

## Physical activity and motivation for learning English as a foreign language in young children in Ecuador

### Actividad física y motivación al aprendizaje del inglés como lengua extranjera en niños pequeños de Ecuador

\*Erick Fernando Pacheco Delgado, \*\*Jhonny Villafuerte-Holguín, \*\*Jean López Vélez

\*Universidad de Investigación de Tecnología Experimental Yachay (Ecuador), \*\*Universidad Laica Eloy Alfaro de Manabí (Ecuador)

**Abstract.** The exploration of English as a foreign language (EFL) instruction in public elementary schools in Ecuador shows the necessity of improving teaching and learning methodologies, where instructors have limited experience working with young children. This study set out to investigate the usefulness of dancing and singing to increase young children's motivation for learning EFL vocabulary. This work used the paradigm post-modern and mixed research approach. The participants were 75 people, sixty-five students, and ten instructors from 3 elementary public schools located in the province of Manabí, Ecuador. They took part in an educational intervention that combined the national curriculum for English as a Foreign Language subject and the Total Physical Response methodology during 2019-2021. Data for this study were collected using semi-structured interviews, direct observation, and the assessment vocabulary learning rubric of Windi (2017). The results offer some important insights into meaningful learning when students had physical movement in their classes. There were significant differences between pretest and post-test in motivation for learning and vocabulary acquisition when instructors expose learners to dancing and singing supported with lyric videos in the English language. This investigation results show that dancing as part of Total Physical Response activities could contribute positively to the participants' motivation for learning new vocabulary. However, it persists in the parent's and schools' administrators the preconception that traditional methodologies allow keeping the class control.

**Keywords:** Childhood; English as a foreign language; teaching innovation; total physical response.

**Resumen:** La exploración de la enseñanza del inglés como lengua extranjera (EFL) en las escuelas primarias públicas de Ecuador muestra la necesidad de mejorar las metodologías de enseñanza y aprendizaje, donde los instructores tienen una experiencia limitada trabajando con niños pequeños. Este estudio se propuso investigar la utilidad de bailar y cantar para aumentar la motivación de los niños pequeños para aprender vocabulario de EFL. Este trabajo utilizó el paradigma posmoderno y el enfoque mixto de investigación. Participaron 75 personas, sesenta y cinco estudiantes y diez docentes de 3 escuelas primarias públicas ubicadas en la provincia de Manabí, Ecuador. Participaron en una intervención educativa que combinó el currículo nacional de la asignatura de Inglés como Lengua Extranjera y la metodología Total Physical Response durante 2019-2021. Los datos para este estudio se recopilaron mediante entrevistas semiestructuradas, observación directa y la rúbrica de aprendizaje de vocabulario de evaluación de Windi (2017). Los resultados ofrecen algunas ideas importantes sobre el aprendizaje significativo cuando los estudiantes tenían movimiento físico en sus clases. Hubo diferencias significativas entre la prueba previa y la prueba posterior en la motivación para el aprendizaje y la adquisición de vocabulario cuando los instructores exponen a los alumnos a bailar y cantar con el apoyo de videos con letras en inglés. Los resultados de esta investigación muestran que bailar como parte de las actividades de Respuesta Física Total podría contribuir positivamente a la motivación de los participantes para aprender nuevo vocabulario. Sin embargo, persiste en los administradores de las escuelas y padres de familia la idea preconcebida de que las metodologías tradicionales permiten mantener el control de la clase.

**Palabras clave:** Infancia; inglés como lengua extranjera; innovación docente; respuesta física total.

## Introduction

English as a Foreign Language (EFL) instruction is still a challenge for Latin American countries where the population's EFL knowledge is still a weakness.

In the case of Ecuador, government policy for education added EFL subject from the 2<sup>nd</sup> year in the national curriculum of the elementary schools in 2016. However, motivational instruction is requested to improve learners' knowledge. Thus, Ecuadorian children have a high enthusiasm for following EFL classes generally. However, young children (5–7-year-old)

require innovative didactics to improve their memory for learning new vocabulary (*Mariyam and Musfiroh, 2019*). Generally, EFL instructors use mimes to help learners to understand new words meanings during formal classes at schools. They also describe the words meaning and present phrases related to the context they live, but using environments without any motivational element as movement, color, or sounds (*Khakim and Anwar, 2019*).

This work proposes dancing and singing as didactics which are part of the Total Physical Response (TPR) methodology, expecting to contribute to the improvement of current EFL instruction in Manta, Ecuador. Furthermore, physical activity is an ideal route for teaching English through the combination of controlled movement activities and educational games to activate

Fecha recepción: 27-06-21. Fecha de aceptación: 01-02-22

Jhonny Villafuerte-Holguín  
jhonny.villafuerte@uleam.edu.ec

children thinking and cooperation for learning (García-Jiménez et al., 2015). In addition, it works as a glue that joins the elements as beliefs or backgrounds, inspiring creativity to create more attractive and dynamic learning practices (DiDomenico, 2017). Thus, Ibrohim et al. (2018) argued that an important part in the acquisition of a new language is the vocabulary, which allows learners to communicate their feelings and needs more efficiently.

