

Tongue Twister, Students' Pronunciation Ability, and Learning Styles

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Abstract

In EFL context, considering appropriate technique in teaching pronunciation is a pivotal issue since it could help students to learn how to pronounce English sounds easy. This study aimed to investigate the effect of tongue twister technique on pronunciation ability of students across different learning styles. This study involved 34 first-year English major students taking Intensive English course at Universitas Lambung Mangkurat, one of leading universities in Indonesia. The students in the experimental group were taught by using tongue twister, while those in the control group were taught by using repetition technique. The students were also grouped based on two types of learning styles, namely active and reflective learning styles referring to Felder and Silverman's (1988) learning style model. The findings of the study showed that there was no significant difference in pronunciation ability between the groups. No significant difference was either found in pronunciation ability between students with active learning style and those with reflective learning style. In spite of the insignificant results, tongue twister is considered beneficial by the students as they perceived that practicing tongue twisters cultivated joyful learning and it helped them to improve their pronunciation, fluency, and motivation in learning English pronunciation. Tongue twister practice could complement the use of repetition technique to enhance students' learning experience and learning outcome.

Keywords: active, learning styles, pronunciation, reflective, tongue twister

Cite as: Mu'in, F., Rosy Amrina, R., & Amelia, R. (2017). Tongue Twister, Students' Pronunciation Ability, and Learning Styles. *Arab World English Journal*, 8 (4). DOI: <https://dx.doi.org/10.24093/awej/vol8no4.25>

Introduction

Among the four language skills and other language components, pronunciation gets the least attention to discuss. The attitudes towards foreign accents have generally changed from judgmental to more tolerant (Tergujeff, p. 2013). In fact, the teaching of pronunciation takes part every year in most English Departments curriculum at the university level. Some prior issues such as whether pronunciation is worth teaching (Richards & Renandya, 2002, p.175), whether pronunciation can be taught (Jones in Richards & Renandya, 2002, p. 179), and the importance of teaching pronunciation to adult learners (Thompson & Gaddes, 2004) have put pronunciation in a settled position in language teaching. Over the past 50 years, at least three primary orientations of pronunciation teaching exist. These orientations are imitating sounds orientation, explicit presentation and intensive practice with specific sounds orientation, as well as experiential orientation (Murphy in Nunan, 2003, p.112-114).

This third orientation is the most common one used by teachers nowadays to teach pronunciation. The basis of this orientation is on the communicative and task-based language teaching since word as well as sentence stress, rhythm, and intonation become a priority (Murphy in Nunan, 2003, p. 115, Harmer, 2007, p. 253, Brown & Lee, 2015, p. 374). Further, this priority is immersed into a wide variety of existed techniques used in pronunciation teaching including listen and repeat/drills, minimal pair practice, role play, teacher correction, phonemic script, recording learners, using mirrors and diagrams of the mouth, listening tasks, and encouraging learners to think of their pronunciation goals. However, there are some other things besides these orientations and techniques that can even hinder and support students' mastery of pronunciation. Brown and Lee (2015, p. 375) listed six factors that affect pronunciation. Native language is the first and the most influential factor. The other five factors are age, exposure, innate phonetic ability, identity, and agency, as well as motivation and concern for good pronunciation.

Acquiring good pronunciation is teacher and students' goal. Therefore, teacher spends time considering appropriate ways of teaching pronunciation and developing students' skill. Velázquez and Ángel (2013) and Szyszka (2016) revealed that the majority of teachers use repetition technique to facilitate the acquisition of English pronunciation and help students to become more familiarized with the pronunciation more easily and quickly. In its most basic form, repetition technique asks students to repeat individual words or utterances. As the teacher gives a model of the language, the students repeat it either in unison or individually or both. The other researcher, Khakim (2015) also found that applying repetition could improve students' pronunciation ability. Jones in Richards and Renandya (2002, p. 180) mentioned that although repetition is a means to help articulation, it can be more meaningful, communicative, and memorable by including visual representations and training in the awareness of kinesthetic sensation. However, apart from these findings, repetition is a pronunciation technique that does not fully address some native language interference challenges faced by the students.

The challenges in English sounds pronunciation are apparent. One of the challenges is that students have to learn not only how to use their voice in a different way from their native language, but also have to learn to make new movements with the organs of articulation in pronouncing the English sounds (Orion, 1997, p. 24). In other words, there are some necessary movements which are made to make some English sounds which are very similar and often confusing to pronounce. The other challenge which is related to native language is that most students are reluctant to speak

because of their foreign accent. Even though acquiring native-like pronunciation is not the main goal to reach, the native speaker's pronunciation patterns reflect the commonly accepted by particular speech communities (Murphy in Nunan, 2002, p. 112). Accordingly, Jones in Richards and Renandya (2002, p. 180) emphasizes the attention to focus on the teaching methods that fully address the issues of motivation and exposure to input from native speakers.

