

A Development of English Pronunciation Using Principles of Phonetics for English Major Students at Loei Rajabhat University

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Abstract—This action research accentuates the outcome of a development in English pronunciation, using principles of phonetics for English major students at Loei Rajabhat University. The research is split into 5 separate modules: 1) Organs of Speech and How to Produce Sounds, 2) Monophthongs, 3) Diphthongs, 4) Consonant sounds, and 5) Suprasegmental Features. Each module followed a 4 step action research process, 1) Planning, 2) Acting, 3) Observing, and 4) Reflecting. The research targeted 2nd year students who were majoring in English Education at Loei Rajabhat University during the academic year of 2011. A mixed methodology employing both quantitative and qualitative research was used, which put theory into action, taking segmental features up to suprasegmental features. Multiple tools were employed which included the following documents: pre-test and post-test papers, evaluation and assessment papers, group work assessment forms, a presentation grading form, an observation of participants form and a participant self-reflection form.

All 5 modules for the target group showed that results from the post-tests were higher than those of the pre-tests, with 0.01 statistical significance. All target groups attained results ranging from low to moderate and from moderate to high performance. The participants who attained low to moderate results had to re-sit the second round. During the first development stage, participants attended classes with group participation, in which they addressed planning through mutual co-operation and sharing of responsibility. Analytic induction of strong points for this operation illustrated that learner cognition, comprehension, application, and group practices were all present whereas the participants with weak results could be attributed to biological differences, differences in life and learning, or individual differences in responsiveness and self-discipline.

Participants who were required to be re-treated in Spiral 2 received the same treatment again. Results of tests from the 5 modules after the 2nd treatment were that the participants attained higher scores than those attained in the pre-test. Their assessment and development stages also showed improved results. They showed greater confidence at participating in activities, produced higher quality work, and correctly followed instructions for each activity. Analytic induction of strong and weak points for this operation remains the same as for Spiral 1, though there were improvements to problems which existed prior to undertaking the second treatment.

Keywords—Action research, English pronunciation, phonetics, segmental features, suprasegmental features.

I. RATIONALE

ENGLISH is not only the language of England but is the first language of the inhabitants of the whole of the British Isles. It is also spoken by millions of people in countries

across the globe. According to a Google search, around 350 million people speak English as their first language, with around 300 million using English as a second or official language, and another 100 million speaking English as a foreign language. English is now the primary language for international communication, with the majority of conversations between speakers of different nationalities taking place in English.

Graduates in Thailand are usually required to undergo extra-curricular courses in English prior to graduation. As claimed by Shumin [1], pronunciation is one of the most difficult parts of speech for non-native speakers to master in the classroom. This is due in no small part to the fact that the majority of English teachers in Thailand are of Thai background, speaking Thai as their first language. Thai is a tonal language, and English belongs to the Germanic family of languages. Therefore, the pronunciation of English by Thai students is highly influenced by their native tongue. There are several areas where problems arise due to the differences between the two languages. For example, the Thai language has a pronounced difference in both the initial and final sounds of words when compared to the English language. Many researchers have paid close attention to the instruction of pronunciation. Scarcella and Oxford [2] stated that pronunciation instruction should be included in all secondary language classes through a variety of activities. Additionally, Pennington [3] stated that pronunciation instruction can help learners develop their inter-language phonology, by giving them the perceptual and productive experience required to re-conceptualize performance targets, whilst offering motivation to help develop a value-set for pronunciation. Morley [4] and Derwing [5] claimed that effective English pronunciation training should include both segmental features and suprasegmental features, in order to help non-native English speakers to become intelligibly competent. And this is a claim which I also have come to concur with from my own teaching experience. However, although English instruction today has moved towards emphasising these communicative competencies, many Thai students are still unable to pronounce words meaningfully and effectively, and pronunciation is somehow ignored, with poor segmental and suprasegmental articulation still being found in the English classroom. And it is problematic cases such as these that have given rise to this research.

It is accepted that poor pronunciation or poor production of suprasegmental features in the classroom undoubtedly

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distracts students and impedes comprehension of messages. "Standard English" cannot be the answer to help teach pronunciation, as there are many different dialects, even throughout England, and also various versions of English pronunciation which are used by non-native English speakers. With this in mind, the following research aims to aid 2nd language (L2) learners to master the English language and emphasises that pronunciation should play a vital role in both English as a second language (ESL) and English as a foreign (EFL) instruction and this research scrutinises the development of English pronunciation, using principles of phonetics, to enable English major students to comprehend and articulate both segmental and suprasegmental features more effectively. This is a classroom action research based on Kemmis' and McTaggart's [6] maxim, by which the established scheme of research is to plan, act, observe, and reflect. The research undertakes 5 modules with regard to organs of speech and how to produce sounds, monophthongs, diphthongs, consonant sounds, and suprasegmental features.