Thus, sports, games, dance, and other physical activities encourage learners to participate actively in dialogues and social interactions using a foreign language (Hernando et al., 2017). Nevertheless, there is limited research on the relevance and efficiency of articulating sport to the learning of a foreign language in childhood ages in Ecuador. Even TPR has a more friendly operational way being more efficient for helping students to learn English vocabulary in comparison to the traditional teaching methodology (Susanti, 2019).

During the pandemic for COVID19, instructors of all the subjects reorganized their subjects' contents to adapt their classes to the online method worldwide. A significant controversy was the feasibility of students' learning evaluation (Baena et al., 2020). Ecuador was reported as one of the most affected countries of the region because of the number of infections of COVID19 in consequence, students' mobilization was limited after closing schools in April/2020. Besides, instructors permanently reviewed their procedures to introduce changes in didactics expecting to help learners improve educational results under new conditions of living (Rueda et al., 2020). Thus, dancing among other activities that promote students' body movement can be introduced in online instruction supported by Total Physical Response to increase early children's motivation for learning a foreign language (Sari et al., 2021).

The authors' motivation to research Total Physical Response (TPR) in EFL instruction is offering to teachers' strategies to create more enjoyable learning environments for improving young children EFL acquisition process. In the scenario described, the first section of this work will review the scientific literature on Total Physical Response in the English language instruction, Total Physical Response as children's motivator for learning a foreign language, and dance and music contribution in the foreign language acquisition process. This experience had the collaboration of students and teachers from two elementary schools located in Manta, Ecuador. This experience was run in the period April 2019 - March 2020. The methodology

used in this work is mixed and the research questions to answer are:

1. What are teachers' experiences using Total Physical Response (dancing and singing) in EFL class?

2. What are the changes in young children motivation for learning vocabulary when using Total Physical Response (dancing and singing) in EFL class?

3. What are the changes in students' English language vocabulary acquisition when using Total Physical Response (dancing and singing) in EFL class?

This work aims to increase early children's motivation for learning vocabulary in the English as a Foreign Language class using dancing and singing activities.

## Literature review

### *Total Physical Response in the English language instruction*

Total Physical Response (TPR) is adapted to the needs of children and their instructors, but it must be complemented with less physically demanding tasks where songs and games are excellent strategies to put into practice what has been learned in conventional classes. However, some children do not like to keep up with activities after exposure to several sessions using this method (Canga, 2012). In their analysis, Baena and Granero (2015) identify that physical activity brought to formal classes contributes to the strengthening of students' autonomy and the emergence of social relationships that stimulate the intrinsic motivation of the student. In addition, the practice of physical activity outside the classroom setting is encouraged, in consequence, acquisition of habits and adherence to sports practice.

TPR combines psychology and human movement principles to increase the students' confidence tracing their memory towards a foreign language in a natural way (Saehu et al., 2017). Evidence shows children have a good acceptance of this method, allowing students to improve their vocabulary acquisition through the physical and verbal movement articulated to a foreign language acquisition process (Nafkhatul and Taraindya-Zulhi, 2017). One of the most common instructors' difficulties is to find a methodology to teach vocabulary to early childhood because, at this age, children cannot write or copy words, and memorize them without a permanent usage and repetition in activities they do commonly (Ibrohim et al., 2018).

Teachers are not comfortable using music and dan-

cing in their language practices because, they do not have evidence of its real impact on students learning process (King, 2018). However, when instructors use sports, games, dancing, and other similar activities they teach in a more entertaining way (Co'ar and Orhan, 2019). In addition, Englishtina (2019) states that TPR incorporates skills and language interaction meanwhile learners execute instructions given by the teachers. Such experience support learners to feel themselves well prepared and confidence to use new words in a foreign language practice. Thus, TPR can help learners perform their body movements at the same time they practice a language to reach better levels of performance. Then, TPR has three roles as (1) order taker, (2) model provider, and (3) activity monitor.

According to Khakim and Anwar (2019) teachers support students learning helping them to understand vocabulary and the correct ways to describe everyday situations in the use of the target language. Thus, TPR method contributes the children learning process making the classes fun for reducing the monotonous traditional classes focus on the teacher (Susanti, 2019). Besides, *Mariyam & Musfiroh* (2019) argue that children show a great initiative for the development of learning through the EFL vocabulary acquisition. They dominate the use of different categories of words used in diverse levels of complexity. TPR focused on stimulation through a response, this method helps students to learn through movements.

### ***Children's motivation for learning a foreign language using Total Physical Response.***

The term motivation can be understood as an issue in the field of human psychology which involves biological functions, cognitive aspects, and social regulation. It involves energy, direction, persistence and equifinality related to human activation and intention (Ryan and Deci (2000). In addition, professionals, learners, religious leaders among others, involve mobilizing others to act and complete a series of tasks having in mind to satisfy their needs. People can be motivated because they deeply value an activity or because there is strong external coercion. Such contrasts between internal and external factors conform to motivation.