In responding to the challenges above, one technique namely tongue twister comes as a technique that promotes native-like pronunciation provides exposure of certain different sounds, and drives students' motivation for good pronunciation. Harmer (2007, p. 256) mentions that teacher can use tongue twister in working with difficult sounds. A previous study by Turumi, Jamiluddin, and Salehuddin (2016) on tongue twister in the eighth grade of junior high school showed that tongue twister is a promising technique to teach pronunciation. In addition, Zhang (2013) also used tongue twisters to supplement beginning level CFL students' pronunciation and tone practice. Meanwhile, in the university context, Sitoresmi (2016) implemented tongue twisters in the pronunciation class and the result was tongue twisters were useful to improve motivation, class condition, and pronunciation ability. The definition of tongue twister itself is a text that features one or a combination of sounds that are extremely difficult for the mouth and, of course, tongue to control (Karker, 2000, p. 2 in Sitoresmi, 2016). Despite the difficulty, especially for foreign learners, tongue twister is helpful to guide students to native-like pronunciation and help students learn many minimal pairs for example in distinguishing phonemes /ʃ/ and /s / as well as producing distinct and accurate [l] and [r] sounds. Unfortunately, tongue twister technique is less popular than repetition at higher secondary level pronunciation teaching (Szyszka, 2016). Considering the potential impacts of tongue twister on students' pronunciation ability, this study aimed to investigate the effect of tongue twister compared to repetition technique on students' pronunciation ability.

Students' success in learning English pronunciation is not only affected by the use of appropriate teaching techniques. Given that pronunciation is a personal matter (Harmer, 2007, p. 252), the outcome of English pronunciation learning can also be affected by students' individual differences, such as intelligence, aptitude, personality, motivation, attitude, age of acquisition and learning style (Saville-Troike, 2006; Brown & Lee, 2015). Among these differences, students' learning style is a prominent concern in this study in addition to the teaching technique employed in the pronunciation classroom. Learning style is the preference individuals have for learning. In pronunciation teaching, it is important to realize that students ultimately have their own control of changes in pronunciation (Murphy, 2003, p. 115-117 in Nunan), so the way or strategy they prefer for learning pronunciation would play important role in affecting the learning outcome. Furthermore, when students' learning styles were matched with teaching technique, positive learning experience would possibly be created (Reid, 2005; Felder & Silverman, 1988).

The types of learning style involved in this study were active and reflective learning styles, which postulated by Felder and Silverman (1988) in their learning style model. These learning styles were selected due to their relevance to the pronunciation teaching and learning process, which included listening activities, repetition, and tongue twister practice, in this study. Students with active learning style theoretically are those who like trying things, understand something better after they try it out, more easily remember what they have done and like working in groups (Felder & Silverman, 1988). With these characteristics, the researchers assumed that students with

active learning style might benefit from the tongue twister practice since they were guided to be actively engaged in practicing tongue twister in pairs to improve their pronunciation. On the other hand, students with reflective learning style are those who prefer to think about what they learn quietly first and prefer working alone (Felder & Silverman, 1988). During tongue twister practice, students with reflective learning style might feel more self-conscious and therefore reticent to try tongue twister out and to take risk making mistakes. Nevertheless, students with reflective learning style might benefit from listening activity and teacher's models during the practice. In a nutshell, active and reflective learning styles were taken into account in this study given that the characteristics of each learning styles might interact with the pronunciation teaching technique and in turn, result in a positive effect on students' pronunciation ability.

Despite the relation between the characteristics of the active and reflective learning styles to the pronunciation teaching and learning has been discussed, the role of the two types of learning styles to students' learning outcome actually remains unclear, especially in pronunciation. The investigation on these types of learning styles in relation to students' learning outcome is still rare. Most of the researchers who are interested in these types of learning styles only focused on finding the students' learning styles, for instance, El-Hmoudova (2014); Aziza, Yib, Alwic & Jetd (2013); Baldwin and Sabry (2010); Charlesworth (2008); and Judy & Moira (2007). One example of research studies which investigated these learning styles in relation to students' learning outcome was Wichadee (2011) who focused on students' reading comprehension. Furthermore, as there is not any wider study on the effect of tongue twister across learning styles, this present study was conducted to fill in the gap by examining the effect of tongue twister compared to repetition technique across active and reflective learning styles. This study further attempted to find which learning style benefit more from the use of tongue twister. The research questions are accordingly formulated as follows:

- 1) Is there any difference in pronunciation ability between the students who are taught using tongue twister and those who are taught using repetition?
- 2) Is there any difference in pronunciation ability between the active students and the reflective students?
- 3) Is there any interaction between pronunciation teaching techniques and students' learning styles?

