

# Teacher Awareness on the Use of Physical Activities to Introduce English in Early Childhood Education

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**Abstract**— Physical activities provide many benefits for children and it stick to children daily activities, since children by nature love to play any physical activities. On the other hand, English, in Indonesian curriculum for Early Childhood Education is no longer allowed to be a subject being taught. Whereas, the Krasen critical period hypothesis argues that the earlier is the better for learning a new language. Therefore, it needs to be integrated to other subjects. This researcher aims to analyze the teacher's awareness on the use of physical activities to Introduce English in Early Childhood Education using a quantitative survey design. By administering a set of questionnaires which focused on 4 aspect namely teacher perspective about physical activities, teacher perspective toward English, teacher physical activities' preferences and teacher's preference on teaching English, this research explain the teacher awareness on the importance of English and physical activities as well as the integration of English in physical activities. Physical activities and English language are highly valued by teachers. However, even they favor the physical activities and English, it did not guarantee that they are aware on integrating English in their activities, either in physical or nonphysical activities.

**Keywords**--Physical activities, English, Early Childhood education, teacher awareness

## I. INTRODUCTION

Physical activities provide a lot of benefit for children either physically or mentally. Physically it gives protection from developing of coronary heart diseases, offer a longer life by controlling body weight, provide healthy growth and development of cardio respiratory system. Mentally, doing physical activity promotes mental and social health benefits including feeling happy and relax as well as a good sleeping quality. It is also hold important roles for children development such as improved health and well-beings, excel children social skill, higher children self-esteem, maintain an active and healthy lifestyle [1].

Research by Liu et.al discuss the benefit of Physical Activities in learning a second language (L2). An experiment group were assigned to cycling while memorizing a set of new vocabulary through word, sound and picture presentation whereas the control group were given the same task in a static condition. Within a week the group were tested using two types of task namely word picture verification task and semantic judgement task; the experiment group performed better not only in L2 vocabulary but also in sentence processing as well. Moreover, the advantage of the physical activity group last longer since a month after the training, both group were re-tested and yield the same result; the experiment group lead the performance [2].

The above research strengthens previous studies by Kuznetsova et.al and Kramer that "exercise positively effect cognition in several ways by slowing down age-related cognitive decline by allowing efficient allocation of attention, improving executive control functions" [2, 3, 4,]. It is also in line with the research by Schmidt-Kassow which indicated that exercise during learning improves vocabulary acquisition [5]. Meaning that by learning while doing exercise the vocabulary stiches easier and longer in our brain. However, all the researches were conducted to adult. Limited research had focused on the benefit of Physical activities for Children L2 learning.

Children by nature love to play any physical activities. According to the Teachers' Guide on Developing Fundamental Movement Skill, some physical activities that are suggested to be conducted for early ages (2- 6 years old) are climbing, line walking, underarm rolling, overarm throwing, catching large ball, sprinting, skipping, hopping, and jumping for height. To support their L2 learning in the context of doing Physical activities there are various stories, action songs and rhymes which encourage physical activities and implicitly mention the target vocabulary needed to be mastered; Humpty dumpty, five

little monkeys, move your body, ten little fingers, to name but a few.

It has been hypothesized that there is a critical period in learning language. Critical period hypothesis argues that there is a time in human development when the brain is predisposed for success in language learning [6]. According to this theory, the prepubescent's brain is like a sponge which easily absorbs all knowledge, learning, and experiences including learning second language. As Schovel emphasized "the younger the learner, the quicker the learning process and the better the outcomes" [7]. Therefore, introducing English in early ages are recommended and it can be started from the early childhood education.

Indonesia Early Childhood Curriculum adopted circle center learning system in which students are provided with various center such as center of Arts, center of Acts/Role Play, Center of Nature, etc. In the morning the students have a circle time with various activities as a warming up before they started the class. English is not allowed to be taught as a subject but it can be introduced to the students in any of their activity. This flexibility should allow teacher to be as creative as possible to present the English language. However, most of teacher that were interviewed were confused on how to familiarize English in their classes.