In the academic context, intrinsic motivation is based on satisfying people's needs. This generates a more democratic link in the educational context that should be strengthened. This implies having teachers committed to the subjects they teach, the way of

transmitting them and the way of relating to students, therefore, communication between teachers and students must be transformed into a horizontal harmony (Ryan and Deci, 2015). Thus, Orbegoso (2016) argues that people who are motivated will be more productive than those who are not. Therefore, they achieve better performance, and these are related to the degree of motivation that they direct towards the fulfillment of a specific activity. People who act with self-determination are more committed to fulfilling their tasks.

Motivation is understood as the people's strength to work on something until they achieve the expected goal. Therefore, it is a relevant key factor that affects the academic part of students being failure or success within their studies (Al-Ta'ani, 2018).

Dias and Hernández (2010) raise the relevance of motivation for learning which requires curricular planning processes that motivate students to learn a foreign language. They suggest considering in the lesson planning the elements: students' interests, institutional policies directed to the achievement of academic objectives, promotion of the students' autonomy for learning, participation of students in the lesson planning process, determination of subject purposes, and giving information to students about their performance and steps to improve their knowledge.

Motivation for learning ratifies its contribution as an essential factor in reaching learners' communication on the use of a foreign language, helping learners develop listening, reading, writing, or speaking skills constantly and progressively (King, 2018; Tobar and Álvarez, 2018).

Young children have movement as an everyday activity because they do it at home. For example, dancing and singing motivate learners and help them reduce the learning complexity barrier, allowing them to respond more efficiently to teachers' instructions (Yusuf and Rusdi, 2017). Nevertheless, incorporating technological tools into a new language learning process allows students to increase their interest and motivation to study EFL (Kreutz and Rhodin, 2016).

Music and movement provide students with the motivation for learning probably because of diverse, colorful, new, and sound characteristics. Those renewable resources may help children to break the ice at the beginning of a language lesson, creating a more positive atmosphere for learning (Kovacicova, 2018). Early children meet for the first time, different dancing steps, practice and use them to encourage their artistic expression (Amutan et al., 2018).

When teachers select their didactic material, they

think about the most appropriate pieces according to learners' ages and needs (Shi, 2018). Thus, dancing as a motivational act can be extensively used in language training centers, expecting to enhance children's vocabulary learning (Tobar and Álvarez, 2018). Furthermore, teachers adapt classes and didactic material to their learners' motivation and need to achieve class achievement (Purnama et al., 2019). However, a large amount of learning material is available in English, being one of the main factors that influence the learners' curiosity (Siregar and Siregar, 2020). Consequently, songs motivate sources that benefit students' foreign language learning process in vocabulary acquisition, pronunciation, listening, and memory improvement (Ningsih, 2019; Kralova et al., 2021). In addition, music can help to improve those disruptive behavior appearing in some learners when must face complex lessons. It can help students memorize new language patterns, facilitate the assimilation of grammar rules, and relax after mastering a complex topic without departing from the main lesson's topic (Vishnevskaja and Zhou, 2019). Therefore, teachers need to provide feedback for the students to help them learn from their mistakes (Sari et al., 2021).

#### ***Dance and music contribution for vocabulary acquisition***

According to Canga (2012), the use of songs and rhymes is favorable for children's learning. However, it is common that in their execution they transform the class into a race around the classroom. Such a situation warrants the intervention of the instructor to avoid accidents and finally leads them to return to traditional teaching methods to maintain the order and discipline that is expected of a school.

To Didomenio (2017), music unites people regardless of their social status, beliefs, or background. Music used in schools allows changing the learning environments by providing constant harmony and participation. In addition, dance provides relaxation to some and creativity to others. It serves as a platform for the learner dance practicing (Yusuf and Rusdi, 2017). However, music is not present daily in classes, it is not established as a learning method yet, but through music, teachers allow learners to improve their integral development (King, 2018).

According to Amutan et al. (2018), dance produces more appropriate environments where for emerging in people the security sensation. Such an effect may be caused because people communicate in the same way

by practicing a speech until they can express it more naturally. Such activities represent a learners' challenge to reach, but they can also offer fun and meaningful experiences that active learning process (Nuraeni, 2019). Thus, music also helps teachers in cases where students are restless in classes. It allows students to assimilate and relate what they have learned without straying from the topic (Vishnevskaja and Zhou, 2019).

To Xia (2018), mastery of vocabulary is a key aspect to achieving efficient communication in any foreign language. In such a concern, songs can help learners to practice the new words in the target language because they use vocabulary in real and diverse contexts (Romaniuk, 2019). In addition, Pavia et al. (2019) stated that songs contribute to learners on vocabulary recognition, meaning connection, and collocation recognition. Therefore, Lestari and Hardiyanti (2020) state vocabulary acquisition process may challenge students' oral and written communication skills. In addition, songs can improve learners' vocabulary acquisition and retention in specially when instructors use slow beat songs.