Research Method

Research Design

To answer the research questions, the 2x2 factorial quasi-experimental research design was used in this study. Using this research design enabled the researchers to find not only the independent effect of the pronunciation teaching techniques on students' pronunciation ability but also the simultaneous effect of the teaching techniques and learning styles involved in this study. Based on the design, the independent variable was pronunciation teaching technique in the form of tongue twister and repetition. The dependent variable was students' pronunciation ability. Students' pronunciation ability in this study referred to their ability in pronouncing English vowels. The attribute variable was learning style which comprised active and reflective learning styles.

Participants and Setting

This study involved 34 first-year students from two intact classes of Intensive English course in English Department, Faculty of Teacher Training and Education, Universitas Lambung Mangkurat, Banjarmasin, Indonesia. The first class (Class A) was the experimental group who consisted of 17 students. There were 11 female and 6 male students in the group. The second class (Class B) was the control group who also consisted of 17 students. In terms of gender, the control group has the equal number of female and male students to that of the experimental group.

Treatment

Tongue twister technique as the treatment in this study was applied in the experimental group during Intensive English course. In the setting of the study, one of the learning objectives in Intensive English course is that the students are expected to be able to pronounce English vowels by comparing and contrasting English vowels in oral production correctly. Based on this objective, the treatment focused on the pronunciation of English vowels. The list of the English vowels as the learning topics and the materials of the vowels used in the experimental and the control groups were adopted from Orion (1997). It can be seen in Table 1.

Table 1. *The list of vowels as the topics used in this study*

No.	List of English vowels as the topics and materials in this study
1.	/i/ as in <i>see</i>
2.	/ɪ/ as in <i>sit</i>
3.	/eɪ/ as in <i>pay</i>
4.	/ɛ/ as in <i>met</i>
5.	/æ/ as in <i>cat</i>
6.	/ɑ/ as in <i>not</i>
7.	/aɪ/ as in <i>buy</i>
8.	/aʊ/ as in <i>now</i>
9.	/ə/ as in <i>up</i>
10.	/ɛr/ as in <i>sir</i>
11.	/ɔɪ/ as in <i>boy</i>
12.	/ɔ/ as in <i>all</i>
13.	/oo/ as in <i>no</i>
14.	/u/ as in <i>do</i>
15.	/ʊ/ as in <i>book</i>

The tongue twisters utilized in this study were adopted from Kisito (2006) and Hart (2008). They were practiced by the students based on the vowels learned in the classroom. For instance, when the students learned how to pronounce the vowels /i/ and /ɪ/, they practiced the tongue twisters "The sheep on the ship slipped on the sheet of sleet." and "The keen king kissed the quick queen on her green ring". As another example, when they learned how to pronounce the vowels /u/ and /ʊ/, they practiced the tongue twister "You can bake a kooky cookie or stew a stupid duck. You can look it all up in a cool cook book." The practice of the tongue twisters combined and contrasted not only two different vowels but also three or more different vowels in the middle of the treatment. For instance, the students practiced reading aloud the tongue twister *Betty Botter bought some*

butter, but she said "This butter's bitter. If I put it in my batter, it will make my batter bitter." to practice pronouncing the vowels /ɛ/, /ɔ/, /ə/, /ɪ/, and /æ/. The use of tongue twisters was considered beneficial for the students, for it is assumed that it helps them compare and contrasts the learned vowels correctly in oral production. The samples of tongue twister texts used in this study can be seen in Appendix A.

The implementation of the tongue twister in the experimental group started with the introduction of the English vowels and demonstration of how to pronounce them in words by the lecturer. The students listened to the lecturer and were given chance to repeat the vowels solely and in words. At the next step, the students got the texts of tongue twisters which contained the learned vowels. Before they practiced the tongue twisters, they listened to the tongue twister audio and listened to their lecturer modeling the tongue twisters. Afterwards, the students were asked to read the tongue twisters aloud several times along with the lecturer. At this moment, the students did not get any correction since the lecturer only noted problem areas on the copy of the text. After the problem areas were identified, the activity was continued by demonstrating line by line of the tongue twister to produce the problematic vowels and the students were asked to repeat the line. Subsequently, the students were asked to repeat the whole tongue twister slowly and then more quickly. The students then worked in pairs to take turns practicing the tongue twister as quick as possible without mistakes. The next meeting was started with the review of the vowels as well as the tongue twisters which have been learned. The procedure from the modeling to pair practice was repeated for the next vowels with different tongue twisters. The whole treatment was conducted for 14 meetings.

