



## The Effects of an Instructional Model Integrating Total Physical Response Method and Code-Switching Technique on English Ability of Kindergarteners

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### Abstract

The research studied the effectiveness of an instructional model integrating total physical response (TPR) method and code-switching technique on English ability of kindergarteners, aged 5-6 years old, at public schools in the central region, Thailand, under the Department of Local Administration. The sample consisted of 38 kindergarteners in Thesaban 1 Baan-Sampran school (the experiment group) and Thesaban 1 Wat Teandud school (the control group) in Nakorn Pathom Province. Research instruments were the test of English ability of kindergarteners, and the self-report of the satisfaction of learning English in the experimental group. Arithmetic means, standard deviation, and t-test were applied to analyze the results of the study. The research found that after the experiment, the score on English ability of the experiment group were higher than the control group with statistically significant differences at .01 level and the average satisfaction of learning English was 94.74%

### Introduction

Nowadays, English is considered an extremely essential tool for global communication. Moreover, English has become an essential part of academic assignments almost everywhere (CTN News, 2020). In many countries, the English language may not be used as a mother-tongue language, however it has been acknowledged as an official language in the nation. Being able to use the English language proficiently can increase the chance for a person to achieve many more benefits such as the ability to expand one's knowledge to information and content in the book and other media

published in English. Moreover, people who are capable to communicate well in English will have a good chance to be employed in a higher position with a higher salary and they can progress their job better than those who cannot use English well. As a result, today's educational institutions and parents agree on the importance of learning English at all levels. Providing English learning for young children is seen as an important foundation that can promote children's learning and ability to use English in their future life. According to relevant pieces of literature, several researchers revealed that learning English as the second language or foreign language in preschool-age shows positive effects in their studies. This

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is because children at this age are open minded and are able to mimic the sound and voice close to the native speakers. Children at the preschool age should be offered the language learning experience suited for their age-appropriateness and backgrounds. Learning and developing a foreign language or a second language should be focused on the development of listening, speaking, reading, and writing, respectively as the mother tongue language. Nevertheless, teaching and learning English in Thailand is mainly taught in the traditional methods which focuses on reading-writing and memorization. As can be seen, several studies have shown the conditions and problems of teaching and learning English in kindergarten classrooms in Thailand. The main issue was traditional teaching methods that most of the English learning process in Thailand is based such as following the book, doing worksheets and home exercises is a good practice, but this is not enough for a particular English level (CTN News, 2020). Also, some teachers may use an incorrect method that does not correspond to the linguistic principles and developmental theories; or they may focus only on the grammatical matters, reading, and writing, or content rather than the development of English skills of the learners. It also has been found that some activities provided by teachers did not attract the attention of children; as there was a lack of encouragement for the development of children at this age (Sumrankij, 2008). Also, there were some controls and forces in learning by rote learning rather than to provide activities to fit with learner's interests, which is contrary to the principles and theories of language learning (Kaenchan, 2002). Along with the society, the environment in Thailand makes it difficult for learners to speak English outside the classroom (Angwatanakul, 1996). This issue has a big impact on the majority of children as they may have a lack of English communication and experience; especially in listening and speaking. The student may obtain English knowledge however they may not be able to communicate in everyday life. The lack of motivation to learn and to improve their English skills can make the learner feel that learning English is difficult and far away from their life (Sumrankij, 2008). The issues mentioned above can cause children to be less assertive, be embarrassed to use their English skills or they may not cooperate in doing activities, may become bored, and may not accept to learn since they have a negative attitude in learning English. This can adversely affect the child's learning of English over time.