Among the previous studies considered in this research is quoted the work of Windi (2017). She assessed English vocabulary acquisition in autistic primary school students before and after an educational intervention using the TPR method, reporting an increment of correct answers from 13.3% to 67.7%. Another study cited is Ummah (2017) who found that the young learners understood the commands given in a foreign language and knew how to practice the teacher's actions. In addition, the study of Fernández et al. (2018) presents two different strategies related to the achievement of a more balanced scenario in the field of bilingual instruction. The first strategy refers to teachers should empower the appropriate motivation for both female and male students EFL practice. The second strategy is to increase the motivation of learners using more friendly learning environments for their enjoyment. Finally, the work of Bonnin et al. (2020), considers that even dance offers students the opportunity to develop skills in terms of creativity, identity, and a sense of community. It seems that subjects of the curriculum do not use the dance contributions.

#### **Material and Methods**

This work is subscribed to the post-natural paradigm. It used the mixed approach of research to collect data and information concerning students'

motivation for learning and English language acquisition. This research was held during 2019-2020 in Ecuador. It used strategies presented by Buchanan and Bryman (2018) to analyze the information collected.

### Participants

The group of participants was made up of 75 people. They were 65 young children of the 2nd grade of elementary schools and 10 EFL teachers from public schools located in the province of Manabí, Ecuador.

Characteristics of the group of students are ages between 6 and 7 years, 55% female and 45% male. They have an EFL class for the first time. Thus, they have no previous knowledge of the English language. The intervention group was integrated by 35 very young learners and the control group was integrated by 30 very young learners.

Characteristics of the group of instructors are ages between 30 and 40 years, 70% female and 30% male. Their experience as EFL instructors is between 3 and 10 years. All they have B2 English language level according to the Ecuadorian regulations of the Ministry of Education. This group of participants is linked to the subjects of Educational Research of the program Pedagogy of the National and Foreign Languages of the Universidad Laica Eloy Alfaro de Manabí. However, children's parents and instructors had to accept their participation in this didactic experience before activities execution.

Table 1.  
The participants

Participants	Female	Male	Total
Intervention group	15	20	35
Control group	16	14	30
EFL teachers	8	2	10
Total	39	36	75

Resource: Research project register (2019-2020).

### Instruments

This research uses the qualitative and quantitative approaches. For qualitative information collection the focus group is the key instrument, meanwhile for the quantitative data collection were employed an observation form and a vocabulary knowledge evaluation rubric.

Focus group guide. – Researcher team designed *ad hoc* the instrument to collect information regarding 'Teachers' experiences using dance and singing in EFL practice'. The categories considered in this instrument were (1) activation of learning in children through stimulation with dancing in EFL practices, (2) dance

and movement as a cognition evaluation instrument, and (3) movement as a thinking process stimulator. This instrument was evaluated by a panel of specialists in the fields of EFL instruction, education management and Psychology. All of them have more than seven years of experience and are affiliated with a public university in Ecuador.

This instrument in its original version had 15 questions which were reduced to 7 by recommendation of the panel of specialists. Additionally, specialists suggested checking the syntax of every item to warranty easy comprehension of the key informants. Once the corrections suggested by the panel of specialists were executed, the instrument was used supported by an application for video conference.

Observation form. - This instrument's purpose is to determine changes in young children motivation for learning vocabulary in EFL. Observers assign a number from 1 (minimum) to 10 (maximum) to determine early children motivation for learning EFL. Observers consider the elements: (1) children collaboration in EFL class, (2) disposition to repeat movements, and (3) disposition to repeat vocabulary in loud voice. This instrument was evaluated by a panel of specialists in the fields of EFL instruction, Psychology, and Didactics. All of them have more than five years of experience and are affiliated with public elementary schools located in Manta, Ecuador. This instrument was used at the beginning and end of the process (pretest and posttest) during face-to-face classes, following the local regulations to avoid COVID19 infections.

Vocabulary acquisition assessment rubric. - This is a rubric to assess English language vocabulary acquisition in young children. The instrument was originally proposed by Windi (2017) to assess vocabulary learning in EFL students at high school. However, the version used in this experience was adjusted to young children and the online education environment. It consists of two moments: (1) Group evaluation: participants being in groups were asked about images of vocabulary taught during the educational intervention. (2) Individual evaluation: participants were evaluated individually following the same process. The scoring rubric indicates the response levels: (a) totally correct, (b) almost correct, (c) acceptable, and (d) incorrect.

A panel of specialists in EFL instruction evaluated the instrument. The panel of specialists recommended using the instrument before (pre-test) and after (post-test) in each session as a permanent evaluation procedure.



## Process

The activities executed in this process are explained below.

