciation	fly	fry				
	multimedia	light	right				
		long	wrong				
		collect	correct				

		glass grass
		lead read
		play pray
		lock rock
		led red
10	Give the	5. Practice Sentences
minutes	Whole class	-Then, students practice sentences that have the /l/
	English	and /r/with multimedia.
	pronunciation	1. Turn <b>right</b> when the <b>light</b> turns green.
	multimedia	2. I like to learn languages.
		3. Jerry likes jelly and bread.
		4. I left my key in the lock.
		5. I write with my right hand.
		6. There is a lot of <b>light</b> in this room.
20 81 81 81	Whole class	<ul> <li>7. Your answer is correct.</li> <li>8. He's the leader of a major company.</li> <li>6. Student do exercise on English pronunciation</li> </ul>
minutes	Exercises	multimedia.
		-Exercise 1
		-Exercise 2
15	Whole class	7. Students take a post-test containing
minutes	Post-test 10	10 items about /l/ and /r/ sounds. The teacher
	Items	recorded for evaluation purposes.
		•

# 4. Wrap Up (10 minutes) Summarize what they learned.

4.1 Can you help me summarize what we learned today?

4.2 Students pronounce /l/ and /r/ sounds

4.3 What about vocabulary?

## 5. Material

5.1 Word pictures

5.2 White board from Evaluation Form of Student's Pronunciation

5.3 English pronunciation multimedia

# **Comments and Reflections**

•••••			 		
•••••	••••••		 ••••••		•••••
•••••	•••••				
	หาวิทย				
		1.1.1.1.0.0	N.A. 1 1N.11N		
•••••	•••••	•••••	 •••••	••••••	

# Exercise

Unit 7	7: Sound / l / and / r /
Name	No
Instruction: Choose the best answ	/er.
1. Which sentence contain /l/?	
a. She is beautiful!	b. This page is different.
c. You need boundary.	d. Did you break the vase?
2. Which sentence contain /l/?	
a. I don't think it's a good id	lea. b. I run twice a week.
c. He is very healthy.	d. Do you understand?
3. Which sentence contain /r/?	
a. What is your last name?	b. This line is imaginary.
c. I was at home until 8:00 p	om. d. I'll go get them.
4. Which sentence contain /r/?	
a. I will go home soon.	b. She has been home since last week.
c. Children grow up fast.	d. The chief asked me to go home.
5. Which word does not contain /l	/?
a. clown	b. child
c. problem	d. crazy
6. Which word does not contain $/l$	/?
a. lamb	b. sugar
c. example	d. clown
7. Which word does not contain /r	/?
a. break	b. force
c. could	d. freeze

- 8. Which word does not contain /r/?
  - a. worry b. college
  - c. pronunciation d. letter

9. Which word contain /r/?

- a. challenge b. lice
- c. belly d. force
- 10. Which word contain /l/?
  - a. example b. bruise
  - c. party d. correct

# English Pronunciation Media

Learn English Pronunciation | Vowel Sounds | 23 Lessons https://www.youtube.com/watch?v=USKrBTvgY_s

# Assessment of learning activities

Please respond to the following questions by placing a check mark (/) in the answer box that corresponds to your response and/or fill in the blank where indicated.

- -1 = improper
- 0 = usable
- 1 = appropriate

Evaluation lists	Levels of Opinions		
	-1	0	1
1. Summary			
1.1 Correctness			
1.2 Consistent with the indicators			
1.3 Suitable for level of learners			
1.4 Learning period is suitable for contents			
1.5 Clear, no confusion and interesting			
2. Indicators	ດວະ		
2.1 Authentic Assessment			
2.2 Suitable for ages of learners	ROLLI		
2.3 Able to measure the behaviors			
2.4 Precise and simple			
2.5 Cover knowledge, moral, ethics and values			
3. learning standards			
3.1 Student-centered learning			
3.2 Teachers advise and assist learners			
3.3 clear, not confusing, interesting			
3.4 Learning period is suitable for contents			
3.5 Consistent with the purpose			

Evaluation lists	Levels of Opinions		
	-1	0	1
4. Learning activities			
4.1 Appropriate sequence of activities			
4.2 Consistent with learning standards			
4.3 Consistent with indicators			
4.4 Appropriate time of teaching			
4.5 Leaners participate in activities			
5. Media, Materials and Learning space			
5.1 Consistent with learning standards			
5.2 Response to indicators result			
5.3 Learners patriciate in using media			
5.4 Save time for activities			
5.5 Motivate learners			
6. Measurement and evaluations	ดาย		
6.1 Consistent with learning standards			
6.2 Response to indicators result	กอบาร		
6.3 Use appropriate measuring tools			
6.5 Evaluates and learning activities are parallel			
6.5 Encourage self-learning to learners			
Comments			L
Signature			
()			
Date time:			

# Instructional plan evaluation

Content	Experts opinion's mean score for each instruction plan						
	EP1	EP2	EP3	EP4	EP5	Total	IOC
1. Summary							
1.1 Correctness	+1	+1	+1	+1	+1	5	1
1.2 Consistent with the indicators	+1	+1	+1	+1	+1	5	1
1.3 Suitable for level of learners	+1	+1	+1	+1	+1	5	1
1.4 Learning period is suitable for contents	0	+1	+1	+1	0	3	0.6
1.5 Clear, no confusion and interesting	+1	0	+1	+1	0	3	0.6
2. Indicators							
2.1 Authentic Assessment	+1	+1	+1	+1	0	4	0.8
2.2 Suitable for ages of learners	0	+1	+1	+1	+1	4	0.8
2.3 Able to measure the behaviors	+1	+1	+1	+1	0	4	0.8
2.4 Precise and simple	0	+1	+1	+1	0	3	0.6
2.5 Cover knowledge, moral, ethics and	+1	+1	+1	0	+1	4	0.8
values	เกิก	9 1 9 8	าสา	รดา	191		
3. learning standards	1010	211	1.64	1 3 1 1	181		
3.1 Student-centered learning	+1	+1	+1	-+1S	+1	5	1
3.2 Teachers advise and assist learners	+1	+1	+1	+1	+1	5	1
3.3 clear, not confusing, interesting	+1	+1	+1	+1	+1	5	1
3.4 Learning period is suitable for contents	+1	0	+1	+1	+1	4	0.8
3.5 Consistent with the purpose	+1	+1	+1	0	+1	4	0.8
4. Learning activities							
4.1 Appropriate sequence of activities	+1	+1	+1	+1	+1	5	1
4.2 Consistent with learning standards	0	+1	+1	+1	+1	4	0.8
4.3 Consistent with indicators	+1	+1	0	+1	+1	4	0.8
4.4 Appropriate time of teaching	+1	0	+1	+1	0	3	0.6
4.5 Leaners participate in activities	+1	+1	0	+1	+1	4	0.8

# The topic of Family Relationships (For expert)

Content	Experts opinion's mean score for each instruction plan						
	EP1	EP2	EP3	EP4	EP5	Total	IOC
5. Media, Materials and Learning space							
5.1 Consistent with learning standards	+1	+1	+1	+1	+1	5	1
5.2 Response to indicators result	+1	+1	+1	+1	+1	5	1
5.3 Learners patriciate in using media	+1	+1	+1	+1	+1	5	1
5.4 Save time for activities	+1	+1	+1	+1	+1	5	1
5.5 Motivate learners	+1	+1	+1	+1	+1	5	1
6. Measurement and evaluations							
6.1 Consistent with learning standards	+1	+1	+1	0	+1	4	0.8
6.2 Response to indicators result	+1	0	+1	+1	+1	4	0.8
6.3 Use appropriate measuring tools	+1	+1	+1	+1	+1	5	1
6.5 Evaluates and learning activities are parallel	+1	+1	+1	+1	+1	5	1
6.5 Encourage self-learning to learners	+1	+1	+1	+1	+1	5	1

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The English Pronunciation Multimedia