II. SCOPE AND METHODOLOGY

A. Objectives of the Study

To study outcomes in the development of English pronunciation, using principles of phonetics, for English major students at Loei Rajabhat university, incorporating 5 separate modules: Organs of Speech and How to Produce Sounds, Monophthongs, Diphthongs, Consonant Sounds, and Suprasegmental Features.

B. Scope of the Research

This is a mixed methodology employing both quantitative and qualitative research. The former is a quasi-experimental action research design, which took place in a classroom environment. It is based on a one-group pre-test – post-test. Prior to the beginning of each Spiral, the pre-test (O1) was used to measure student achievement, then, following treatment (X), student achievement was re-evaluated using the post-test (O2). The results of O1 and O2 were then compared in order to determine if there had been a significant improvement in performance. The first treatment lasted for 56 hours. The latter is a qualitative design.

C. Limitations

Differences in gender, intelligence, emotional, and socio-economic background of the target group are not taken into consideration.

Phonetic transcription and pronunciation is based upon the British English system.

Final clusters of words are not studied.

D. Population and Sampling

A total of 41 students from the Faculty of Education were targeted for the research during the academic year of 2011. A 4 stage plan, act, observe, and reflect. The process was taken from the classroom action research by Kemmis and McTaggart [6].

E. Research Instruments

The 5 modules of classroom action research, Organs of Speech and How to Produce Sounds, Monophthongs, Diphthongs, Consonant sounds, and Suprasegmental Features were investigated using a mixture of quantitative and qualitative research. The following documents were used: Pre-test and Post-test Papers, Evaluation and Assessment Papers, a Group-work Assessment Form, a Presentation Grading Form, an Observation of Participants Form, and a Participant Self-reflection Form.

F. Data Collection Procedure

For quantitative research, computer software was used to calculate statistics, using analysis of frequencies, means, ranges, standard deviations, t-test dependent, difficulty, and discrimination of test items. Whereas for qualitative research, "analytic induction" was used, as well as an observation form during participant treatment, and a participant self-reflection form.

III. RESULTS

Module 1, Organs of Speech and How to Produce Sounds, found that the post-test results were higher than those of the pre-test, with 0.01 statistical significance. From a total of 41 participants, 31 attained high performance, whereas the remaining 10 performed poorly. During the treatment, participants achieved a highest score of 30 and a lowest score of 18. Items assessed in group work were planning strategies, willingness to participate, and co-operation. Students understood and were able to put knowledge into practical use, and were eager to work as a team. Analysis of strong points for this module found that participants were able to understand and apply related skills, both individually, and as part of a group. Weak points were identified as teacher competence, teaching strategies, classroom atmosphere, and time management. Only 10 poor achievers required re-treatment in Spiral 2. Post-test results after the 2nd treatment were an improvement upon the results directly following the first treatment. However, quality of group-work and analytic induction remained the same as in Spiral 1.

Module 2, Monophthongs, found that the post-test results were higher than those of the pre-test, with 0.01 statistical significance. Out of 41 participants, 21 attained high performance, whereas the remaining 20 were poor performers. During the treatment, participants achieved a highest score of 34.5 and a lowest score of 18. Their group-work incorporated elements of cooperation and project presentation creativity. Overall they were enthusiastic participators, who adhered well to the instructions for each activity. Strong points identified in this module were cognition, comprehension, implementation of knowledge, and group participation. However, there was disagreement over group participation as a strong point it was thus also perceived by a proportion of participants as a weak point. Other weak points were poor classroom setting, teaching techniques, pedagogic strategies, and duration (too long). Only 20 weak achievers required retreatment in Spiral 2. Post-test results after the 2nd treatment were better than

those that directly followed the 1st treatment. However, the quality of group-work and analysis of the strong and weak points remained the same as in Spiral 1.