First stage. - It began with the selection of the elementary schools that took part in this research. The research team preselected ten elementary schools located in canton Manta, Ecuador. 3 schools confirmed their interest in participating in this research.

Second stage. – It consisted of the selection and adaptation of the research instruments to the social conditions of Ecuador and participants' age. In this stage were executed the panel of specialists.

Third stage. - It consisted in the execution of the educational intervention. This process included the administration of the pretest for vocabulary previous knowledge using the instrument of Wendi (2017) and the observation form for determining the participants' motivation state at the beginning of the process.

The educational intervention consisted of EFL practices supported with videos. In each vocabulary practice session, instructors should introduce the vocabulary to learn previously the practice with dancing and singing, and videos are used to practice the new vocabulary learned.

A session time using videos exposition should not exceed 35 minutes in total, instructors can use and repeat several times a video between 4 to 6 minutes. The

education intervention total length consisted of 12 sessions in 4 months.

Videos were selected from YouTube considering the following elements: (1) videos should have the Ecuadorian curriculum contents for the 2<sup>nd</sup> year of elementary school EFL instruction, images should be closely related to the set of vocabulary presented.

Fourth stage. - Data and information collection. It began with the focus groups carried out with the collaboration of the English teachers participating in this experience. The key informants were selected from three schools that participated in this process. This activity used the zoom application due to the restrictions due to the COVID19 pandemic. The focus group was recorded, and the information was processed with a technic of categorial and subcategories tree analysis.

Fifth stage. - The quantitative analysis was carried out through its nonparametric tests concerning the variable motivation for learning. The process was supported by the Statistic Package for Social Studies SPSS. V24.

## Results

The results presentation follows the order of the research questions that appear in the introductory section.

Table 2.  
Teachers' experiences using Total Physical Response in EFL class.

Categories	Teachers' voices evidences	Sub categories
Activation of learning in children through stimulation with dancing in EFL practices	GF1.P1.0:30 "Through dance, we can transmit a message, this has a lot to do with the brain because dance helps to express your emotions through coordination".	Neural development.
	GF1.P2.2:10 "Contributes to mental and physical balance. The brain works out by following the rhythms of music. This is a brain coordination activity."	Affection.
	GF1.P4.10:45 "I achieve the attention and collaboration of the children".	Physical laterality.
	GF1.P5.19:30 "Students usually communicate their feelings using body postures or movements. Teachers should be in attention of such process."	Collaborative work.
	GF2.P1.2:50 "It helps to control the energy of the group, unlike a monotonous class in which the children have a lot of energy collected in their bodies because, they spend all day sat down".	Neural development:
	GF2.P2.3:30 "Physical activity helps children to be more concentrated when they have linguistic practice using a foreign language, because they like to move. They really need the movements".	Energy management.
	GF2.P3.4:08 "Through singing stimulates and motivates to achieve greater verbal and physical expression".	Neural development:
	GF2.P4.6:30 "It is very important, because the first thing that must be developed is fine motor skills, knowing kids' right and left side, this allows children to keep a body balance.	Energy management.
	GF2.P5.24:00 "Kids communicate to others their feelings using their body language. However, when they spend hours and hours sat down it is hard to have the opportunity to express themselves".	Communication process.
	GF2.P5.24:00 "Kids communicate to others their feelings using their body language. However, when they spend hours and hours sat down it is hard to have the opportunity to express themselves".	Physical laterality.
Dance and movement as a cognition evaluation instrument resource.	GF1.P2.7:50 "The evaluations are carried out according to the planning of each course, but before the evaluations students relax dancing and singing".	Communication process.
	GF1.P3.8:20 "Checklists are prepared that include questions to assess the level of knowledge reached by the students".	Preparation for evaluations.
	GF1.P4.9:04 "I would ask students to make novel movements on the most used verbs in English".	Instruments for evaluation.
	GF1.P5.10:10 "Maybe create a dance step with progressive levels of complexity related to the subject.	Complexity levels.
	GF2.P1.11:20 "Evaluate perhaps, the speed with which the students execute the movements and the number of words that they remember".	Complexity levels.
	GF2.P2.08:00 "I would use dancing and singing as an assessment technique that can be adjusted to all subjects and checking learners' memory."	Memory training.
	GF2.P3.12:00 "Movements must be related to the contents of the subject. I can check with these practices the topics students remember".	Memory training.
	GF2.P4.11:00 "The students could relate the vocabularies studied with the movements carried out in a profession."	Contextualized evaluation.
	GF2.P5.15:10 "I am not aware of the use of dance to assess subjects, but I would use dance to give students the freedom to develop their skills and creativity."	Contextualized evaluation.
	Movement as a thinking process stimulator	GF1.P3.22:00 "Dance is related to neuroscience and the management of emotions.
GF1.P4.24:20 "Dance can be related and mentally processed with culture and with the ancestral legacy.		Cultural thinking.
GF1.P5.25:30 "Activates the hemispheres of the brain and activates people's thinking considering different points of view".		Mathematic and logic thinking.
GF2.P1.22:00 "People who practice dance improve their mastery of movement. In a similar way it happens when people think about solutions for math problems."		Mathematic and logic thinking.
GF2.P4.36:20 "The motor skills, both fine and gross, that are exercised with dancing and singing contribute to the development of neural branches that provide children logical thinking."		Mathematic and logic thinking.
GF2.P3.43:00 "Movement also helps a lot with memory, mental agility because, through this practice people understand situations and issues around them.		Cultural thinking.
GF2.P5.43:00 "Students think for possible solutions to the issues affect them. They relax their bodies doing movements and their affective thinking is activated.		Affective thinking.