Awareness is "the capacity to recognize and monitor the attention has given or is giving something"[8]. A fundamental stage in the process of developing awareness is the teacher needs to understand their own beliefs and knowledge about teaching [9]. There is a general belief that high self-awareness has a strong correlation to high performance. Research on Assessing self-awareness: some issues and methods by Fletcher and Belley examines various ways of assessing awareness and found there is no consensus yet among researchers on how to measure awareness either statistically or conceptually. In addition to that, the paper also examining several papers on self-awareness toward formal organizational appraisal of performance and found that various ways of measuring self-awareness are neither necessary nor equivalent to performance. [10] However, Research by Liu and Oxford on *Understanding EFL Learners' Strategy Use and Strategy Awareness* found that students who are aware on the importance of English tends to perform better by employing the English strategy more often, meaning that the awareness of the language is equivalent to the awareness of learning strategy (metacognitive knowledge) which indirectly give a contribution to their performance [11].

This study defines teacher awareness on the use of physical activities to introduce English as a conscious understanding of teacher on their own beliefs and knowledge about the importance of English and the importance of physical activities to introduce English. Some key features of the teacher awareness modified from Baker on the use of physical activities to introduce English being discussed in this paper are [12]:

- An awareness of the importance of physical activities
- An awareness on physical activities being taught in early childhood education

- An awareness of the importance of introducing English in early ages
- An awareness of some activities to introduce English in early ages
- An awareness to introduce English (through physical activities) and nonphysical activities

Upon observing some activities in Early childhood education, it can be drawn that children are physically energetic, the daily routine involves many physical activities whereas the teachers give some instructions during the activities. This could be one alternative to introduce English vocabulary. Beforehand, the researcher needs to analyze the teacher awareness on the importance of Physical Activities as a media in Introducing English language for Early Childhood Education. Therefore, the question guiding the research is how is the teacher awareness on the use of physical activities to introduce English in early childhood education? The purpose of the study is to explain the teacher awareness on the use of Physical activities to introduce English in early childhood education. The result of the analyzation will be the baseline for the researcher to conduct the next action.

## II. MATERIALS AND METHOD

### A. Population and Sample

The present study was conducted in Kudus, a small city in Central Java. Participants in the study were teachers of Early Childhood Education Institution in Kudus. After spreading an online questionnaire randomly to Early Childhood Education School in Kudus, 14 schools were participating namely KB Muslim Ardi, Pos PAUD Demangan, KB Firdaus, KBAT Birul Walidain, KB Syamsa Auladina, Pos PAUD Kartika 1, KB ABA Janggalan, KB Nurul Iman, TPA Pertiwi 7, KB Al Qudsy, TPA Muslimat NU Wahana Cendekia, TK Negeri Pembina, KBIT Umar bin Khattab, TK ABA IV. Total respondent were 40 teachers consisted of a male teacher and 39 females teachers. The lowest education was high school diploma 22.5 % , followed by third year Diploma 2.5 % and the rest 77.5 % were Bachelor Degree. Most of the teachers (95%) were graduated on the year above 2000 meaning that they are young and productive.

### B. Research Materials and Method

A quantitative survey design were used. A set of questionnaires were designed and uploaded online and spread out to Early Childhood Education Teacher in Kudus. The questionnaire were opened from July 6, 2019 to July 26, 2019. There were four indicators involved in order to measure the teacher awareness on the use of Physical Activities to introduce English. The indicators and the items were not only had been validated by experts on Physical Education and English but also by validity and reliability test of SPSS. The first indicator involved in the study was on teacher perception on physical activities for early childhood education followed by physical activities being taught in early childhood education. The third was about teacher perception on introducing English for Early childhood education. Last but not least was asking about

Integration of English in daily activities, either physical or nonphysical activities. A statistical method were used to check each indicator above and an independent T-test were implemented to check whether or not there is differences on the activities to introduce English and whether or not there is differences on Language preferences in Physical Activities. Besides, a structured interviewed were conducted to better explain the information given by the teachers in their questionnaire.