RAJABHAT MAHASARAKHAM UNIVERSITY

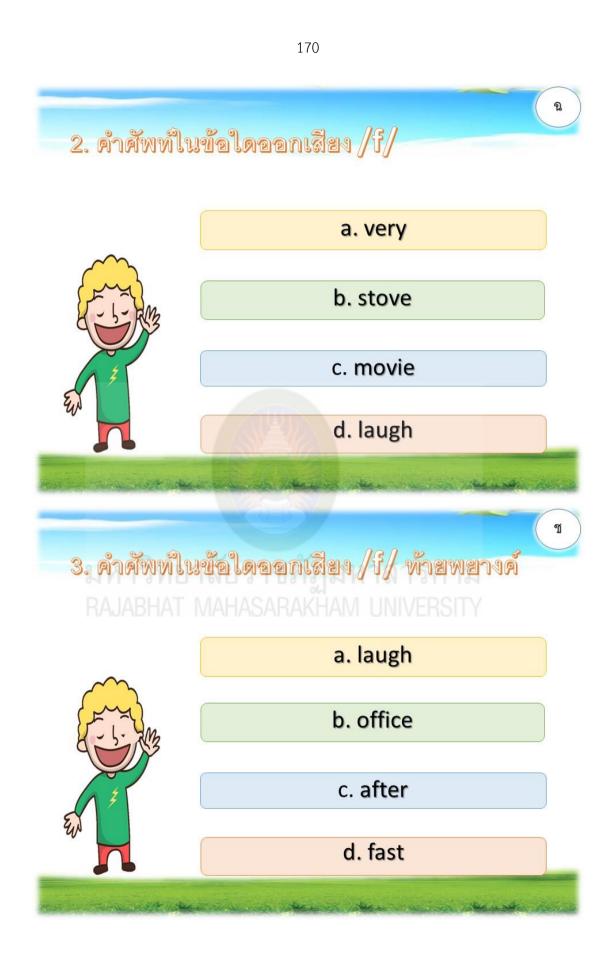


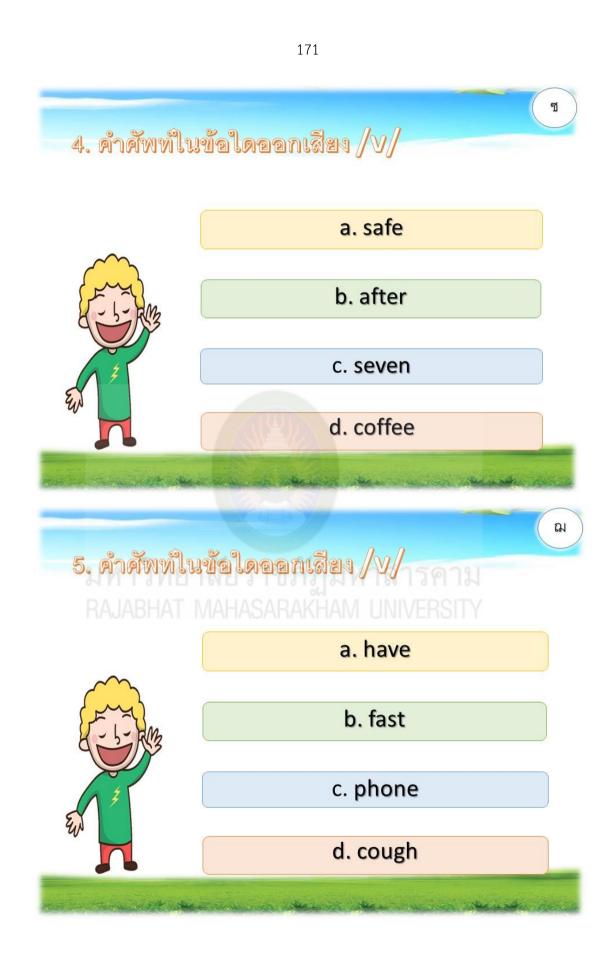
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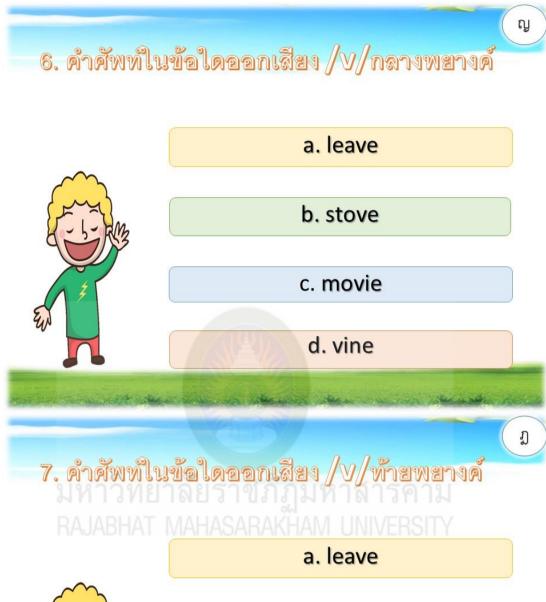


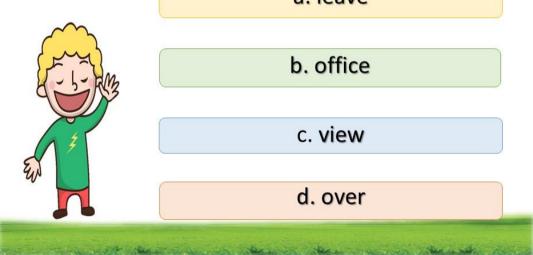














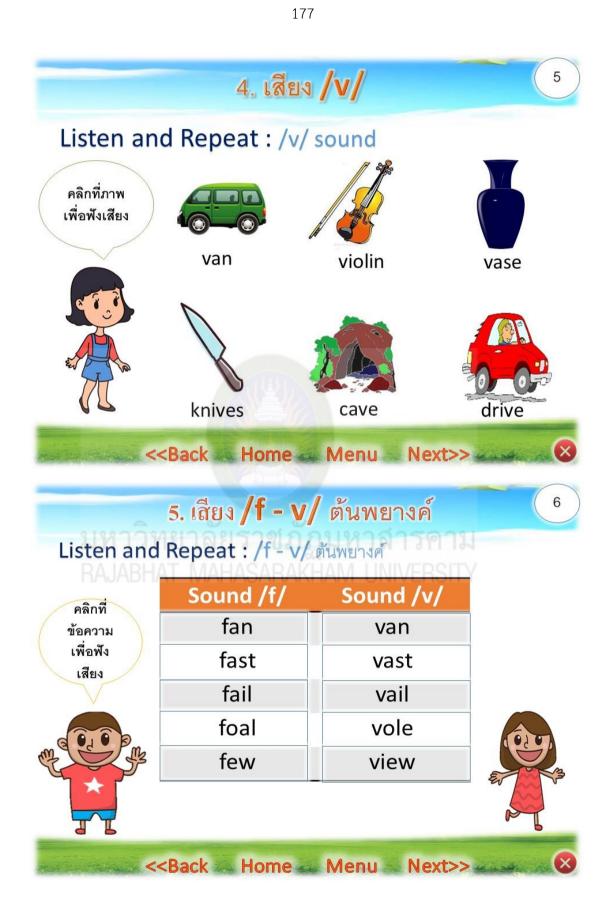


## 1. หน่วยเสียง **f-v**

เสียงพยัญชนะ /f/ and /V/ (labio-dental fricatives)







isten and			-
	Sound /f/	Sound /v/	
คลิกที่ ข้อความ	safe	oven	
ื่อฟังเสียง	offer	over	
	after	seven	
	office	heavy	â
L Sta	coffee	movie	
* [			er /
			R
J.L	Deelk Home	Manu Mautos	
	(453)	Menu Next>>	
	7. เสียง <b>/f - v</b> /	ท้ายพยางค์	
	(453)	ท้ายพยางค์	
	7. เสียง <b>/f - v/</b> Repeat : /f - v/	<b>ท้ายพยางค์</b> ท้ายพยางค์	A Y Y
ten and I เลิกที่	7. เสียง <b>/f - v</b> /	<b>ท้ายพยางค์</b> ท้ายพยางค์	
ten and I ลิกที่ ความ	7. เสียง <b>/f - v/</b> Repeat : /f - v/ Sound /f/	<mark>ท้ายพยางค์</mark> ท้ายพยางค์ Sound /v/	
sten and l คลิกที่ อความ	7 <mark>. เสียง <b>/f - v/</b> Repeat : /f - v/ Sound /f/ if</mark>	<mark>ท้ายพยางค์</mark> ท้ายพยางค์ Sound /v/ leave	
ten and I คลิกที่ อความ	7. เสียง <b>/f - v</b> / Repeat : /f - v/ <u>Sound /f/</u> if off	<mark>ท้ายพยางค์</mark> ท้ายพยางค์ Sound /v/ leave have	
	7. เดียง <b>/f - v</b> Repeat : /f - v/ <u>Sound /f/</u> if off half	<mark>ท้ายพยางค์</mark> ท้ายพยางค์ Sound /v/ leave have move	

	ข้อสังเ	กต	g
ph และ gh จะ	ะออกเสียง <b>/f/</b>		
	-ph-	-gh	
คลิกที่ ข้อความ	phone	rough	
เพื่อฟังเสียง	photo	tough	
	nephew	laugh	
	physical	cough	
See Sta	phrase	enough	
			-
	Back Home 8. คู่เทียบเสีย		
	8. กู่เทียบเสีย		10
	8. กู่เทียบเสีย	19/ <b>f - v/</b>	10
Listen and RAJABH	8. คู่เทียบเสีย Repeat : minim	ı a / <b>f - v/</b> nal pairs /f - v/	10
Listen and RAJABHA	<mark>8. ក្ដូំរោីខបតេីខ</mark> Repeat : minim /f/	19 / <b>f - v/</b> hal pairs /f - v/ /v/	10
Listen and คลิกที่ ข้อความ	<mark>8. คู่เทียบเสีย</mark> Repeat : minim /f/ safe	nal pairs /f - v/ /v/ save	10
Listen and คลิกที่ ข้อความ	<mark>8. คู่เทียบเสีย</mark> Repeat : minim /f/ safe leaf	nal pairs /f - v/ hal pairs /f - v/ /v/ save leave	10
Listen and คลิกที่ ข้อความ	<mark>8. คู่เทียบเสีย</mark> Repeat : minim /f/ safe leaf half	hal pairs /f - v/ /v/ save leave have	
Listen and คลิกที่ ข้อความ เพื่อฟังเสียง	<mark>8. คู่เทียบเสีย</mark> Repeat : minim /f/ safe leaf half belief	hal pairs /f - v/ /v/ save leave have belive	10