Acknowledging the problems stated above, it is necessary to provide the age-appropriate teaching and learning methods that correspond to the child's developmental stages as an effective way to develop English proficiency in children. Several studies have shown different methods of teaching English that are suitable for preschool children. One of the most effective and widely used teaching method is the Total Physical Response (TPR) method (Asher, 1979). However, teaching English to kindergarteners using only English can confuse young learners with the language they are being taught in and can result in making children afraid, stressed, not confident and they may have a bad attitude towards learning English. This can become a major obstacle to hinder children to reach their English skills and achievements in the future. Therefore, adopting Code-Switching techniques (Lin, 2012), which focused on language switching techniques, can allow the teacher to use their mother-tongue language to explain the meaning of the words. This method can help the learner to clarify the unclear meanings and can build up good teaching and learning atmosphere to support the learners with a positive attitude towards learning English. This can be another platform of English language experience as a foreign language learning to completely and effectively master the English competence for kindergarten children.

According to the research mentioned above, the researchers are, therefore, intended to develop an Instructional Model Integrating Total Physical Response Method and Code-Switching Technique to promote English proficiency of kindergarten. In addition, to present the results and findings of this model in the analysis part of the article.

## Objectives

The objectives for this research were

1. to compare the English language proficiency of the experimental group before and after the experiment.
2. to compare the English language proficiency of the experimental group and control group after the experiment.
3. to study the satisfaction of learning English in the experimental group after the experiment.

## Conceptual framework

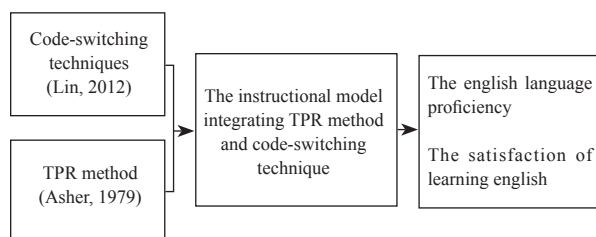


Fig. 1 Conceptual framework

## Research methodology

### 1. Population and samples

The population was kindergarteners age 5-6 years old who studied in 148 schools as a part of the Department of Local Administration, Ministry of Interior, from twenty-one provinces in the central region of Thailand, where the school provided English language teaching at the kindergarten level by Thai teachers. Multi-stage sampling was used to gather data. We also used systematic random sampling to collect data from Nakhon Pathom Province. The total number of the samples was 38 kindergarten children aged 5-6 years in two municipal schools; Thesaban 1, Ban Samphran (Nakhon Saraphadungwit) Kindergarten Room 2/4, as the experiment group; and Thesaban 1, Wat Teandud (Nakhon Phon Phithayakhan), Kindergarten Room 2/1, as a control group, in Sam Phran District, Nakhon Pathom Province.

### 2. Research instrument

2.1 An English Language Proficiency Test for kindergarten children.

2.2 A self-report of the satisfaction of learning English in the experimental group who received the

treatment in this study.

### 3. Collection of data

Researchers set a period of the experiment for 12 weeks. The instructional model Integrating Total Physical Response Method and Code-Switching Technique were used for 30 minutes a day during homeroom time (8.30-9.00). One learning unit was delivered from Monday to Thursday. The researchers have done pre-test and post-test to measure and evaluate the English language proficiency of kindergarten children as well as the retention by using the English language proficiency test as a parallel tool.

### 4. Data analysis

Arithmetic means, standard deviation, and t-test were applied to analyze the results of the study.

## Results

After the experiment of the Instructional Model Integrating Total Physical Response Method and Code-Switching Techniques on the English language proficiency and the satisfaction of learning the English language in the experimental group, the results indicated that the data supports the hypothesis. The average post-test score of English language proficiency of the experimental group was higher than the pre-test score. The statistical significance was at  $\alpha=.01$  level. Considering a behavioral indicator, each indicator had a higher average post-test score than pre-test. It indicates the statistical significance at  $\alpha=.01$  level. It can be inferred that kindergarten children who received the experience based on the developed model had a higher average score of English proficiency. They also had a higher score on the assessment of learning English satisfaction at 94.74 percent.