Resource: Teachers' voices collected in focus groups (June/2020).

### Teachers' experience using Total Physical Response (dancing and singing) in EFL classes.

Table 2 shows the breakdown of the teachers' voices collected according to the focus groups about their experiences using dancing and singing in EFL classes. This categorial analysis used the following categories and subcategories tree:

(1) Activation of learning in children through stimulation with dancing in EFL practices. Subcategories: (1.1.) Neural development: Affections, energy management (1.2.) Collaborative work, (1.3.) Communicative process, and (1.4.) Physical laterality.

(2) Dance and movement as a cognition evaluation instrument.

Subcategories: (2.1.) Preparation for evaluations, (2.2.) Assessment tools (2.3.) Complexity levels, (2.4.) Memory training, and (2.5.) Contextualized evaluation.

(3) Movement as a thinking process stimulator.

Subcategories: (3.1.) Affective thinking, (3.2.) Cultural thinking, (3.4.) Mathematics and logical thinking.

### Students' motivation for learning EFL using Total Physical Response

Graphic 1 shows the changes detected in the participants' motivation for learning English as a Foreign Language when they were exposed to TPR activities. It shows a comparison of the pre-test and post-test in the young children's collaboration in class, disposition to repeat movements, and participants' volunteer for repeating vocabulary in loud voice. See Table 3.

Table 3. Changes in young children's motivation for learning vocabulary in English language.

Groups	Evaluation	Students sex	Motivation levels for learning EFL vocabulary						Total	
			4	5	6	7	8	9		10
Intervention group	Pretest	Female	0	1	4	4	6	0	0	15
		Male	1	1	3	7	7	1	0	20
		Total	1	2	7	11	13	1	0	35
	Posttest	Female	0	0	1	2	2	4	6	15
		Male	0	1	1	5	6	6	3	20
		Total	0	1	2	7	8	10	9	35
Control group	Pretest	Female	0	1	4	4	6	0	0	15
		Male	1	1	3	7	7	1	0	20
		Total	1	2	7	11	13	1	0	35
	Posttest	Female	1	2	4	4	5	0	0	16
		Male	0	1	1	3	9	0	0	14
		Total	1	3	5	7	14	0	0	30

Source: results of registers (Apr. - Jul. / 2020).

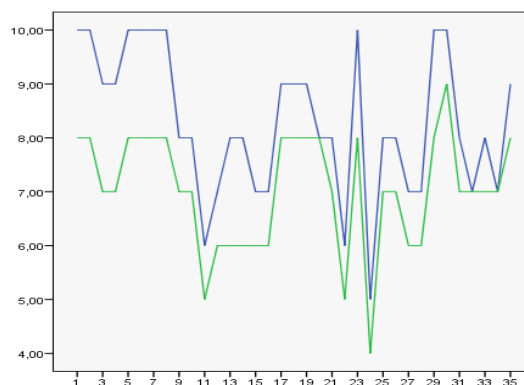
Note: Elements evaluated were (1) children collaboration in EFL class, (2) disposition to repeat movements, and (3) disposition to repeat vocabulary in loud voice.

Results show that young children's motivation for learning EFL increased from an average of 8.00/10.00 reported in pretest to 9.00/100 in the posttest. The maximum motivation level reported is 9.00/10.00 for 1 of the 35 participants which represent 1,50% of the intervention group. Meanwhile, the maximum motivation level reported in the post-test was 10.00/

10.00 in 9 of the 35 participants which represent 31,5%. In consequence, there is a significant increase in motivation for learning EFL in the intervention group in contrast to the control group in which no changes were reported. See table 3.

### Changes in students' English language vocabulary acquisition when using Total Physical Response

Students' vocabulary acquisition in the EFL. - The pretest represents the intervention group participants' knowledge of vocabulary in the English language before the exposition to classes using dancing and singing activities as Total Physical Response methodology. The post-test shows the children's vocabulary acquisition results after the educational intervention.



Graphic 1. Change in children vocabulary acquisition kn  
Resource: results of the test Windi (2017) (April-July/2020).

In the graphic is possible to compare the change in the number of words in the English language retained by the intervention group children before and after the educational intervention which used dancing and singing in English classes. The intervention group shows progress in comparison to the control group which does not report any change in the number of words retained by the children.