คำสั่ง ด	10. Exercise 1 ลิกฟังประโยคที่กำหนดแล้วเลือกคำศัพท์ที่ได	มี ถือเว เป็ จะัก	ากตั้ง	1
	ประโยค		ำศัพ	7
คลิกที่ ข้อความ	1. I'm trying to my money.	save	/	safe
เพื่อฟัง เสียง	2. He is in the	fan	/	van
	3.A glass of water will make you better.	veal	/	feel
	4. He is handsome.	very	/	ferry
	5. If you ate too much, you would get	vat	/	fat
Alg.	<	ext>>	-	An inte

# 10. Exercise 1

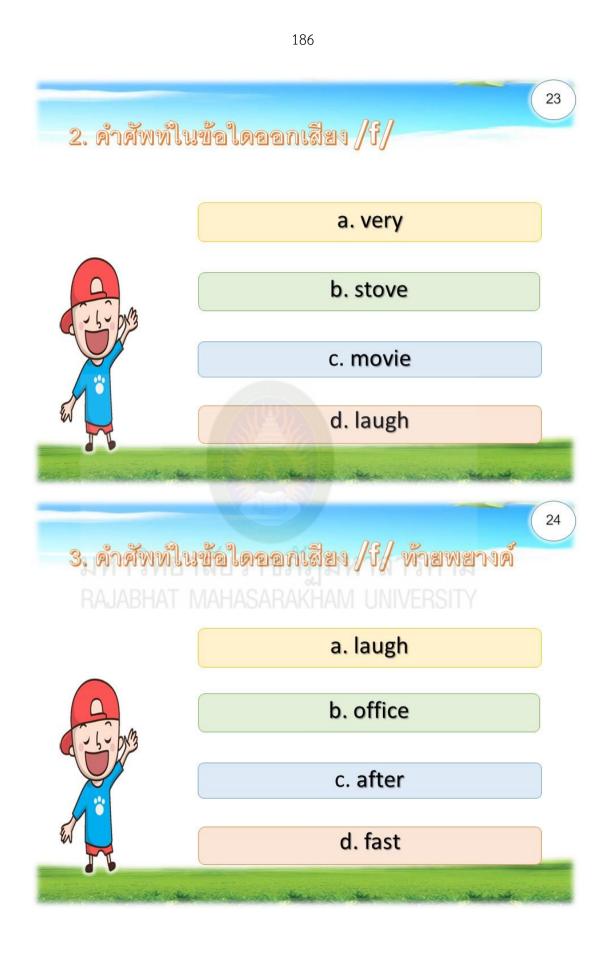
คลิกที่	JABHAI MAHAประโยคAKHAM UNIVE	RSITY	ำศัพ	ท์
เ้อความ เพื่อฟัง	6. If past seven.	have	/	half
เสียง	7. I hope the weather will betomorrow.	fine	/	vine
	8. I in Bangkok.	life ×	/	live
	9. The cows us milk.	give	/	gif
R	10. A cheetah runs asas any animal.	vast	/	fast



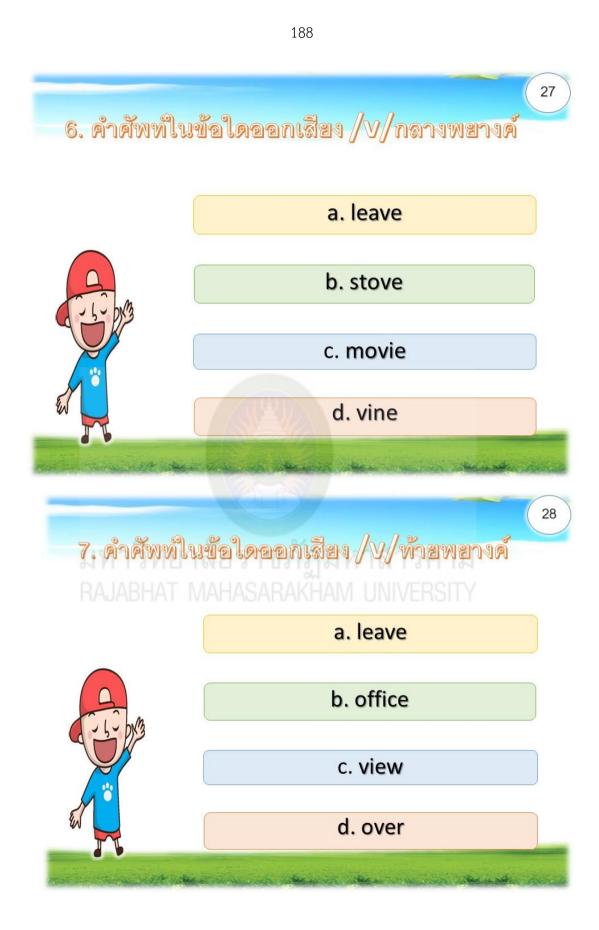


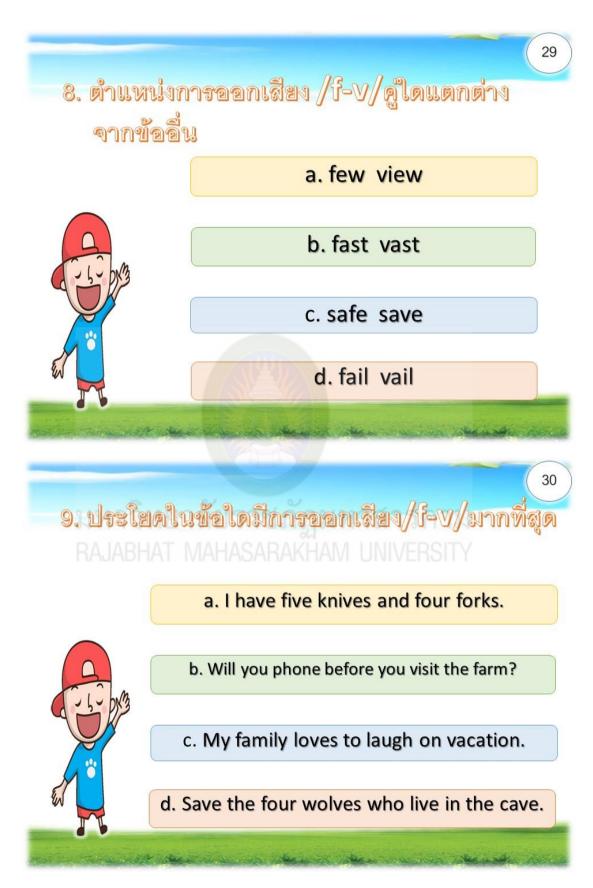










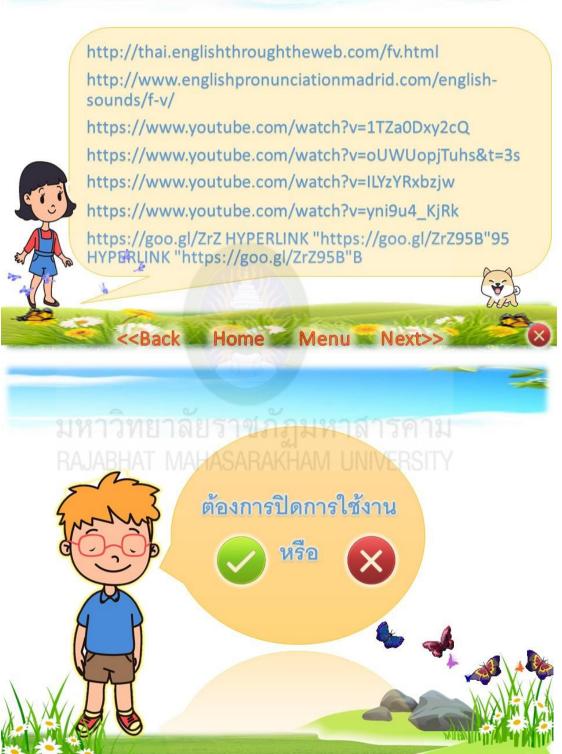






## เอกสารอ้างอิง

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APPENDIX C

## English Pronunciation Test

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#### แบบทดสอบการออกเสียง (English Pronunciation Test)

<u>คำชี้แจง</u> ให้นักเรียนทำเครื่องหมาย x ทับตัวอักษร a, b, c, หรือ d หน้าคำตอบที่ถูกที่สุดเพียงข้อเดียว