In contrast to the treatment in the experimental group, the control group practiced their pronunciation by using repetition technique only. The meeting started by listening to the audio of the vowels and repeating the vowels together. The students also listened to the lecturer demonstrating how to pronounce a list of words which contained the vowels and repeated after her. Moreover, the classroom activity involved identifying which vowels were located in certain words and was continued by using repetition technique.

Instruments

To measure the students' pronunciation ability, a pronunciation test was utilized. It was constructed by the researchers based on the English vowels which were taught during the study. The test consisted of 60 words and 14 sentences which comprised 40 assessed words. Each correctly-pronounced word was scored 1 point, so the maximum score was 100 points. The students were instructed to read aloud the words and sentences in maximum 5 minutes. The test was administered after the treatment was finished. The test is shown in Appendix B.

The second instrument was learning style questionnaire used to find the students' learning style and classify it into active or reflective learning style. It was adopted from Felder and Soloman's (1997) Index of Learning Style questionnaire on the part of active-reflective dimensions. The consideration of adopting the questionnaire was that it is widely considered as a reliable instrument (Felder & Spurlin, 2005) with valid scales (Cook, 2005) and evidence of construct validity (Litzinger, Lee, Wise & Felder, 2005). It consisted of 11 items. It was administered prior to the treatment. The students were required to fill in the questionnaire by selecting one of two options that applies to themselves. The first option in each item belongs to

the characteristics of active learning style, while the second option in each item belongs to the characteristics of reflective learning style. The scoring of the questionnaire was conducted based on the guidelines by Felder and Soloman (1997). The questionnaire can be seen in Appendix C.

The third instrument employed in this study was a questionnaire of students' perception of the implementation of the tongue twister. The data from the questionnaire were used to either support or clarify the effect of a tongue twister as viewed from the students' perception. The questionnaire consisted of 10 items with 4 Likert-scales. The students were asked to fill in the questionnaire by selecting 4 options indicating their perception of the use of the tongue twister in their class. The options ranged from scale 4 for "strongly agree" to scale 1 for "strongly disagree". The questionnaire is shown in Appendix D.

The data analysis primarily involved the students' scores from the pronunciation test and was performed by means of SPSS 18.0 version. The students' scores were first analyzed by using descriptive statistics. Following the descriptive statistics, the fulfillment of statistical assumptions was investigated to determine which inferential statistics was used in the next analysis procedure to analyze the data based on the research questions.

Results

Prior to the treatment, learning style questionnaire was administered to identify whether the students had active or reflective learning styles. Based on the analysis of the students' score from the questionnaire, 6 students had active learning styles and 11 students had reflective learning styles in the experimental group. In the control group, there were 8 students with active learning style and 9 students with reflective learning style. Thus, holistically, 14 students had active learning style and 20 students had reflective learning styles.

The students' pronunciation scores were analyzed and organized into descriptive data based on the groups. The descriptive data showed that the mean score from the experimental group was 86.2 with standard deviation (SD) of 8.03, while the mean score from the control group was 81.8 with SD of 11.21. Thus, the experimental group had higher mean score than did the control group with the difference of mean score of 4.4 points. The descriptive data of students' pronunciation scores from both groups are displayed in Table 2.

Table 2. *The descriptive data of students' pronunciation scores*

Group	N	Minimum	Maximum	Mean	SD
Experimental Group (Class A)	17	68	96	86.2	8.03
Control Group (Class B)	17	52	93	81.8	11.21

The students' pronunciation scores were also organized based on their learning styles. The descriptive data of the scores showed that the mean scores from the active students and reflective students holistically were 84.71 and 83.50, respectively. The rough difference in the mean score between active and reflective students was 1.21. This finding revealed that the active students obtained higher mean score than the reflective students did, but the difference was only a few points. Similarly, in each group, the active students outperformed the reflective students. The

students' complete scores can be seen in Appendix E. The descriptive data of students' pronunciation scores based on students' learning styles are shown in Table 3.