III. RESULTS AND DISCUSSION

A. Teacher perception on physical activities for early childhood education

There were 5 statements administered to measure the teacher perception on Physical Activities for Early Childhood Education (ECE). 82.5 percent respondents were strongly agree and the rest 17.5 percent respondents were agree with the given statements. The result is shown in the following picture:

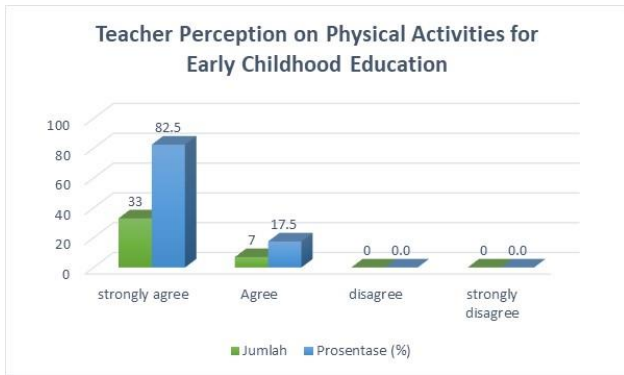


Fig. 1 Percentages of teacher perception on physical activities for ECE

From the figure we can see that most of the teacher are strongly agree on the benefit of Physical activities. Therefore, teacher believed that physical activities are beneficial for ECE in terms of fun and healthy, reducing obesity and other health problems and provide a room for children to spread their energy.

B. Physical activities being taught in Early Childhood Education

Motor skills namely running, ball games, jumping, kicking, climbing and dancing were used as some indicators of motor skill activities involved in early childhood education. The result are presented in the figure below:

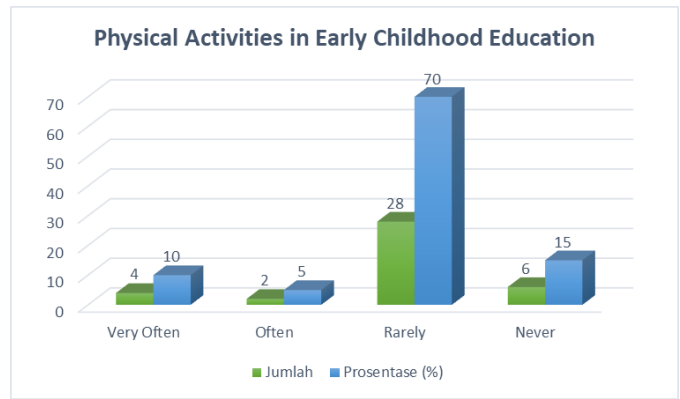


Fig. 2 Percentages of physical activities being taught in ECE

The data showed that 10% of the teacher were very often, 5 % often, 70 % rarely and 15 % never teach the given physical activities. Meaning that most of the teacher are implementing those physical activities with various intensity. Avoid combining SI and CGS units, such as current in amperes and magnetic field in oersteds. This often leads to confusion because equations do not balance dimensionally. If you must use mixed units, clearly state the units for each quantity that you use in an equation.

C. Teacher perception on introducing English for Early Childhood Education

The given statements in the questionnaire were: English is one of success keys to prepare for a good future, the earlier to learn English is the better, involving English in daily teaching will attract students to like English, English enrich student’s vocabulary. The responses are shown in figure below:

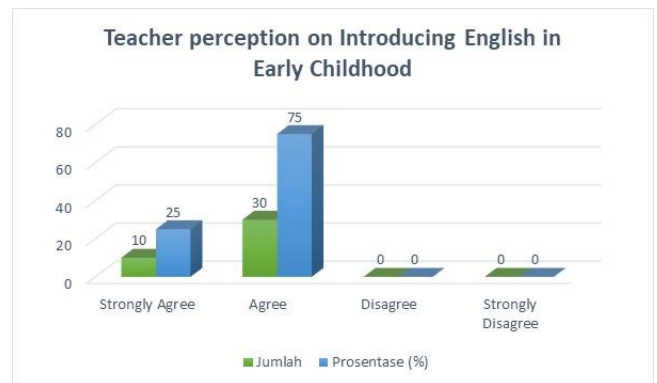


Fig. 3 Percentages of teacher perception on introducing English in ECE

The figure explains that 25% teachers are strongly agree and the rest 75% are agree that English is important and needed to be introduced in early age.