Table 1 A comparison of the post-test and pre-test score of overall English proficiency of the experimental group

English language proficiency	Behavioral indicator	Experimental group						
		Pre-test		Post-test		t	df	p
		$\bar{X}$	S.D.	$\bar{X}$	S.D.			
The comprehension of an english vocabulary/ sentence	Listening to English vocabulary and identifying the objects, items, or pictures which contain the same meaning.	5.89	2.38	11.32	0.67	-9.56	36	.00
	Listening to the instructions in English and being able to perform or gesture the physical movements.	5.32	2.50	11.00	0.94	-9.29	36	.00
	Total	11.21	4.59	22.32	1.25	-10.18	36	.00

Table 1 (Continue)

English language proficiency	Behavioral indicator	Experimental group						
		Pre-test		Post-test		t	df	p
		$\bar{x}$	S.D.	$\bar{x}$	S.D.			
The information transferring skills from what they have listened	Listening to a sentence in English and draw the pictures that represent the same/relevant word/meaning	4.26	2.02	11.42	0.69	-14.59	36	.00
	Listening to the questions in English and making a relevant answer	6.63	1.89	10.89	1.05	-8.59	36	.00
	<b>Total</b>	<b>10.89</b>	<b>3.03</b>	<b>22.32</b>	<b>1.38</b>	<b>-14.94</b>	<b>36</b>	<b>.00</b>
	<b>Total</b>	<b>22.11</b>	<b>7.07</b>	<b>44.63</b>	<b>2.27</b>	<b>-13.23</b>	<b>36</b>	<b>.00</b>

P&lt;.01

From Table 1, the results indicated that after the experiment, the experimental group showed a statistically significant difference in the post-test scores of the overall English proficiency score ( $\bar{x} = 44.63$ ) which was higher than the mean value of the pre-test score ( $\bar{x} = 22.11$ ) at  $\alpha = .01$  level. Considering a particular indicator, the results indicated that the experimental group had the same mean value on the comprehension of an English vocabulary/sentence and the information transferring skills from what they had listened to ( $\bar{x} = 22.32$ ). Besides, the results displayed the highest English proficiency score were listening to a sentence in English and drawing the pictures that represent the same/relevant word/meaning ( $\bar{x} = 11.42$ ) and the lowest average score was listening to the questions in English and making a relevant answer ( $\bar{x} = 10.89$ ).

From Table 2, the results indicated that the experimental group showed a statistically significant in the post-test scores of the overall English proficiency ( $\bar{x} = 44.63$ ) which was higher than the mean score of the control group ( $\bar{x} = 27.11$ ) at  $\alpha = .01$  level. When considering the details, the results indicated that the experimental group had the mean value on the comprehension of English vocabulary/sentences ( $\bar{x} = 22.32$ ) and the information transferring skills from what they had listened to ( $\bar{x} = 22.32$ ) which are higher than the score of the control group ( $\bar{x} = 16.15$ ;  $\bar{x} = 10.95$ ). Besides, it was found that after the experiment, the experimental group had the mean scores of English proficiency in all behavioral indicators including; listening to English vocabulary and identifying the objects, items, or pictures that have the same meaning

Table 2 A comparison of the mean value of the post-test score of English proficiency of the sample.

English language proficiency	Behavioral indicator	Experimental group						
		Experimental group		Control group		t	df	p
		$\bar{x}$	S.D.	$\bar{x}$	S.D.			
The comprehension of an English vocabulary/sentence	Listening to English vocabulary and identifying the objects, items, or pictures which contain the same meaning.	11.32	0.67	8.89	2.38	36	4.27	.00
	Listening to the instructions in English and being able to perform or gesture the physical movements.	11.00	0.94	7.26	2.94	36	5.27	.00
	<b>Total</b>	<b>22.32</b>	<b>1.12</b>	<b>16.15</b>	<b>4.83</b>	<b>36</b>	<b>5.37</b>	<b>.00</b>
The information transferring skills from what they have listened	Listening to a sentence in English and drawing the pictures that represent the same/relevant word/meaning	11.42	0.69	4.68	2.67	36	10.65	.01
	Listening to the questions in English and making a relevant answer	10.89	1.05	6.26	2.13	36	8.50	.00
	<b>Total</b>	<b>22.32</b>	<b>1.38</b>	<b>10.95</b>	<b>3.75</b>	<b>36</b>	<b>12.40</b>	<b>.00</b>
	<b>Total</b>	<b>44.63</b>	<b>2.26</b>	<b>27.11</b>	<b>7.29</b>	<b>36</b>	<b>10.00</b>	<b>.00</b>