Module 3, Diphthongs, found that the post-test results were higher than the pre-test results, with 0.01 statistical significance. Out of 41 participants, 35 were high performers, whereas the remaining 6 participants attained poor results. During the treatment, participants achieved a highest score of 40 and a lowest score of 23.5. Group-work incorporated elements of planning, sharing responsibilities, cooperation, and project presentation creativity. Overall, they were enthusiastic participants, who produced high quality work. Analytic induction of participants identified strong points as cognition, comprehension, implementation of knowledge, group practices, and eagerness to work as a team. Weak points were classroom size (too large), group work presentation, teacher organisation, pedagogic strategies, and duration (too long). Only 6 weak achievers were required to participate in Spiral 2. Analysis revealed that the post-test results after the 2nd treatment were an improvement upon those that directly followed the 1st treatment. However, quality of group-work and analytic induction of strong points and weak points remained the same as in Spiral 1.

Module 4, Consonant Sounds, found that the post-test results were higher than those of the pretest, with 0.01 statistical significance. Out of 41 students, 22 attained high results, whereas the remaining 19 performed poorly. During the treatment, participants achieved a highest score of 36 and a lowest score of 27.2. In feedback, participants requested not to do group-work and not to give a presentation for this module. However, they exhibited behavior in the pursuit of language competence during group-work assignments. Analytic induction revealed that strong points were cognition, comprehension, and implementation of knowledge, group participation, and enthusiasm. However, there was disagreement over group participation as a strong point, it was thus also perceived by a proportion of participants as a weak point. Other weak points were teacher organisation, pedagogic strategies, and duration (too long). Only 19 weak achievers required re-treatment in Spiral 2. Post-test results after the 2nd treatment were an improvement over those directly following the 1st treatment. Feedback suggested that there should be additional activities designed to promote long-term memory. The highest score was 33 and the lowest was 29. Analytic induction remained the same as in Spiral 1. In their feedback, participants also noted that they were confident and well prepared; however, they also requested improvements to the module content.

Module 5, Suprasegmental Features found that the post-test results were higher than those of the pre-test, with 0.01 statistical significance. 31 participants attained a high level of performance whilst 10 participants performed poorly. During the treatment, participants attained a highest score of 37 and a lowest score of 15.5. In feedback, participants requested not to do group-work and not to give a presentation for this module. However, assessment of their group-work revealed a high level of competence. Analytic induction of participants

identified strong points as cognition, comprehension and implementation of knowledge, group participation, and enthusiasm. However, there was disagreement over group participation as a strong point; it was thus also perceived by a proportion of participants as a weak point. Other weak points were identified as teacher organisation, pedagogic strategies, and duration (too long). Only 10 weak achievers required re-treatment in Spiral 2. Post-test results after the 2nd treatment were an improvement upon those that directly followed the 1st treatment. The highest score for Spiral 2 was 34, and the lowest score was 29. Analytic induction remained the same as in Spiral 1, but in their feedback, participants indicated that they were able to read and assess materials more effectively, with performances more akin to that of their native language.

IV. CONCLUSION AND DISCUSSION

This action research comprised of 5 modules and was undertaken during the academic year of 2011. It was part of a phonetics course, delivered by a teacher, who also acted as a researcher. Prior to the beginning of the research, both teacher and participants jointly planned and established a framework for the research. The framework of each module consisted of 4 stages, which were plan, act, observe, and reflect. Each participant had to complete both pre-test and post-test in all 5 modules. Each of the 5 modules had 2 Spirals. It was also agreed that poor achievers might need to enter a 3rd Spiral. However, only 2 Spirals were required. After application of the treatment for all participants, it was found that the tests in both Spiral 1 and 2 were able to distinguish poor achievers from high achievers.

Regarding Module 1, the researcher followed the action plan and recorded the outcome. In the beginning, students were not confident and seemed shy to present their work, but the researcher began building a positive classroom atmosphere in order to help the students relax. After this, they began to perform better.

It is generally understood that Thai culture teaches people to be considerate when in a group, as the Thai proverb says, "Silence is Golden, Talk is Cheap". In Spiral 1, it was found that the participants had varying ideas about the organs of speech. As all the participants are individuals, with differing socio-economic backgrounds, results from Spiral 1 were varied. As a result, 10 participants had to re-sit for a second treatment. This time, when working in a small group, they performed well. It may be because they felt more secure. However, some participants were still slow and lacked enthusiasm. It is the job of the researcher, as a teacher, to motivate these individuals and help them to complete their activities effectively, and in a meaningful way.