Table 3. *The descriptive data of students' pronunciation scores based on their learning styles*

Group	Learning Styles	N	Minimum	Maximum	Mean	SD
Both Groups	Active	14	65.00	93.00	84.71	8.18
	Reflective	20	52.00	96.00	83.50	11.08
Experimental	Active	6	80.00	91.00	86.83	4.31
	Reflective	11	68.00	96.00	85.91	9.68
Control	Active	8	65.00	93.00	83.13	10.22
	Reflective	9	52.00	92.00	80.56	12.51

The fulfillment of statistical assumptions was examined in terms of homogeneity and normality of the data. Levene's test in SPSS 18.0 was used to test the homogeneity of the data. Based on the analysis, the p -value from Levene's test for the data of pronunciation scores from both experimental and control groups was 0.211, while the p -value for the data based on the students' learning styles was 0.250. Therefore, the data were considered homogeneous since the p -values were greater than .05 level of significance. Moreover, Shapiro Wilk's test was applied to find if the distribution of the data was normal. Based on the test results, it was found that the data from the experimental group were distributed normally (p -value .102 > .05). However, the data from the control group and those based on the students' learning styles were not distributed normally (p -values .006, .011, .012 < .05). Given that only one statistical assumption was fulfilled, the data analysis was continued by means of Mann-Whitney U test to find the answers to the research questions.

The first research question dealt with the effect of tongue twister compared to repetition technique on students' pronunciation ability. Based on the result of Mann-Whitney U test, the obtained p -value was .201 which was greater than .05 level of significance (p -value > sig .05). Thus, the analysis result revealed that there was no significant difference in pronunciation ability between the students taught by using tongue twister and those taught by using repetition technique. The result of Mann-Whitney U test can be seen in Table 4.

Table 4. *The result of Mann-Whitney U test on the difference in pronunciation scores between the experimental and the control groups*

	Pronunciation scores
Mann-Whitney U	107.500
Wilcoxon W	260.500
Z	-1.278
Asymp. Sig. (2-tailed)	.201

The second research question was concerned with the effect of tongue twister compared to repetition technique on students' pronunciation ability across active and reflective learning styles. The result of Mann-Whitney U test indicated that the obtained p -value was .902. Since it was greater than .05 level of significance, it was concluded that there was no significant difference in pronunciation ability between the active students and reflective students in both groups. The result of Mann-Whitney U test computation for the second research question is presented in Table 5.

Table 5. *The result of Mann-Whitney U test on the difference in pronunciation scores between the active and reflective students*

	Pronunciation Scores
Mann-Whitney U	136.500
Wilcoxon W	241.500
Z	-.123
Asymp. Sig. (2-tailed)	.902

The third research question was formulated to find if the interaction among the variables. Two-way ANOVA analysis was undertaken to investigate the interaction and it resulted in a p -value of .817 which was greater than .05 level of significance. It was interpreted that there was no interaction between pronunciation teaching techniques and learning styles on students' pronunciation ability. The result of two-way ANOVA for the third research question is shown in Table 6.

Table 6. *The result of Two-way ANOVA on the interaction between the variables*

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Pronunciation Teaching Techniques*Learning Styles	5.483	1	5.483	.055	.817

The quantitative data were complemented with the qualitative data from students' perception on the use of tongue twister in learning English pronunciation. Based on the results of the questionnaire, the students generally indicated positive perception on the use of tongue twister. Most of them (70.57%) strongly agreed that the use of tongue twister motivates them to learn how to pronounce English vowels in words and sentences correctly, while the rest (29.41%) agreed with this statement. They also considered that learning pronunciation with tongue twister gave them excitement as shown by 52.94% of the students who strongly agreed and 47.06% agreed with this idea. In terms of tongue twister effects toward the improvement of the students' pronunciation ability, there were 41.18% of the students showing their strong agreement and the rest (58.82%) showing their agreement that the use of tongue twister provides them good pronunciation practice in comparing and contrasting English vowels. The next finding showed that 47.06% of the students strongly agreed and 52.94% agreed that learning English pronunciation by using and practicing tongue twister helps them to pronounce English vowels in words and sentences correctly and more

easily. Moreover, 52.94% showed their strong agreement on the benefit of the tongue twister in improving their fluency in English and 47.06% showed their agreement on the same point.

The subsequent finding showed that practicing tongue twister in pairs was beneficial for the students to learn and get feedback from each other since 47.06% of the students strongly agreed and the other 52.94% agreed with the benefit of the pair practice. This finding is confirmed by the next questionnaire item which was dominated by the students' strong agreement (76.47%) on their increased motivation to work collaboratively in pairs to pronounce English vowels correctly. Furthermore, most of the students (70.59%) strongly agreed that the use of tongue twister made them actively engaged in pronunciation practice. The last questionnaire item revealed an interesting finding. Only 35.29% of the students showed their strong agreement to the better learning experience provided by tongue twister implementation compared to repetition only. While 47.06% of the students agreed with this perception, 3 students (17.65%) disagreed that the use of tongue twister gave them better learning experience for pronunciation aspect than repetition only. All in all, the students in the experimental group regarded the practice of tongue twister beneficial for the improvement of their English pronunciation and fluency.