- 1. คำศัพท์ในข้อใดออกเสียง /f/
  - a. vest b. vase
  - c. save d. face
- 2. คำในข้อใดออกเสียงเหมือนคำที่ขีดเส้นใต้ <u>ph</u>one
  - a. office b. leave
  - c. view d. drive
- 3. คำศัพท์ในข้อใดออกเสียง /v/
  - a. safe b. seven
  - c. after d. coffee
- 4. ประโยคในข้อใดมีการออกเสียง /f-v/ มากที่สุด
  - a. I have five knives and four forks.
  - b. Will you phone before you visit the farm?
  - c. My family loves to laugh on vacation.
  - d. Save the four wolves who live in the cave
- 5. ข้อใดเป็น minimal pairs /f / และ /v/
  - a. fast-save b. few-very
  - c. fan-van d. knife-lives
- 6. ข้อใดออกเสียง voiceless /heta/
  - a. breathe b. those
  - c. think d. they
- 7. ข้อใดออกเสียง voice / ð /
  - a. bath b. think
  - c. brother d. three

- 8. เสียง th ในข้อใดออกเสียงเหมือน brother
  - a. three b. other
  - c. thank d. teeth
- 9. ข้อใดเป็น minimal pairs / $\theta$ / /ð/
  - a. thigh–thy
  - b. think-thank
  - c. brother-father
  - d. thief–north
- 10. คำในข้อใดออกเสียง /s/
  - a. eyes b. sink
  - c. raise d. buses
- 11. คำในข้อใดออกเสียง /z/
  - a. place b. close
  - c. sink d. rose
- 12. คำในข้อใดที่มีเสียง /iz/
  - a. place b. face c. houses d. loose
- 13. ข้อใดเป็น minimal pairs /s/ /z/
  - a. Sue-zoo
  - b. sink–zero
  - c. loose-zoom
  - d. sip-zinc

#### 14. คำศัพท์ในข้อใดออกเสียง /ʃ/

- a. chair b. share
- c. change d. choose

### 15. คำในข้อใดออกเสียงเหมือนคำที่ขีดเส้นใต้ ac<u>ti</u>on

- a. show b. cheese
- c. chew d. cheap

#### คำศัพท์ในข้อใดออกเสียง / **ป**/

- a. shop b. share
- c. chair d. sheep

### 17.ข้อใดเป็น minimal pairs /ʃ / และ /ʧ /

- a. share-choose
- b. shoes-cheese
- c. ship-chip
- d. sheep-chair

#### 18. คำศัพท์ในข้อใดออกเสียง /3/

- a. shop b. show
- c. chess d. television

### 19. ตำแหน่งการออกเสียง /**3**/ ในข้อใดที่เหมือนกับ treasure

- a. massage b. usual
- c. garage d. rouge

#### 20. คำในข้อใด**ไม่**ออกเสียง /**3**/

- a. beige b. measure
- c. occasion d. shoes

## 21. ข้อใดเป็น minimal pairs /**ʃ**/ และ /**ʒ**/

- a. vision-dilution
- b. pressure-pleasure
- c. garage-rouge
- d. position-pleasure

#### 22. คำศัพท์ในข้อใดออกเสียง /d**3**/

- a. soldier b. chair
- c. sandwich d. sheep

#### 23. ข้อใดออกเสียง /d**3**/ เหมือนกับ gym

- a. gun b. gum
- c. goat d. giant

#### 24. ข้อใดออกเสียง /d**3**/ เหมือนกัน

- a. orange–soldier
- b. jump–yam
- c. cheer-enjoy
- d. sheep-jeep

#### 25. ข้อใดเป็น minimal pairs /d**3**/ และ /tʃ/

- a. jam-yam
- b. jeep-sheep
- c. Jerry-cherry
- d. joke–yolk

### 26. คำศัพท์ในข้อใดออกเสียง /l /

- a. rabbit b. right
  - c. read d. light
- 27. ข้อใดออกเสียง /l/ ท้ายพยางค์
  - a. like b. long
  - c. fall d. lips

#### 28. ตำแหน่งการออกเสียง /l / ข้อใดเหมือนกัน

- a. family-milk b. lead-pool
- c. ball-help d. circle-tall

- 29. คำศัพท์ในข้อใดออกเสียง /r /
  - a. leaf b. lake
  - c. read d. light
- 30. ข้อใดเป็น minimal pairs /l/ และ / r /
  - a. glass-grass
  - b. write-right
  - c. Jerry-cherry
  - d. light–lice



## แบบประเมินความสอดคล้องระหว่างข้อสอบกับจุดประสงค์การเรียนรู้

## สำหรับผู้เชี่ยวชาญ

**คำขี้แจง** ให้ท่านพิจารณาว่าข้อสอบที่สร้างขึ้น สอดคล้องกับจุดประสงค์การเรียนรู้หรือไม่ โดยการ พิจารณาให้น้ำหนักดังนี้

ให้คะแนน +1 หมายถึง แน่ใจว่าข้อสอบวัดจุดประสงค์/เนื้อหานั้น

ให้คะแนน 0 หมายถึง ไม่แน่ใจว่าข้อสอบวัดจุดประสงค์/เนื้อหานั้น

ให้คะแนน -1 หมายถึง แน่ใจว่าข้อสอบไม่วัดจุดประสงค์/เนื้อหานั้น

จุดประสงค์การเรียนรู้	ข้อสอบ	น้ำหนัก		ก	ข้อเสนอแนะ
		+1	0	-1	00001000000
นักเรียนสามารถออก	1. คำศัพท์ในข้อใดออกเสียง /f/				
เสียง /f/ ได้อย่าง	a. vest b. vase				
ถูกต้อง	c. save d. face				
นักเรียนสามารถออก	<ol> <li>คำในข้อใดออกเสียงเหมือนคำที่ขีด</li> </ol>				
เสียง /f/ ได้อย่าง	เส้นใต้ <u>ph</u> one				
ถูกต้อง	a. office b. leave	0.0	~		
	c. view d. drive		19 DC	Ц ТV	
นักเรียนสามารถออก	3. คำศัพท์ในข้อใดออกเสียง /v/	IVE	10	Ĩ	
เสียง /v/ ได้อย่าง	a. safe b. seven				
ถูกต้อง	c. after d. coffee				
นักเรียนสามารถออก	4. ประโยคในข้อใดมีการออกเสียง /f-				
เสียง /f/-/v/ ได้อย่าง	∨⁄ มากที่สุด				
ถูกต้อง	a. I have five knives and four				
	forks.				
	b. Will you phone before you				
	visit the farm?				

จุดประสงค์การเรียนรู้	ข้อสอบ	น้ำหนัก			ข้อเสนอแนะ	
ข้ณการยงผม เรรากหรื	ับยัสยับ	+1	0	-1	งอเยหอแหร	
	c. My family loves to laugh on					
	vacation.					
	d. Save the four wolves who					
	live in the cave					
นักเรียนจะสามารถ	5. ข้อใดเป็น minimal pairs /f /					
ระบุความแตกต่าง	และ /v/					
ระหว่างเสียง/ f / - /	a. fast-save					
<ul> <li>/ ได้ถูกต้อง</li> </ul>	b. few-very					
	c. fan-van					
	d. knife-lives					
นักเรียนสามารถออก	6. ข้อใดออกเสียง vo <mark>ic</mark> eless /θ/					
เสียง / <b>0</b> / ได้อย่าง	a. breathe b. those					
ถูกต้อง	c. think d. they	115	ົ	191		
นักเรียนสามารถออก	7. ข้อใดออกเสียง voice / ð /		DC	TV		
เสียง /ð/ ได้อย่าง	a. bath b. think	IVL	no			
ถูกต้อง	c. brother d. three					
นักเรียนสามารถออก	8. เสียง th ในข้อใดออกเสียงเหมือน					
เสียง /ð/ ได้อย่าง	bro <u>th</u> er					
ถูกต้อง	a. three b. other					
	c. thank d. teeth					
นักเรียนจะสามารถ	9. ข้อใดเป็น minimal pairs / <b>Ө</b> / -					
ระบุความแตกต่าง	/ð/					
ระหว่างเสียง / <b>0</b> / -	a. thigh–thy b. think–thank					
/ð/ ได้ถูกต้อง	c. brother-father d. thief-north					