D. Teacher’s activities preferences on introducing English for ECE

Teacher’s activities preferences were categorized in two types namely physical activities and nonphysical activities. The physical activities include introducing English by giving instruction and examples of activities, playing roles, giving

order and direction. Nonphysical activities such as listening to English songs, telling story and watching video.

The result are shown in the figure 4 a and 4 b .

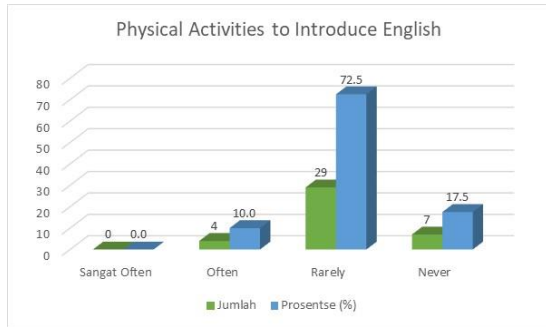


Fig. 4 a Physical Activities to Introduce English

For the first category which is physical activities to introduce English, it is known that 10% were often, 72.5 % were rarely and the rest 17.5% were never include any physical activities to introduce English.

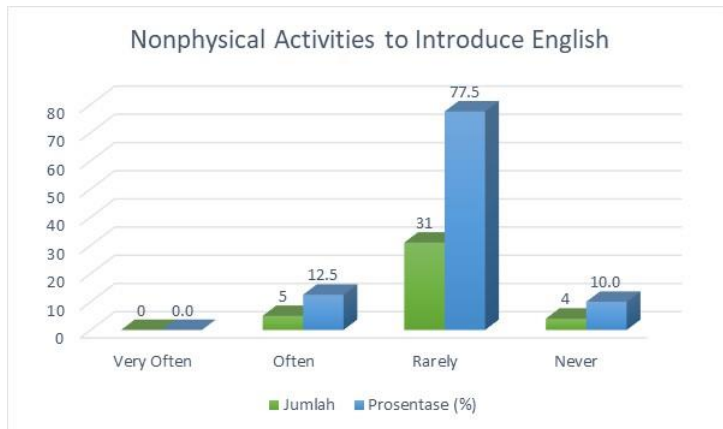


Fig. 4 b Nonphysical Activities to Introduce English

In the option of nonphysical activities to introduce English, 12,5% are often, 77,5 % are rarely and the rest 10% are never used non-physical activities to introduce English in their classes.

Independent T-Test

E. Physical and nonphysical activities in Introducing English

The research divided the activities to introduce English in ECE into physical and nonphysical activities. A test of independent t-test is implemented in order to find out whether or not there is differences on teacher’s preferences to introduce English in physical activities or nonphysical activities

$H_0$ : There is no differences of intensity in introducing English to ECE by using physical or nonphysical activities

$H_1$ : There is difference of intensity in introducing English to ECE by using physical or nonphysical activities

The independent t-Test result is as follows:

TABLE I. Independent t-test for Intensity

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
English introduction to ECE	Equal variances assumed	3,746	,057	4,469	78	,000	1,60000	,35806	,88716	2,31284
	Equal variances not assumed			4,469	67,426	,000	1,60000	,35806	,88540	2,31460

According to the table,  $Sig. = 0,057$  in Levene’s Test for Equality of Variances. Using degree of significance ( $\alpha = 5\%$ ) it is shown that  $Sig. > 0,05$  therefore  $H_0$  is accepted and it can be concluded that the data in this research is homogen.

In terms of independent t test the value is  $Sig. = 0,000$  in t – test for Equality of Means. Using degree of significance ( $\alpha = 5\%$ ) it is shown that  $Sig. < 0,05$  therefore  $H_0$  is rejected and it can be concluded that there is differences of intensity in introducing English to ECE by using physical or nonphysical activities.

F. Language Preferences in Physical Activities

This research examines language used by ECE teachers during the physical activities. Three languages were examined i.e English, Indonesia and local language. An independent t-test is employed to find whether or not there is differences in teacher’s language preference during the physical activities.