Discussion

This study revealed the effect of tongue twister on students' pronunciation ability across learning styles. Previous researchers, Turumi, Jamiluddin, and Salehuddin (2016), Zhang (2013), and Sitoresmi (2016) found that tongue twister contributed significant result in students' pronunciation ability. In contrast, the finding for the first research question of this study showed that there was not any significant difference on students' pronunciation ability between the students who were taught using tongue twister and those who were taught using repetition technique. This contradictory result might be caused by quite similar procedures in both of these techniques. Both in the implementation of repetition and tongue twisters, the students listen to the teacher modeling how to pronounce the words and repeat them after the teacher. What makes them different was that students in the experimental group used unique tongue twister texts to practice pronouncing the learned vowels. In addition, the students were asked to read aloud the tongue twister with different speed, namely from slowly and then more quickly. The students also worked in pairs to take turns practicing the tongue twister as quick as possible without mistakes. Thus, this study suggested that both tongue twister and repetition technique gave a positive impact on students' pronunciation ability. Furthermore, in some other previous studies, tongue twister technique was used in analyzing speech errors (Frisch & Wright, 2002; Keller, Carpenter, & Just, 2003; Goldrick & Blumstein, 2004; Acheson & MacDonald, 2009). In other words, it is used to work more on detail problems in pronunciation due to its segments from nearby syllables.

This study further revealed an insignificant difference in students' pronunciation ability across learning styles. It means that students with either active or reflective learning styles obtained equal positive impact from the use of tongue twister. This finding could be explained through the characteristics of each learning style which were accommodated by the procedure in implementing tongue twister in pronunciation teaching and learning. As previously outlined in introduction part, students with active learning style might learn pronunciation more easily as they tried the tongue twister out together with their partners. They directly immersed in active collaborative practice and could discuss with their partners. The activities they were engaged in definitely suited their

learning style. On the other hand, reflective students might get more benefit when they had the opportunity to listen to the audio of tongue twister and teacher's models carefully. These activities would help them understand how to pronounce the vowels well. Although reflective students theoretically do not prefer trying things out and work in groups (Felder and Silverman, 1988), in this study the reflective students only worked with one partner, so the tongue twister practice might not demotivate them. Moreover, reflective students could also observe and learn from their partner to read the tongue twister aloud correctly. In addition to the equal benefit as viewed from the matching characteristics of the learning styles to the practice of tongue twister, the data from students' perception also confirmed that both the students, with active and reflective learning styles, considered that practicing tongue twister helped them to improve their pronunciation.

The next important finding from this study was no interaction between pronunciation teaching techniques and learning styles. In other words, the main effect of the tongue twister and drilling techniques in this study did not rely on the students' learning style as the attributive variable. In spite of no interaction found, matching teaching technique and students' learning style remains worth trying to optimize the students' learning experience (Reid, 2005; Felder & Silverman, 1988). In the case of using tongue twister in pronunciation teaching and learning, this study suggested that the optimal use of tongue twister with listening activities, teacher's modeling, and peer practice could accommodate the learning need of both active and reflective learning styles. As it is seen from the questionnaire results, tongue twister technique, apart from its insignificant result in this study, conformed Sitoresmi's (2016) study to which he mentioned that it aroused students' motivation in pronunciation learning. Brown and Lee (2015) and Jones in Richards and Renandya (2002) statement that motivation is one of the factors that affect pronunciation was clarified. Therefore, tongue twister is worth using for it can enhance students' motivation in learning pronunciation.

Furthermore, this study also verified Harmer's (2007, p. 256) statement that tongue twister is one of the beneficial techniques to work with two or more contrasting sounds. Even though working with English sounds which were quite different from those in students' native language, learning pronunciation using tongue-twister made students felt much fun and enjoyment. It motivates them for mastering good pronunciation in almost native-like pronunciation. More importantly, among the five principles in teaching pronunciation mentioned by Murphy in Nunan (2003, p. 115-117), tongue twister covers three of the five principles for teaching pronunciation namely fostering intelligibility, keeping affective considerations firmly in mind, and avoiding teaching individual sounds in isolation. First, the students learned difficult sounds in an easier way. Second, the students' interest increased high as they developed new pronunciation habits from this tongue twister technique. The last, the students did not learn individual sounds in isolation as they practiced the sounds in whole phrases, short sentences, and interactive classroom tasks. In the long run, tongue twister technique gives the impact of making pronunciation teaching be more interesting and enjoyable.