0	$\sim$	$\sim$
Ζ	υ	U

จุดประสงค์การเรียนรู้	ข้อสอบ	น้ำหนัก			ข้อเสนอแนะ
ขุตบระสงคุก เรรอนรู	งอยอก	+1	0	-1	<u> </u>
นักเรียนสามารถออก	10. คำในข้อใดออกเสียง /s/				
เสียง /s/ ได้อย่าง	a. eyes b. sink				
ถูกต้อง	c. raise d. buses				
นักเรียนสามารถออก	11. คำในข้อใดออกเสียง /z/				
เสียง /z/ ได้อย่าง	a. place b. close				
ถูกต้อง	c. sink d. rose				
นักเรียนสามารถออก	12. คำในข้อใดที่มีเสียง /iz/				
เสียง /s/-/z/ ได้อย่าง	a. place b. face				
ถูกต้อง	c. houses d. loose				
นักเรียนจะสามารถ	13. ข้อใดเป็น minimal pairs /s/-				
ระบุความแตกต่าง	/z/				
ระหว่างเสียง /s/ - /z/	a. Sue-zoo b. sink-zero				
ได้ถูกต้อง	c. loose-zoom d. sip-zinc	115	പ	191	
นักเรียนสามารถออก ส. <b>ใ</b> นวันว่	14. คำศัพท์ในข้อใดออกเสียง / <b>]</b> /	IVE	RS	TY	
เสียง /ʃ/ ได้อย่าง *	a. chair b. share				
ถูกต้อง	c. change d. choose				
นักเรียนสามารถออก	15. คำในข้อใดออกเสียงเหมือนคำที่				
เสียง / <b>]</b> / ได้อย่าง	ขีดเส้นใต้ ac <u>ti</u> on				
ถูกต้อง	a. show b. cheese				
	c. chew d. cheap				
นักเรียนสามารถออก	16. คำศัพท์ในข้อใดออกเสียง / <b>ปุ</b> ้/				
เสียง / <b>ป</b> / ได้อย่าง	a. shop b. share				
ถูกต้อง	c. chair d. sheep				

จุดประสงค์การเรียนรู้	ข้อสอบ	นี้	้ำหนั	ึก	ข้อเสนอแนะ	
งุตบ เะสงคก กรรยน เ	งอยอบ	+1	0	-1	งดเฉนดแนะ	
นักเรียนจะสามารถ	17.ข้อใดเป็น minimal pairs / <b>∫</b> /					
ระบุความแตกต่าง	และ / <b>ปุ</b> /					
ระหว่างเสียง /ʃ / และ	a. share-choose					
/ <b>ปุ</b> /ได้ถูกต้อง	b. shoes-cheese					
	c. ship-chip					
	d. sheep-chair					
นักเรียนสามารถออก	18. คำศัพท์ในข้อใดออกเสียง / <b>3</b> /					
เสียง / <b>3</b> / ได้อย่าง	a. shop b. show					
ถูกต้อง	c. chess d. television					
นักเรียนสามารถออก	19. ต <mark>ำแหน่งกา</mark> รออก <mark>เสียง / 3</mark> / ในข้อ					
เสียง / <b>3</b> / ได้อย่าง	ใดที่เหม <b>ือนกับ</b> treasure					
ถูกต้อง	a. massage b. usual					
มหาวิท	c. garage d. rouge	้าร	ଜୀ	าม		
นักเรียนสามารถออก	20. คำในข้อใดไม่ออกเสียง / <b>3</b> /	IVE	RS	TY		
เสียง / <b>3</b> / ได้อย่าง	a. beige b. measure					
ถูกต้อง	c. occasiond. shoes					
นักเรียนจะสามารถ	21. ข้อใดเป็น minimal pairs /ʃ/					
ระบุความแตกต่าง	และ /3/					
ระหว่างเสียง / <b>]</b> / และ	a. vision-dilution					
/3/ ได้ถูกต้อง	b. pressure-pleasure					
	c. garage-rouge					
	d. position-pleasure					

จุดประสงค์การเรียนรู้	ข้อสอบ	น้	้ำหนั	ึก	ข้อเสนอแนะ
ภ์ผการยุงผุก กรรกหรื	ับยุยุยุ ป	+1	0	-1	<u> </u>
นักเรียนสามารถออก	22. คำศัพท์ในข้อใดออกเสียง /d <b>3</b> /				
เสียง /d <b>3</b> / ได้อย่าง	a. soldier b. chair				
ถูกต้อง	c. sandwich d. sheep				
นักเรียนสามารถออก	23. ข้อใดออกเสียง /d <b>3</b> / เหมือนกับ				
เสียง /d <b>3</b> / ได้อย่าง	gym				
ถูกต้อง	a. gun b. gum				
	c. goat d. giant				
นักเรียนสามารถออก	24. ข้อใดออกเสียง /d <b>3</b> / เหมือนกัน				
เสียง /d <b>3</b> / ได้อย่าง	a. orange-soldier				
ถูกต้อง	b. jump-y <mark>a</mark> m				
	c. cheer-enjoy				
	d. sheep-jeep				
นักเรียนจะสามารถ	25. ข้อใดเป็น minimal pairs /d <b>3</b> /	กร	ଜୀ	111	
ระบุความแตกต่าง	และ /t <b>ʃ</b> /	IVE	RS	TY	
ระหว่างเสียง /d <b>3</b> /	a. jam-yam b. jeep-sheep				
และ /t <b>ʃ</b> /ได้ถูกต้อง	c. Jerry-cherry d. joke–yolk				
นักเรียนสามารถออก	26. คำศัพท์ในข้อใดออกเสียง /l /				
เสียง /l/ ได้อย่าง	a. rabbit b. right				
ถูกต้อง	c. read d. light				
นักเรียนสามารถออก	27. ข้อใดออกเสียง /l/ ท้ายพยางค์				
เสียง /l/ ได้อย่าง	a. like b. long				
ถูกต้อง	c. fall d. lips				

จุดประสงค์การเรียนรู้	ข้อสอบ		้ำหน้เ	ก	ข้อเสนอแนะ
ภัณก รอยงมาม เรยรก หรื	19919.0	+1	0	-1	00001200620
นักเรียนสามารถออก	28. ตำแหน่งการออกเสียง /l / ข้อใด				
เสียง /l/ ได้อย่าง	เหมือนกัน				
ถูกต้อง	a. family-milk b. lead–pool				
	c. ball–help d. circle–tall				
นักเรียนสามารถออก	29. คำศัพท์ในข้อใดออกเสียง /r /				
เสียง /r/ ได้อย่าง	a. leaf b. lake				
ถูกต้อง	c. read d. light				
นักเรียนจะสามารถ	30. ข้อใดเป็น minimal pairs /l/				
ระบุความแตกต่าง	และ / r /				
ระหว่างเสียง /l/ และ	a. glass-grass b. write-right				
/r/ได้ถูกต้อง	c. Jerry-cherry d. light-lice				

ข้อเสนอแนะ	_			
มห	าาวทยาล	ายราชภฏ	มหาสารค	าาม
RA.	JABHAT M	AHASARAKH	AM UNIVER	SITY

ลงชื่อ	ผู้ประเมิน
(	)

			,				,	I
Achieveme	Opinion of experts				Tota			
nt test item	Expert	Expert	Expert	Expert	Expert		IOC	Translation
The test term	1	2	3	4	5	(		
1	1	1	1	1	1	5	1.00	usable
2	1	1	1	1	1	5	1.00	usable
3	1	1	1	1	1	5	1.00	usable
4	1	0	1	0	1	3	0.60	usable
5	1	1	1	1	1	5	1.00	usable
6	1	1	1	1	1	5	1.00	usable
7	1	1	1	1	1	5	1.00	usable
8	1	1	1	1	1	5	1.00	usable
9	1	1	1	1	1	5	1.00	usable
10	1	1	1	1	1	5	1.00	usable
11	าวีท	ะกาลัย	5191	ก้าม	หาส	5	1.00	usable
12 _{RA}	ABHAT	0	ASAR	AKHAI	1	4	0.80	usable
13	1	1	1	1	1	5	1.00	usable
14	1	1	1	1	1	5	1.00	usable
15	1	1	1	1	1	5	1.00	usable
16	1	1	1	1	1	5	1.00	usable
17	1	1	1	1	1	5	1.00	usable
18	1	1	1	1	1	5	1.00	usable
19	1	1	1	1	1	5	1.00	usable
20	1	0	1	1	1	4	0.80	usable
21	1	1	1	1	1	5	1.00	usable
								(continued)

Table C.1 The result of the efficiency of the achievement test checked by five experts 

(continued)

#### Table C.1 (continued)

Achieveme	Opinion of experts							
nt test item	Expert	Expert	Expert	Expert	Expert	Tota	IOC	Translation
ni test item	1	2	3	4	5	l		
22	1	1	1	1	1	5	1.00	usable
23	1	1	1	1	1	5	1.00	usable
24	1	1	1	1	1	5	1.00	usable
25	1	1	1	1	1	5	1.00	usable
26	1	1	1	1	1	5	1.00	usable
27	1	1	1	1	1	5	1.00	usable
28	1	1	1	1	1	5	1.00	usable
29	1	1	1	1	1	5	1.00	usable
30	1	1	1	1	1	5	1.00	usable

มหาวิทยาลัยราชภัฏมหาสารคาม RAJABHAT MAHASARAKHAM UNIVERSITY

Items	Р	R	Result	ltems	Ρ	R	Result
1	0.75	0.38	usable	16	0.70	0.52	usable
2	0.75	0.55	usable	17	0.71	0.47	usable
3	0.79	0.45	usable	18	0.71	0.64	usable
4	0.79	0.29	usable	19	0.63	0.65	usable
5	0.42	0.77	usable	20	0.75	0.55	usable
6	0.58	0.74	usable	21	0.67	0.22	usable
7	0.75	0.38	usable	22	0.71	0.30	usable
8	0.71	0.30	usable	23	0.58	0.41	usable
9	0.67	0.39	usable	24	0.63	0.48	usable
10	0.57	0.77	usable	25	0.67	0.39	usable
11	0.54	0.50	usable	26	0.63	0.48	usable
12	0.75	0.38	usable	27	0.60	0.48	usable
13	0.75	0.55	usable	28	0.71	0.47	usable
14	0.63	0.31	usable	29	0.75	0.55	usable
15	0.79	0.45	usable	30	0.75	0.38	usable

 Table C.2 Difficulty and Discriminate analysis of the English pronunciation test items.