$H_0$ : There is no difference of language integration in physical activities for ECE either using English, Indonesia or local language

$H_1$ : There is difference of language integration in physical activities for ECE either using English, Indonesia or local language

From the t-test of independent the result is as follows:

TABLE II.Independent t-test for Language Integration

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Languages Integration in Physical Activities	Equal variances assumed	24,693	,000	-	78	,763	-,25000	,82452	-	1,39150
	Equal variances not assumed			-60,947	,763	-,25000	,82452		-	1,39877

According to table 2,  $Sig. = 0,000$  in Levene’s Test for Equality of Variances. Using significance value of ( $\alpha = 5\%$ )

it can be shown that  $Sig. < 0,05$  therefore  $H_0$  is rejected and it can be concluded that the data is not homogen.

In terms of independent t test,  $Sig. = 0,763$  in column t – test for Equality of Means. Using significance ( $\alpha = 5\%$ ) the value of  $Sig. > 0,05$  therefore  $H_0$  is accepted and it can be concluded that there is no differences of language integration in ECE either using English, Bahasa or local language.

Therefore, the teachers in Kudus are mostly have a high perception on physical activities. They are also aware on some benefits of physical activities for children. The intensity of Physical activities involved are vary from very often to never, but most of them answer rarely teach the physical activities. From the observation in teaching and learning process, the students were actually doing some physical activities with teacher's guidance but the focus of the activity is not on the physical but as support for other learnings, e.g. jumping several blocks and counting number of the block in which they jumped (teacher focused on teaching how to count). In another case; passing ball to certain direction with focus on introducing direction. Therefore, teacher did not feel that they teach the physical activities but it is integrated to other focus of studies. It can be a reason on why the teacher answers are likely not to involve many physical activities in their teaching and learning, since they regards the physical activities as noncurriculum activities. In addition to that, physical activities also involved a lot during break times, before and after class activities when children running with their friends, walking on the bridge, jumping and playing on the playground. This fact strengthens the opinion that physical activities can be integrated with other subject not to mention English.

Regarding to the next question on teacher perception on the importance of introducing English in ECE. All of teachers agree that English is important to be introduced in early age, and 25 % are strongly agree with the opinion. They do believe on the Kreshen's critical period hypothesis that the earlier is the better meaning that the teacher are certain that early ages is the best time to learn language. However, after another set of question being asked related to the involvement of English in their daily activities either physical activities or nonphysical activities. Most of the teacher 87.5 % rarely integrate English and 5 % never integrate English in their daily teaching and learning. An interview was conducted to confirm the reason behind it. It found that most of them did not know how to integrate the English. When the school principal asked them to put English as an extra activity, the teachers got confused on what to do and how the step should be. Besides, the teacher also have limited knowledge on the English so they do not feel confidence to involve English in their daily teaching. In addition to that, the teachers were worried if they make mistake either in pronunciation, word choice and vocabulary. Therefore, they rarely and almost never expose the language during their daily teaching. A longitudinal study conducted by Rubinov [13] on the effects of exposure to richly inflected speech from birth, mentioned that amount of exposure is very essential for development of bilingualism. Therefore, the fact that teacher rarely involved English in daily teaching and learning are disadvantaged children's language learning. In addition to that, the lack of teacher's knowledge about English

limit the English language exposure to children in their golden period.

In short, physical activities and English language is valued by teachers of ECE. They are aware on the importance of both. However, even they favor the physical activities and English, it doesn't guarantee that they are aware on integrating English in their activities, either physical or nonphysical activities. Considering the flexibility of physical activities to be integrated with other subjects and upon evaluating previous research being discussed on the benefit of physical activities [3; 6; 7], an intensive teacher training on how to integrate English in physical activities need to be implemented to overcome the teacher's problem and to build a high awareness on the importance of introducing English in early age.

#### IV. CONCLUSION AND SUGGESTION

On the basis of findings reported above, it seems that the teacher awareness either on the important of physical activities or English are high. However, their awareness to introduce English or physical activities is very low. It should be kept in mind that most of them have limited knowledge on English. Therefore, give an intensive English preparation program for the teacher is crucial to help them better prepare for incorporating English in teaching and learning. Additionally, the teacher also perceives physical activities as support to other learnings. Thus, train the teachers to integrate English in physical activities are likely lead to a solution this research has been searching for which is to give a space for introducing English in Early childhood education without changing the curriculum designs.

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