### Hypothesis evaluation

The null hypotheses are:

$H_{01}$ : No significant differences in motivation for learning EFL between the intervention group and control group.

$H_{02}$ : No significant differences in English vocabulary acquisition between the intervention group and control group.

$H_{03}$ : No significant differences between intervention group students' class participation, oral practice collaboration, class concentration, and physical movements repetition and the factor children' gender.

Table 5.  
Series normality test

Variables	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	gl	Sig.	Statistic	gl	Sig.
Motivation for learning without TPR	0.154	35	<b>0.034</b>	0.909	35	0.007
Motivation for learning with TPR	0.212	35	<b>0.000</b>	0.886	35	0.002
English language vocabulary_pretest	0.215	35	<b>0.000</b>	0.896	35	0.003
English language vocabulary posttest	0.197	35	<b>0.001</b>	0.884	35	0.001

The results of the Shapiro-Wilk normality test of the data series - motivation for learning and vocabulary acquisition- did not pass in both cases. Then, the team chose to use the nonparametric Wilcoxon test.

a. Motivation for learning. - The Wilcoxon test for the hypothesis motivation for learning shows a *p-value* = 0.000. Thus, it rejects the null hypothesis, and the alternative hypothesis is accepted. Consequently, there are significant changes between the pretest and posttest of student motivation for learning when the classes use dancing and singing as a teaching tool.

b. Vocabulary acquisition for learning. - The Wilcoxon test for the hypothesis vocabulary acquisition for learning shows *p-value* = 0.000. Therefore, it rejects the null hypothesis, and the alternate hypothesis is accepted. Consequently, there are significant changes between the pretest and posttest of vocabulary acquisition.

Table 6.  
Hypothesis evaluation

Hypothesis	Test	Sig.	Decision
No significant differences in motivation for learning EFL between intervention group and control group.	Wilcoxon	0.00	Reject the null hypothesis
No significant differences in English vocabulary acquisition between intervention group and control group.	Wilcoxon	0.00	Reject the null hypothesis

Asymptotic significances are shown. The significance level is .050.

## Discussion

Based on the literature review and results, the authors agree with the affirmations of Nafkhatul and Taranindya-Zulhi (2017) and Sari (2021) concerning Total Physical Response is a methodology that promotes the articulation of learners' thought and body movements for activating the process of learning.

In response to the question 1: What is teachers' experience using dancing and singing as Total Physical Response methodology in EFL class? based on the information collected from the EFL instructors, the authors ratify the position of Englishina (2019) when arguing that singing is a universal language that allows lowering the levels of stress and encourages learners' collaboration in the classroom.

EFL instructors recognize that dance and singing contribute positively to the early children EFL learning process. However, they are activities that instructors avoid using in formal education because they promote

disorder and noise in the classroom. Some of the evidence collected from instructors are:

«Parents believe that dance is not a learning activity without enjoyment and therefore do not support its frequent performance in the learning processes.» E2.31.

«The dance requires unusual music and movement in the school context, which generates noise and disorder; and although it is not an expensive activity to implement, the teachers acknowledge that it creates difficulties for them with the school authorities, especially in the more traditional schools.» E4.10.

«Dance undoubtedly promotes the generation of more relaxed learning environments. For its part, music has been frequently used in English classes, although in this case, the difficulty is in the selection of the ideal music; since the classes with a diverse population, minors have a wide diversity of preferences from a very young age.» E5.19.

Based on the results obtained in this work that show dancing and singing improve children vocabulary retention, the authors recommend to instructors the design of educational interventions that use music videos to introduce vocabulary in the English language at least once a week. These resources are available on YouTube and other social networks that distribute music videos.

In response to the question 2: What are the changes in young children motivation for learning vocabulary when using Total Physical Response (dancing and singing) in EFL class? a range of responses was elicited.

Based on the evidence collected in this work, the authors state that students' motivation increased in 100% of the participants. Such result ratifies the position of Windi (2017) and Ummah (2017) when they affirm that students retain more information and for a longer time when children associate the vocabulary to activities that involve body movement and singing repeating vocabularies in the target language.

The didactic use of EFL practices incorporating dance allows better learning environments where children feel more confident, resulting in a more efficient learning process because of motivation. They enjoy the activities they do by using Total Physical Response methodology, and as a result students show more participatory and positive attitudes in the process of EFL learning. However, teachers should select the didactic materials in harmony with students' age and needs.

At this point, it is emphasized that the teachers participating in this study coincide in pointing out the



lack of balance between the activities of reading, writing, listening, and speaking in the teaching of the English language. Most of the activities focus on reading comprehension and at times the traditional method that concentrates on learning grammar persists, causing children to lose interest in learning complex topics.

In response to the question 3: What are the changes in students' English language vocabulary acquisition when using Total Physical Response (dancing and singing) in EFL class?