Reliability= 0.927

Student	Scor	res	difference	Squared
Number	Pretest (30)	Posttest (30)	difference	difference
1	15	27	12	144
2	16	25	9	81
3	14	26	12	144
4	13	25	12	144
5	17	24	7	49
6	15	28	13	169
7	16	26	10	100
8	17	27	10	100
9	18	28	10	100
10	17	27	10	100
11	16	26	10	100
12	14 15	25	11	121
13 _{A.IAB}	13	28	15	225
14	12	27	15	225
15	18	29	11	121
16	15	28	13	169
17	15	27	12	144
18	16	26	10	100
19	14	26	12	144
20	14	27	13	169
21	13	28	15	225
22	16	29	13	169

Table C.3 The students' score of pretest and posttest

(continued)

### Table C.3 (continued)

Student	Scor	es	difference	Squared	
Number	Pretest (30)	Posttest (30)	ullerence	difference	
23	15	28	13	169	
24	14	28	14	196	
25	15	27	12	144	
$\sum x$	378	672	294	3552	
x	15.12	34.84	-	-	
S.D.	1.59	1.72	-	-	
Average	50.10	89.60	-	-	

มหาวิทยาลัยราชภัฏมหาสารคาม RAJABHAT MAHASARAKHAM UNIVERSITy APPENDIX D

Questionnaire

มหาวิทยาลัยราชภัฏมหาสารคาม RAJABHAT MAHASARAKHAM UNIVERSITY

#### questionnaire

This questionnaire is to survey the student's satisfaction towards the English pronunciation multimedia of Mathayomsuksa I students. Please give all the information as best as you can. All the information will be kept confidential and would have no effect on tour English grade at all.

#### This questionnaire is divided in to 3 parts:

Part 1: Personal Information

Part 2: Satisfaction towards English pronunciation multimedia for Mathayomsuksa

Part 3: Other Recommend

Instruction: Please mark  $\checkmark$  on the appropriate box or, where relevant, specify your answer.

Part 1: Personal Information

1. Name ......Surname.....

2. Gender:

3. Age:

# 🗌 Meal ☐ Female

below 12 years 12-15 years 15-18 years

4. Education:

Primary School Secondary School

High School

**Part 2:** Satisfaction towards English pronunciation multimedia of Mathayomsuksa I students

**Instruction:** Please consider these statements and mark  $\checkmark$  on the answer that most reflect your opinion about English pronunciation multimedia of Mathayomsuksa I students

	Levels of satisfaction							
Evaluation list	Most	More	Moderate	Low	Very low			
	5	4	3	2	1			
1. Content								
1.1 The students gain knowledge								
and understanding on the								
multimedia.	25	1						
1.2 The multimedia contained								
appropriate content for the	ทกัก	91981	าสารดา	191				
student's age.			INIIVEDO	TV				
1.3 The multimedia content was	1 VPVI VI		DNIVENO					
not too easy or too difficult.								
2. Multimedia presentation								
2.1 The pictures presented in the								
multimedia tool were clear and								
easy to understand.								
2.2 The quality of the voice sound								
was clear and easy to understand.								
2.3 The font, size and color of the								
texts were clear and easy to read.								

5 = Most4 = More 3 = Moderate 2 = Low 1 = Very low

	Levels of satisfaction							
Evaluation list	Most	More	Moderate	Low	Very low			
	5	4	3	2	1			
2.4 The multimedia tool was								
interesting.								
3. Activity								
3.1 The content description was								
clear and easy to understand.								
3.2 The overall satisfaction								
towards the multimedia								
3.3 The activity could be learned								
any time.								
3.4 The activity enhanced	15	1						
knowledge.								

# Part 3: Other Recommend

RAJABHAT MAHASARAKHAM UNIVERSIT

**Instruction:** Please indicate further opinions related to the English pronunciation multimedia for Mathayomsuksa I students

2	1	2
Ζ	T	С

Table D.1	The result of exp	pert evaluation

Rating scale							
1	2	3	4	5	IOC	Result	
	L	L		L	L		
+1	+1	+1	+1	+1	1	useable	
+1	+1	0	+1	+1	0.8	useable	
THE D							
+1	0	+1	+1	+1	0.8	useable	
	3	1	1		I	<u> </u>	
+1	+1	+1	+1	+1	1	useable	
າງຄຳ	้อย	หาร	กร	പ	1		
		/ 110		DCIT			
+1	+1	+0	+1	+1	0.8	useable	
+1	+1	+1	+1	+1	1	useable	
+1	+1	+1	+1	+1	1	useable	
	+1 +1 +1 +1 +1 +1 +1 +1	$\begin{array}{c c} +1 & +1 \\ +1 & +1 \\ +1 & +1 \\ +1 & 0 \\ \hline \\ +1 & +1 \\ +1 & +1 \\ +1 & +1 \\ +1 & +1 \\ \end{array}$	1       2       3         +1       +1       +1         +1       +1       0         +1       0       +1         +1       0       +1         +1       +1       +1         +1       +1       +1         +1       +1       +1         +1       +1       +1         +1       +1       +1         +1       +1       +1         +1       +1       +1         +1       +1       +1         +1       +1       +1         +1       +1       +1	1       2       3       4         +1       +1       +1       +1         +1       +1       +1       +1         +1       +1       0       +1         +1       0       +1       +1         +1       +1       +1       +1         +1       +1       +1       +1         +1       +1       +1       +1         +1       +1       +1       +1         +1       +1       +1       +1         +1       +1       +1       +1         +1       +1       +1       +1         +1       +1       +1       +1	$\begin{array}{c cccc} 1 & 2 & 3 & 4 & 5 \\ \hline \\ +1 & +1 & +1 & +1 & +1 \\ +1 & +1 & 0 & +1 & +1 \\ \hline \\ +1 & +1 & 0 & +1 & +1 \\ \hline \\ +1 & +1 & +1 & +1 & +1 \\ \hline \\ +1 & +1 & +1 & +1 & +1 \\ \hline \\ +1 & +1 & +1 & +1 & +1 \\ \hline \\ +1 & +1 & +1 & +1 & +1 \end{array}$	1       2       3       4       5       IOC         +1       +1       +1       +1       +1       1         +1       +1       +1       +1       +1       1         +1       +1       0       +1       +1       0.8         +1       0       +1       +1       +1       0.8         +1       0       +1       +1       1       0.8         +1       +1       +1       +1       1       0.8         +1       +1       +1       +1       1       0.8         +1       +1       +1       +1       1       1         +1       +1       +1       +1       1       1         +1       +1       +1       +1       1       1         +1       +1       +1       +1       1       1	

(continued)

#### Table D.1 (continued)

Evaluation list		Rating scale							
		2	3	4	5	IOC	Result		
3. Activity									
3.1 The content description	+1	+1	0	+1	+1	0.8	useable		
was clear and easy to									
understand.									
3.2 The overall satisfaction	+1	+1	+1	+1	+1	1	useable		
towards the multimedia									
3.3 The activity could be	+1	+1	+1	+1	+1	1	useable		
learned any time.									
3.4 The activity enhanced	+1	+1	+1	+1	+1	1	useable		
knowledge.		Nr.							

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# The analysis of the validity of the questionnaire revealed that the questions generated were content validity and all items can be used for all.