Modules 2, 3, and 4 are quite different from module 1, in that they focus more on theoretical concepts, as opposed to practical activities. Results from modules 2 and 3 showed that learners failed to produce both single vowel sounds and consonant sounds effectively. In module 3 participants were able to distinguish diphthongs and produce them effectively. Activities were restricted to 8 diphthongs in order that participants would be able to remember them easily. Both

Thai and English languages differ greatly. Interference from the native language is often found in the target language. However, the researcher can help students by giving them additional activities, such as phonic worksheets with minimal pairs, in order to help them compare sound differences. Another reason for poor performance was revealed when the participants confessed that they did not practice after class. However, students had been told “practice makes perfect”. In order to support the acquisition of L2, students have to participate in group-work, so as to enable collaborative learning, and thus encourage them to engage with challenges rather than to compete with each other. My research focused on group participation during project work. It is learner centered, encouraging students to take full responsibility. In this respect, my research pertains to Katz and Chard’s work entitled “Engaging Children’s Mind: The Project Approach” [7], whereby learners were interdependent in group activities. This was reflected in their participation when they understood the importance of English pronunciation for effective communication. In my research, many participants required a second treatment, during which they were able to complete their activities, with the help of interactive applications from the Internet, which were provided in order to increase confidence and motivation.

Module 5, Suprasegmental Features, emphasised word stresses, linking sounds, rhythm and pause, and intonation. I had to sacrifice other duties in order to support participant learning activities, which had a long duration. There were problems in every element of this module, especially sentence stresses and errors in Fricative and Affricate sounds. L2 learners tend not to release final sounds because of L1 interference. This phenomenon corresponds to Phubet [8], whereby Thai students have difficulty pronouncing Fricative and Affricate sounds. In addition, Wei and Zhou [9], in “Insight into Pronunciation of Thai Students” found that Thai students face other problems with pronunciation. For example, they tend to pronounce /r/ as /l/, /v/ as /f/, /z/ as /s/, and vowel sounds like /ei/ as /e/. Sometimes even high achievers may mispronounce a sentence, because they are over cautious, thus sounding unnatural. While using rising and falling intonation in a sentence, my research found problems which corresponded with Janyasupab [10] in her study on “An Analysis of English Pronunciation of English Major Students at High Certificate of Education Level”. In her research, she identified factors that cause these problems as being 1) Mother tongue interference 2) Difficulty of the language itself, and 3) Failure of learning processes. Also, Wei and Zhou [9] stated that Thai learners do not place rising intonation when pronouncing yes-no questions. However, in my research, practical schemes of intonation were assigned for group practice. Concerning L1 language interference, “the Thai language” is a member of the Tai language family, and rising and falling intonations are not found in L1. It is a tonal language in which pitch is used as a part of speech which changes the meaning of the word.

REFERENCES

- [1] Shumin, K. (1997). Factors to consider: Developing adult EFL students’ speaking abilities. *Forum*, 35 (3), 8-13-19
- [2] Scarcella, R.C. & Oxford, R.L. (1994) Second Language Pronunciation: state of the art in instruction. *System*, 22, (2) 221-230.
- [3] Pennington, M. (1980). Teaching pronunciation from the top down. *RELC Journal*, 20 (1), 21-38
- [4] Morley, J. (1991). The pronunciation component in teaching English to speakers of other language. *TESOL Quarterly*, 25 (1), 51-74.
- [5] Derwing, T. (2002b). The effects of pronunciation instruction on the accuracy, fluency and complexity of L2 accented speech. *Applied Language Learning*, 13 (1-2), 1-17.
- [6] Kemmis, S., and R. McTaggart. (1988). *The Action research Planner*. 3rd ed. Geelong, Australia: Deakin University Press.
- [7] Katz and Chard. (2000). *Engaging Children’s Mind: The Project Approach*. Connecticut. Ablex publishing cooperation.
- [8] Pubet kaichaiyapum. (2007). A Development of English Final Consonants for Grade 5 Students at Ban Mafaiwan School, Kangko district, Chaiyapum province. Master Thesis in the Department of English, The Graduate School, Loei Rajabhat University.
- [9] Wei, Y.& Zhou, Y. (2002). *Insights into English Pronunciation Problems of Thai Students*. Retrieved November 22, 2006 from ERIC Document Reproduction Service Abstract No. ED 476 746 FL027 696.
- [10] Janyasupab, T. (1982). *An Analysis of English Pronunciation of English Major Students at Higher Certificate Level*. Master Thesis in the Department of Secondary Education, The Graduate School, Chulalongkorn University.