Conclusions

This current study reached several conclusions. First, no significant difference was found in pronunciation ability between the students taught by using tongue twister and those taught by using repetition technique. This suggests that both tongue twister and repetition could give positive learning experience and enhance students' learning outcome. Second, there was no significant

difference in pronunciation ability between the active students and reflective students in both groups. Third, there was no interaction between pronunciation teaching techniques and learning styles on students' pronunciation ability. However, despite these insignificant results, the students' responded that they found learning pronunciation by using tongue twisters more interesting and enjoyable. Its components successfully made pronunciation learning easier especially on some difficult sounds, attracted students' interest, and avoided teaching individual sounds in isolation. There might appear one possible factor that contributes to the insignificant result of this study, namely the number of reflective students. In the experimental group, the number of reflective students was higher than that of the active students. This may influence the result of the difference in pronunciation ability across the learning styles. The recommendations for further researchers are to consider some overlap steps in both techniques and ensure an equal number of the learning styles group before research conduct is undertaken.

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Appendix A

Samples of Tongue Twister Texts Adopted from Kisito (2006) and Hart (2008) in This Study

/i/ /ɪ/

Keen king: The sheep on the ship slipped on the sheet of sleet. The keen king kissed the quick queen on her green ring.

/ɛ/ /ɪ/ /eɪ/

Seven slick snails: Seven slick slimy snails, slowly sliding southward.

/ɪ/ /æ/

Big black bear: A big black bug bit the big black bear, but the big black bear bit the big black bug back!

/æ/ /i/ /æ/

clam cream can: How can a clam cram in a clean cream can?

/aɪ/, /aʊ/

Quite how

/ay/ Quite nice white mice

/aw/ How now brown cow

/aɪ/

Copyright: When you write copy you have the right to copyright the copy you write.

/ɑ/

Doctor doctoring: When a doctor doctors a doctor, does the doctor doing the doctoring doctor as the doctor being doctored wants to be doctored or does the doctor doing the doctoring doctor as he wants to doctor?

/ɛ/, /ɑ/, /ə/, /i/, /æ/

Betty Botter bought some butter, but she said "This butter's bitter. "If I put it in my batter, it will make my batter bitter."

So, she bought some better butter, better than the bitter butter. When she put it in her batter, the butter made her batter better.

/æ/, /ɑ/, /aʊ/, /ə/, /aɪ/

Gnats are not now gnawing on the nuts at night.

/ə/ /ɜr/

Peter piper: Peter Piper picked a peck of pickled peppers. A peck of pickled peppers Peter Piper picked. If Peter Piper picked a peck of pickled peppers, Where's the peck of pickled peppers Peter Piper picked?

/ə/ /i/

Thirty three thieves: The thirty-three thieves thought that they thrilled the throne throughout Thursday.

/ər/

Whether the weather: Whether the weather be fine, or whether the weather be not.

Whether the weather be cold, or whether the weather be hot. We'll weather the weather whether we like it or not.

/ɔɪ/

Spoiled: The spoiled boy foiled the coy boy's joy by purloining his toy.

/ɔ/

Spell New York: Knife and a fork, bottle and a cork, that is the way you spell New York.

I thought of thinking: I thought, I thought of thinking of thanking you.

I saw Susie: I saw Susie sitting in a shoe shine shop.

/oʊ/

Joe: Joe told a joke he wrote on his own.

I know that's not the note that Noel wrote.

The coat from the coast cost more than most

/u/, /ʊ/

Food, book: Make some fun, funky food and with some luck

You can bake a kooky cookie or stew a stupid duck

You can look it all up in a cool cook book

Or you can find a good excuse why you shouldn't have to cook.

Appendix B**English Pronunciation Test used in This Study**

Name : _____

Class : _____

Read aloud the following words and sentences carefully. Time allocation: max 5 minutes

A. Vowels in words

1	receive	11	royal	21	hot	31	knee	41	noise	51	mosque
2	build	12	awful	22	ice	32	milk	42	pause	52	rhyme
3	ate	13	soul	23	ouch	33	cave	43	sew	53	vowel
4	kettle	14	too	24	umpire	34	guess	44	youth	54	sofa
5	gas	15	push	25	urge	35	laugh	45	could	55	shirt
6	occupy	16	people	26	oyster	36	college	46	caesar	56	toy
7	height	17	women	27	holt	37	guide	47	minute	57	law
8	out	18	tale	28	pose	38	cloud	48	cake	58	vote
9	trouble	19	said	29	flute	39	precious	49	head	59	goose
10	church	20	bank	30	foot	40	heard	50	cattle	60	butcher

B. Vowels in Sentences

1. At least you can give me a list.

2. The sheep are on the ship now.
3. I met my roommate yesterday.
4. Put the pepper on the paper.
5. He said he was sad.
6. There is a fat man with a rotten log.
7. Shut the door, or you'll be shot.
8. We tried to keep silent for a while when he doubt what he found in this town.
9. It occurred at this campus.
10. The worm is busy working.
11. We are annoyed by the voice.
12. Mr. Hoyle thought he had talked about the soil.
13. Paul bought a new note and a coat last week.
14. Choose the food which looks good.