 Table D.2 The student's satisfaction towards the English pronunciation multimedia

 for Mathayomsuksa I students

	Rating scale								
Evaluation list	Most	More	Moderate	Low	Very low				
	5	4	3	2	1				
1. Content									
1.1 The students had knowledge	13	10	2	0	0				
and understanding on the									
multimedia.									
1.2 The multimedia contained	19	6	-	-	-				
appropriate content for the									
student's age.	หกัก	แหว	สารคา	11					
1.3 The multimedia content was	11	5	9	V-	-				
not too easy or too difficult.	NAN II	NIVI U	NIVENON						
2. Multimedia presentation		1	I	I	I				
2.1 The pictures presented in the	14	7	4	-	-				
multimedia tool were clear and									
easy to understand.									
2.2 The quality of the voice	15	2	8	-	-				
soundwas clear and easy to									
understand.									
	1	I	1	((	continued)				

#### Table D.2 (continued)

	Rating scale				
Evaluation list	Most	More	Moderate	Low	Very low
	5	4	3	2	1
2.3 The font, size and color of the	5	8	12	-	-
texts were clear and easy to					
read.					
2.4 The multimedia tool was	10	10	5	-	-
interesting.					
3. Activity					
3.1 The content description was	16	6	3	-	-
clear and easy to understand.					
3.2 The overall satisfaction	15	5	5	-	-
towards the multimedia					
3.3 The activity could be learned	21	4	สารคา	ц-	-
any time.	RAKH	AM LI	NIVERSIT	Y	
3.4 The activity enhanced	19	6	-	-	-
knowledge.					

Table D.3 Mean, standard deviation and student's satisfaction towards the English

Evaluation list	x	S.D.	Satisfaction level
1. Content			
1.1 The students had knowledge and understanding on		0.64	High
the multimedia.			
1.2 The multimedia contained appropriate content for		0.43	Highest
the student's age.			
1.3 The multimedia content was not too easy or too		0.89	High
difficult.			
Average for the content	4.43	0.23	High
2. Multimedia presentation			
2.1 The pictures presented in the multimedia tool were	4.40	0.75	High
clear and easy to understand.			
2.2 The quality of the voice sound was clear and easy to	4.28	0.92	High
understand.	สาร	คาเ	
2.3 The font, size and color of the texts were clear and easy		0.78	High
to read.			
2.4 The multimedia tool was interesting.	4.20	0.75	High
Average for the multimedia presentation		0.08	High
3. Activity			
3.1 The content description was clear and easy to understand.	4.52	0.70	Highest
3.2 The overall satisfaction towards the multimedia.	4.40	0.80	High
3.3 The activity could be learned any time.	4.84	0.37	Highest
3.4 The activity enhanced knowledge.	4.76	0.43	Highest
Average for the activity		0.21	Highest
Overall		0.19	High

pronunciation multimedia for Mathayomsuksa I students



APPENDIX E

The Request for Qualified Specialists

to Assess a Research Instrument



# บันทึกข้อความ

ส่วนราชการ สำนักงานบัณฑิตศึกษา คณะมนุษยศาสตร์และสังคมศาสตร์
ที่ บศ.มส. /oba วันที่ ๔ มิถุนายน ๒๕๖๒
เรื่อง เรียนเชิญเป็นผู้เชี่ยวชาญตรวจสอบเครื่องมือการวิจัย
เรียน รองศาสตราจารย์ ดร. ณรงค์ฤทธิ์ โสภา

ด้วย นางรัตนากร เสตเตมิย์ รหัสประจำตัว ๕๗๘๒๓๐๓๐๐๐๕ นักศึกษาปริญญาโท สาขาวิชาภาษาอังกฤษศึกษารูปแบบการศึกษานอกเวลาราชการ ศูนย์มหาวิทยาลัยราชภัฏ มหาสารคาม กำลังทำวิทยานิพนธ์ เรื่อง "การพัฒนาความสามารถในการออกเสียงภาษาอังกฤษ ของนักเรียนชั้นมัธยมศึกษาปีที่ ๑ โดยใช้สื่อมัลติมีเดีย (Improving the Abilities in English Pronunciation of 7th Grade Students by Using Multimedia)"เพื่อให้การวิจัยดำเนินไป ด้วยความเรียบร้อย บรรลุตามวัตถุประสงค์

คณะมนุษยศาสตร์และสังคมศาสตร์ มหาวิทยาลัยราชภัฏมหาสารคาม จึงใคร่ขอเรียนเชิญท่าน เป็นผู้เชี่ยวชาญตรวจสอบความถูกต้องของเนื้อหาการวิจัย

ด้าน 🗹 ตรวจสอบความถูกต้องด้านเนื้อหา ภาษาการวิจัย

🗋 ตรวจสอบด้านการวัดและประเมินผล

🗖 ตรวจสอบด้านสถิติ การวิจัย

🗖 อื่นๆ ระบุ.....

จึงเรียนมาเพื่อโปรดพิจารณา และหวังเป็นอย่างยิ่งว่าจะได้รับความร่วมมือจากท่านด้วยดี ขอขอบคุณมา ณ โอกาสนี้



(ผู้ช่วยศาสตราจารย์ ดร.รังสรรค์ สิงหเลิศ) คณะบดีมนุษยศาสตร์และสังคมศาสตร์



คณะมนุษยศาสตร์และสังคมศาสตร์ มหาวิทยาลัยราชภัฏมหาสารคาม อ.เมือง จ.มหาสารคาม ๔๔๐๐๐

๔ มิถุนายน ๒๕๖๒

เรื่อง เรียนเชิญเป็นผู้เชี่ยวชาญตรวจสอบเครื่องมือการวิจัย

**เรียน** ดร.อุษณีย์ ดวงพรม

ด้วย นางรัตนากร เสตเตมิย์ รหัสประจำตัว ๕๗๘๒๓๐๓๑๐๑๐๕ นักศึกษาปริญญาโท สาขาวิชา ภาษาอังกฤษศึกษา รูปแบบการศึกษานอกเวลาราชการ ศูนย์มหาวิทยาลัยราชภัฏมหาสารคาม กำลังทำ วิทยานิพนธ์ เรื่อง "การพัฒนาความสามารถในการออกเสียงภาษาอังกฤษของนักเรียนชั้นมัธยมศึกษาปี่ที่ ๑ โดยใช้สื่อมัลติมีเดีย (Improving the Abilities in English Pronunciation of 7th Grade Students by Using Multimedia)"เพื่อให้การวิจัยดำเนินไปด้วยความเรียบร้อย บรรลุตามวัตถุประสงค์

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ด้าน 🗖 ตรวจสอบความถูกต้องด้านเนื้อหา ภาษาการวิจัย

🗖 ตรวจสอบด้านการวัดและประเมินผล

่ ፼ตรวจสอบด้านเนื้อหา ภาษา สถิติ การวัดและการประเมินผล

🗖 อื่น ๆ ระบุ.....

จึงเรียนมาเพื่อโปรดพิจารณา และหวังเป็นอย่างยิ่งว่าจะได้รับความร่วมมือจากท่านด้วยดี ขอขอบคุณมา ณ โอกาสนี้

ขอแสดงความ่นับถือ

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คณะบดีมนุษยศาสตร์และสังคมศาสตร์

คณะมนุษยศาสตร์และสังคมศาสตร์ มหาวิทยาลัยราชภัฏมหาสารคาม



คณะมนุษยศาสตร์และสังคมศาสตร์ มหาวิทยาลัยราชภัฏมหาสารคาม อ.เมือง จ.มหาสารคาม ๔๔๐๐๐

๔ มิถุนายน ๒๕๖๒

เรื่อง เรียนเชิญเป็นผู้เชี่ยวชาญตรวจสอบเครื่องมือการวิจัย

**เรียน** นางสาวอิทธิ์ณณัฏฐ์ นันแก้ว

ด้วย นางรัตนากร เสตเตมิย์ รหัสประจำตัว ๕๗๘๒๓๐๓๑๐๑๐๕ นักศึกษาปริญญาโท สาขาวิชา ภาษาอังกฤษศึกษา รูปแบบการศึกษานอกเวลาราชการ ศูนย์มหาวิทยาลัยราชภัฏมหาสารคาม กำลังทำ วิทยานิพนธ์ เรื่อง "การพัฒนาความสามารถในการออกเสียงภาษาอังกฤษของนักเรียนชั้นมัธยมศึกษาปี่ที่ ๑ โดยใช้สื่อมัลติมีเดีย (Improving the Abilities in English Pronunciation of 7th Grade Students by Using Multimedia)"เพื่อให้การวิจัยดำเนินไปด้วยความเรียบร้อย บรรลุตามวัตถุประสงค์

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ด้าน 🛛 ตรวจสอบความถูกต้องด้านเนื้อหา ภาษาการวิจัย

🗹 ตรวจสอบด้านการวัดและประเมินผล

🗖 ตรวจสอบด้านเนื้อหา ภาษา สถิติ การวัดและการประเมินผล

🗖 อื่น ๆ ระบุ.....