P&lt;.01

( $\bar{x} = 11.32$ ), listening to the instructions in English and be able to perform or gesture the physical movements ( $\bar{x} = 11.00$ ), listening to a sentence and draw the pictures that represent the same/relevant word/meaning ( $\bar{x} = 11.42$ ) the average score of listening to the questions in English and make a relevant answer was ( $\bar{x} = 10.89$ ) which is higher than the mean score of the control group ( $\bar{x} = 8.89$ ,  $\bar{x} = 7.26$ ,  $\bar{x} = 4.68$  and  $\bar{x} = 6.26$ ).

The satisfaction in learning English of the experimental group was captured as a self-report made by the children in the experimental group. The data was analyzed by using percentages and presented in Table 3.

**Table 3** Results of satisfaction in learning English of kindergarten children (A self-report)

Time	Satisfied		Dissatisfied		Total
	n	Percentage	n	Percentage	
1	17	89.47	2	10.53	19
2	18	94.74	1	5.26	19
3	18	94.74	1	5.26	19
4	19	100.00	0	0.00	19
Total	72	94.74	4	5.26	76

The data from Table 3 displays that the average satisfaction of learning English in the experimental group who received the model of experience. The average satisfaction data is 94.74% and the average dissatisfaction is 5.26%.

## Discussion

The research findings revealed that the experimental group had a higher average post-test score ( $\bar{x} = 44.63$ ) than the pre-test score of the overall English proficiency. It shows the statistical significance at  $\alpha = .01$  level. When considering the behavioural indicator, the results indicated a statistically significant higher post-test score than pre-test of the overall English proficiency at  $\alpha = .01$  level. This is in accordance with several studies, Chen (2010); Patimah (2012); Yu (2012); Lin (2012), who emphasised that gesture-based learning and code-switching in kindergarten classroom enabled children to improve higher listening skills and vocabulary proficiency. In addition, this teaching model also offers a relaxing learning environment so that children can learn and explore the language activities with no stress.

Considering the development of English language ability of preschool children, it was found that the important key factors are:

### 1. Changing roles and responsibilities of English language teachers.

Teachers play an important role in helping to promote the English proficiency of kindergarteners. In the context of teaching English by Thai teachers, who are not native speakers, teachers use methods for children to memorize vocabulary by repeating after the teacher and focusing on writing the vocabulary. This seems to be the main obstacle to learning English for Thai children. This is in accordance with Sumrankij (2008); Kaenchan (2002) who addressed the problem of teaching English by Thai teachers was due to activities organized by teachers did not attract children's interests, there was a lack of encouragement and activities were not suitable for the development of children at this age. Besides, the teacher focused on rote-learning instead of hands-on learning, which is opposed to the principles and theories of language learning. As a result of the study, it was found that kindergarten children who received the experience model of the code-switching and the total physical response showed a higher English language proficiency than the ability before the experiment. It can be said that teachers must be aware of their roles and responsibilities to support young children to develop the second language learning experience.

1.1 Responding to children's feelings can make children feel familiar, warm, trusting, encouraging, and reduces stress. This is accorded with who said that when teachers give positive reinforcement and build a positive relationship during English language learning, it can help children to be more confident and able to extend their abilities. It is also consistent with Krashen & Terrell's (2000) who noted the natural language teaching principles and pointed out that teachers play an important role in easing the tension of children to lower a level of attitude estimator. This can support children to raise their self-confidence and receive better language information. This was evident from the behavior of the children during the experiment that in the first period of the experiment, children showed signs of stress, nervousness, and use of language expression uncomfortably. Nonetheless, when the researcher built the familiarity with children; by talking to them with a soft voice along with giving them a friendly action and gentle behaviour, and did not force them to speak English or perform language while they were not ready, this helped children to become more confident and willing to use new language in a fun learning atmosphere.