Appendix C

Learning Style Questionnaire Active-Reflective Category (Felder & Soloman, 1997)

Name : _____ (M/F)

Class : _____

For each of the 11 questions below select either "a" or "b" to indicate your answer. Please choose only one answer for each question. If both "a" and "b" seem to apply to you, choose the one that applies more frequently.

1. I understand something better after I...
 - (a) try it out.
 - (b) think it through.
2. When I am learning something new, it helps me to...
 - (a) talk about it.
 - (b) think about it.
3. In a study group working on difficult material, I am more likely to...
 - (a) jump in and contribute ideas.
 - (b) sit back and listen.
4. In classes I have taken, ...
 - (a) I have usually gotten to know many of the students.
 - (b) I have rarely gotten to know many of the students.
5. When I start a homework problem, I am more likely to...
 - (a) start working on the solution immediately.
 - (b) try to fully understand the problem first.
6. I prefer to study...
 - (a) in a study group.
 - (b) alone.

7. I would rather first...
 (a) try things out.
 (b) think about how I'm going to do it.
8. I more easily remember...
 (a) something I have done.
 (b) something I have thought a lot about.
9. I am more likely to be considered...
 (a) outgoing.
 (b) reserved.
10. When I have to work on a group project, I first want to...
 (a) have "group brainstorming" where everyone contributes ideas.
 (b) brainstorm individually and then come together as a group to compare ideas.
11. The idea of doing homework in groups, with one grade for the entire group
 (a) appeals to me.
 (b) does not appeal to me.

Appendix D

Students' Perception Questionnaire on the Implementation of Tongue Twister

Name : _____ (Male/Female)

Class : _____

Put a tick (√) on the column provided to indicate whether you strongly agree, agree, disagree, or strongly disagree on each statement related to the implementation of **tongue twister** in learning pronunciation during Intensive English Course.

Questionnaire items	Strongly Agree	Agree	Disagree	Strongly Disagree
1. The use of tongue twister motivates me to learn how to pronounce English vowels in words and sentences correctly.				
2. The use of tongue twister makes learning experience more fun.				
3. The use of tongue twister provides good pronunciation practice in comparing and contrasting English vowels.				
4. Learning English pronunciation by using and practicing tongue twister helps me to improve my pronunciation. It helps me to pronounce English vowels in words and sentences correctly.				
5. Learning English pronunciation by using and practicing tongue twister helps				

me to pronounce English vowels in words and sentences more easily.				
6. Using tongue twister is a good way to improve fluency (<i>kelancaran</i>) in English.				
7. Practicing tongue twister in pairs is beneficial because my friend and I can learn the pronunciation and get correction/feedback from each other.				
8. The use of tongue twister motivates me to work collaboratively to pronounce English vowels correctly.				
9. The use of tongue twister makes me actively engaged in pronunciation practice.				
10. The use of tongue twister gives me better learning experience for pronunciation aspect than the use of drilling only (listen and repeat).				

Appendix E

Students' Pronunciation Scores from the Experimental and the Control Groups

Experimental Group				Control Group			
No	Students	Score	Learning Style	No.	Students	Score	Learning Style
1	FIM	94	Reflective	1	J	65	Active
2	LH	95	Reflective	2	PAD	85	Active
3	RCA	87	Reflective	3	Ays	92	Reflective
4	LIP	96	Reflective	4	PF	93	Active
5	HS	88	Reflective	5	N	88	Reflective
6	MA	68	Reflective	6	M	71	Reflective
7	MS	80	Active	7	AC	86	Reflective
8	ALA	90	Active	8	W	77	Reflective
9	AY	86	Active	9	ZFD	52	Reflective
10	HT	71	Reflective	10	LA	87	Active
11	VQM	84	Reflective	11	MAK	86	Active
12	MR	91	Active	12	DSS	70	Active
13	LL	84	Active	13	MRY	88	Reflective
14	RIL	90	Active	14	JR	93	Active
15	YHN	88	Reflective	15	M	88	Reflective
16	AY	95	Reflective	16	MAAK	86	Active
17	EK	79	Reflective	17	H	83	Reflective