จึงเรียนมาเพื่อโปรดพิจารณา และหวังเป็นอย่างยิ่งว่าจะได้รับความร่วมมือจากท่านด้วยดี ขอขอบคุณมา ณ โอกาสนี้

ขอแสดงความนับถือ (ผู้ช่วยศาสตราจารย์ ดร.รังสรรค์ สิงหเลิศ)

คณะบดีมนุษยศาสตร์และสังคมศาสตร์

คณะมนุษยศาสตร์และสังคมศาสตร์ มหาวิทยาลัยราชภัฏมหาสารคาม



คณะมนุษยศาสตร์และสังคมศาสตร์ มหาวิทยาลัยราชภัฏมหาสารคาม อ.เมือง จ.มหาสารคาม ๔๔๐๐๐

๔ มิถุนายน ๒๕๖๒

เรื่อง เรียนเชิญเป็นผู้เชี่ยวชาญตรวจสอบเครื่องมือการวิจัย

**เรียน** นางสาวเสาวลักษณ์ น้อยอาษา

ด้วย นางรัตนากร เสตเตมิย์ รหัสประจำตัว ๕๗๘๒๓๐๓๑๐๑๐๕ นักศึกษาปริญญาโท สาขาวิชา ภาษาอังกฤษศึกษา รูปแบบการศึกษานอกเวลาราชการ ศูนย์มหาวิทยาลัยราชภัฏมหาสารคาม กำลังทำ วิทยานิพนธ์ เรื่อง "การพัฒนาความสามารถในการออกเสียงภาษาอังกฤษของนักเรียนชั้นมัธยมศึกษาปี่ที่ ๑ โดยใช้สื่อมัลติมีเดีย (Improving the Abilities in English Pronunciation of 7th Grade Students by Using Multimedia)"เพื่อให้การวิจัยดำเนินไปด้วยความเรียบร้อย บรรลุตามวัตถุประสงค์

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ด้าน

🗖 ตรวจสอบด้านการวัดและประเมินผล

🗖 ตรวจสอบด้านเนื้อหา ภาษา สถิติ การวัดและการประเมินผล

🗖 อื่น ๆ ระบุ.....

จึงเรียนมาเพื่อโปรดพิจารณา และหวังเป็นอย่างยิ่งว่าจะได้รับความร่วมมือจากท่านด้วยดี ขอขอบคุณมา ณ โอกาสนี้ ,

ขอแสดงความนับถือ

(ผู้ช่วยศาสตราจารย์ ดร.รังสรรค์ สิงหเลิศ)

คณะบดีมนุษยศาสตร์และสังคมศาสตร์

คณะมนุษยศาสตร์และสังคมศาสตร์ มหาวิทยาลัยราชภัฏมหาสารคาม



คณะมนุษยศาสตร์และสังคมศาสตร์ มหาวิทยาลัยราชภัฏมหาสารคาม อ.เมือง จ.มหาสารคาม ๔๔๐๐๐

๔ มิถุนายน ๒๕๖๒

เรื่อง เรียนเชิญเป็นผู้เชี่ยวชาญตรวจสอบเครื่องมือการวิจัย

**เรียน** นางละมุล เชื่อนิต

ด้วย นางรัตนากร เสตเตมิย์ รหัสประจำตัว ๕๗๘๒๓๐๓๑๐๑๐๕ นักศึกษาปริญญาโท สาขาวิชา ภาษาอังกฤษศึกษา รูปแบบการศึกษานอกเวลาราชการ ศูนย์มหาวิทยาลัยราชภัฏมหาสารคาม กำลังทำ วิทยานิพนธ์ เรื่อง "การพัฒนาความสามารถในการออกเสียงภาษาอังกฤษของนักเรียนชั้นมัธยมศึกษาปี่ที่ ๑ โดยใช้สื่อมัลติมีเดีย (Improving the Abilities in English Pronunciation of 7th Grade Students by Using Multimedia)"เพื่อให้การวิจัยดำเนินไปด้วยความเรียบร้อย บรรลุตามวัตถุประสงค์

คณะมนุษยศาสตร์และสังคมศาสตร์ มหาวิทยาลัยราชภัฏมหาสารคาม จึงใคร่ขอเรียนเชิญท่าน เป็นผู้เชี่ยวชาญตรวจสอบความถูกต้องของเนื้อหาการวิจัย

ด้าน 🗖 ตรวจสอบความถูกต้องด้านเนื้อหา ภาษาการวิจัย

🗹 ตรวจสอบด้านการวัดและประเมินผล

🗖 ตรวจสอบด้านเนื้อหา ภาษา สถิติ การวัดและการประเมินผล

🗖 อื่น ๆ ระบุ.....

จึงเรียนมาเพื่อโปรดพิจารณา และหวังเป็นอย่างยิ่งว่าจะได้รับความร่วมมือจากท่านด้วยดี ขอขอบคุณมา ณ โอกาสนี้ /

ขอแสดงความนับถือ

(ผู้ช่วยศาสตราจารย์ ดร.รังสรรค์ สิงหเลิศ)

คณะบดีมนุษยศาสตร์และสังคมศาสตร์

คณะมนุษยศาสตร์และสังคมศาสตร์ มหาวิทยาลัยราชภัฏมหาสารคาม



คณะมนุษยศาสตร์และสังคมศาสตร์ มหาวิทยาลัยราชภัฏมหาสารคาม อ.เมือง จ.มหาสารคาม ๔๔๐๐๐

๔ มิถุนายน ๒๕๖๒

**เรื่อง** ขออนุญาตให้ผู้วิจัยเข้าทดลองใช้เครื่องมือและเก็บรวบรวมข้อมูลการวิจัย **เรียน** ผู้อำนวยการโรงเรียนกู่สันตรัตน์ ต.กู่สันตรัตน์ อ.นาดูน จ.มหาสารคาม

ด้วย นางรัตนากร เสตเตมิย์ รหัสประจำตัว ๕๗๘๒๓๐๓๑๐๑๐๕ นักศึกษาปริญญาโท สาขาวิชา ภาษาอังกฤษศึกษา รูปแบบการศึกษานอกเวลาราชการ ศูนย์มหาวิทยาลัยราชภัฏมหาสารคาม กำลังทำ วิทยานิพนธ์ เรื่อง "การพัฒนาความสามารถในการออกเสียงภาษาอังกฤษของนักเรียนชั้นมัธยมศึกษาปี่ที่ ๑ โดยใช้สื่อมัลติมีเดีย (Improving the Abilities in English Pronunciation of 7th Grade Students by Using Multimedia)"เพื่อให้การวิจัยดำเนินไปด้วยความเรียบร้อย บรรลุตามวัตถุประสงค์

คณะมนุษยศาสตร์และสังคมศาสตร์ มหาวิทยาลัยราชภัฏมหาสารคาม จึงใคร่ขออนุญาตให้ ผู้วิจัยเก็บรวบรวมข้อมูลเพื่อการวิจัยกับประชากรและกลุ่มตัวอย่างจากหน่วยงานของท่าน เพื่อนำ ข้อมูลไปทำการวิจัยให้บรรลุตามวัตถุประสงค์ต่อไป

จึงเรียนมาเพื่อโปรดพิจารณา และหวังเป็นอย่างยิ่งว่าจะได้รับความร่วมมือจากท่านด้วยดี ขอขอบคุณมา ณ โอกาสนี้

ขอแสดงความนั้บถือ (ผู้ช่วยศาสตราจารย์ ดร.รังสรรค์ สิงหเลิศ) คณะบดีมนุษยศาสตร์และสังคมศาสตร์

คณะมนุษยศาสตร์และสังคมศาสตร์ มหาวิทยาลัยราชภัฏมหาสารคาม โทร, โทรสาร ๐-๔๓๗๒-๒๖๒๓



คณะมนุษยศาสตร์และสังคมศาสตร์ มหาวิทยาลัยราชภัฏมหาสารคาม อ.เมือง จ.มหาสารคาม ๔๔๐๐๐

๔ มิถุนายน ๒๕๖๒

**เรื่อง** ขออนุญาตให้ผู้วิจัยเข้าทดลองใช้เครื่องมือและเก็บรวบรวมข้อมูลการวิจัย **เรียน** ผู้อำนวยการโรงเรียนกบ้านหนองป้าน ต.หนองคู อ.นาดูน จ.มหาสารคาม

ด้วย นางรัตนากร เสตเตมิย์ รหัสประจำตัว ๕๗๘๒๓๐๓๑๐๑๐๕ นักศึกษาปริญญาโท สาขาวิชา ภาษาอังกฤษศึกษา รูปแบบการศึกษานอกเวลาราชการ ศูนย์มหาวิทยาลัยราชภัฏมหาสารคาม กำลังทำ วิทยานิพนธ์ เรื่อง "การพัฒนาความสามารถในการออกเสียงภาษาอังกฤษของนักเรียนชั้นมัธยมศึกษาปี่ที่ ๑ โดยใช้สื่อมัลติมีเดีย (Improving the Abilities in English Pronunciation of 7th Grade Students by Using Multimedia)"เพื่อให้การวิจัยดำเนินไปด้วยความเรียบร้อย บรรลุตามวัตถุประสงค์

คณะมนุษยศาสตร์และสังคมศาสตร์ มหาวิทยาลัยราชภัฏมหาสารคาม จึงใคร่ขออนุญาตให้ ผู้วิจัยเก็บรวบรวมข้อมูลเพื่อการวิจัยกับประชากรและกลุ่มตัวอย่างจากหน่วยงานของท่าน เพื่อนำ ข้อมูลไปทำการวิจัยให้บรรลุตามวัตถุประสงค์ต่อไป

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