1.2 Observation is the key to understanding children when they need help; getting confused or showing uncomfortable or unconfident expressions. Being a good observer will enable the teacher to assist the learner promptly and meet the actual needs of the child. For instance, in the first part of the experiment, when the child was not yet familiar with the researcher and the researcher asked the children to draw the pictures, one child had not received a paper, but the child remained sitting still and did not ask the researcher for a paper. In this situation, the researcher observed the participants' behaviour and detected the problem and was able to resolve the problem immediately. In other cases, children may show their actions such as scratching their head, frowning their eyebrows when they do not understand what was said. The researcher needs to provide immediate help by giving the clues to help children explore the new language by themselves; such as using gestures, guiding questions, or giving the child options to choose an answer. However, when children do not understand, it is recommended to use mother-tongue language to assist the conversation. This is asserted by who stressed that one of the most effective strategies for helping children is the role of teacher or the adult to observe the child on their facial expressions, behavioural action, and eyesight to understand learners and to assist them to progress their competence.

2. Teaching methods that suit the developmental level and nature of kindergarten children.

Choosing a suitable teaching method for the developmental level and nature of young learners is essential in teaching English as a foreign language to children in preschool age. As children learn differently from adults. Young children love to learn by doing new things rather than staying still and they have a short span of attention. Children learning a foreign language should be taught in the same way as mother tongue language. As Krashen (1981) noted that teaching English to young children should not focus on a form and grammatical structure but should focus on meaning in communication, using body language and context to help the child to understand the meaning of the conversation. Overall, teaching a foreign language should not cause stress to children as stressed that the English teaching method should be easy to understand and offer the opportunity for young children to interact with others to develop fluency in the new language.

3. Mother tongue is an important tool for learning English as a foreign language.

Using only targeted language in the provision of teaching and learning of English as a foreign language to children in kindergarten who have just started learning a new language, may make learners feel stressed as they may not understand it. Switching to the mother tongue when necessary can create a good link to the previous knowledge and experience that the child has learned to a meaningful language learning. Linking familiar language skills to the prior language can help children to develop communication skills and develop abstract thinking which is more complex in a foreign language. It also helps children to feel good and relaxed to communicate freely with teachers and peers. This is asserted by who said that switching languages in the classroom allows learners to learn by communicating with others and help them not to feel neglected by the inability to communicate in a foreign language.

### **Suggestion**

The researchers have recommendations for using the research results and suggestions for further research as follows.

1. Suggestions for applying the research results

1.1 Teachers need to understand the developmental level of foreign language learning and the principles of teaching foreign languages for young children to be able to organize teaching and learning activities that are appropriate to the abilities of children at this age. As well as, the teacher must place importance on providing learning support (Scaffolding) for a child who may obtain the different language abilities to interact with both teachers and peers.

1.2 Teachers should gradually shift their teaching role to become a facilitator and allow children to play a role in helping their peers.

1.3 Teachers should focus on creating a warm and friendly learning environment and avoid making a stressful environment to provide opportunities for young children to demonstrate their competence and feel successful at work. Also, the teacher should support children by asking simple questions that are suited for every child and using a specific question for a child who may not be ready to talk yet. Along with giving positive reinforcement and motivation, this can encourage children to feel secure and trust their teachers during their learning.

1.4 This teaching method should be used for other levels of kindergarten ; especially in the beginners who are just starting to learn English.

## 2. Suggestions for the future research

2.1 It is recommended to study and develop a model of experience by integrating code-switching and total physical responses teaching methods to promote the English proficiency of preschoolers by applying a minimal pair of teaching to help children to learn the difference between sounds in English. This includes the initial consonant sound and the ending consonant sound which is different from the Thai language, for example, bag - black, hair - hand, ten - hen and some English consonant sounds that do not exist in the Thai language.

2.2 It is recommended to study a model of experience by integrating code-switching and total physical responses teaching methods to promote English proficiency in kindergarten in different regions of Thailand such as North, Northeast, and Southern areas.

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