All children who took part in this study increased the number of new English language words acquired when working with the TPR methodology. Dancing and singing contributed to the construction of more friendly and relaxed learning environments. Therefore, the authors of this work insist that teachers are permanent promoters of innovation for the improvement of education. Teachers are encouraged to incorporate dancing and singing into the educational processes they carry out, being consistent with Rueda et al. (2020) regarding the fact that education requires teachers with a global vision, capable of using innovative communication styles to overcome socio-educational problems in Ecuador, a result that is consistent with the position of Alemán et al. (2020) regarding the idea that each teacher should respond to their students' needs and the context.

Finally, the results of this research are consistent with the statements of Rueda et al. (2020) regarding the fact that teachers integrate the didactic, pedagogical, material, and human resources to plan and implement from the curriculum the adjustments and adaptations of the contents that contribute to the construction of the profile of the citizens of the XXI century.

## Conclusion

Based on the bibliographic review and the results obtained in this research, this work authors declare the fulfilment of the proposed objective presented in the introduction section. Thus, the Total Physical Response method can increase early children's motivation for learning vocabulary in English as a Foreign Language (EFL) class. The results obtained in this research confirmed that 100% of participants reported a relevant increment in the variable -motivation for learning vocabulary in EFL- in 1 to 2 levels as a result after the educational intervention which used musical videos containing vocabulary in English Language, selected according to the Ecuadorian EFL curriculum.

In addition, dancing and singing as didactics contribute positively to generating a more confident learning environment in the English classes for the groups that took part in this study. However, it is necessary to demonstrate to instructors that dancing and sing even the noise they may cause at the classroom, the benefit of their usage is worthy. In consequence, Total Physical Response stimulated children to participate more frequently because, children learned more and better when they have a funny way to do it.

The weakness of this work could be the limited corpus size which does not allow to do any generalization. However, this didactic experience can contribute to giving information to instructors about the benefits of introducing dancing and singing to EFL instruction and increase students' motivation for learning. This experience could open a work route to promote the teaching of English through TPR in Ecuador and other nations of Latin America. Other teams of researchers in the field of the EFL are invited to carry out new studies in this line of research.

## Acknowledgement

This work was supported by the research team of the projects «Comprensión Lectora y Escritura académica» of the Faculty Education Sciences at the Universidad Laica Eloy Alfaro in Manabí, Ecuador, and the research cooperation network «RED-LEA: *Cambiando vidas*».

## References

- Al-Ta'ani, M. (2018). Integrative and Instrumental Motivations for Learning English as a University Requirement among Undergraduate Students at Al-Jazeera University/Dubai. *International Journal of Learning and Development*, 8(4), 89-105. DOI: <https://doi.org/10.5296/ijld.v8i4.13940>
- Amutan, I., Sio, H., Jothi. S., Maruthai. E., & Ravindranath, L. (2018). Promoting Vocabulary Development Through Dance Education. Conference: International Conference on Education, Psychology, and Social Sciences. Thailand.
- Baena, S., López, J., & García, O. (2020). La intervención docente en educación física durante el periodo de cuarentena por COVID-19. *Retos*, 39, 388-395. <https://doi.org/10.47197/retos.v0i39.80089>
- Baena, A. and Granero, A. (2015). Educación física e intención de práctica física en tiempo libre. *Revista*

- Electrónica de Investigación Educativa*, 17(3), 132-144.
- Bermejo, J., Pulido, D., Galmés, A., Serra, P., Vidal, J., & Ponseti, F. (2020). Educación física y universidad: Evaluación de una experiencia docente a través del aprendizaje cooperativo. *Retos*, 39, 90-97. <https://doi.org/10.47197/retos.v0i39.77834>
- Bonnin, P., Alarcón, E., & Colomer, A. (2020). De la escena a las aulas: los artistas y la incorporación de la danza española y el baile flamenco a las enseñanzas generales. *Retos*, 40, 393-403. <https://doi.org/10.47197/retos.v0i40.83262>
- Buchanan, D. and Bryman, A. (2018). *Unconventional Methodology in Organization and Management Research*. Oxford: Oxford University Press (UK).
- Canga, A. (2012) El método de la respuesta física (TPR) como recurso didáctico para el aprendizaje del inglés en educación infantil. *Revista Iberoamericana de Educación* 60 (3), 1-10.
- Co'ar, Z. and Orhan, R. (2019). Teaching kindergarten children English vocabulary by total physical response in physical education courses. *Journal of Physical Education and Sports Management*, 6 (2), 70-76. DOI: 10.15640/jpesm.v6n2a8
- Deci, E. and Ryan, R. (2008). Self-determination theory: A macrotheory of human motivation, development, and health. *Canadian Psychology*, 49 (3), 182-185.
- Díaz, F. and Hernández, G. (2010). *Estrategias docentes para un aprendizaje significativo: una interpretación constructivista*. México: McGraw-Hill.
- DiDomenico, J. (2017) Effective Integration of Music in the Elementary School Classroom. *Inquiry in Education*, 9 (2). 1-18. <https://files.eric.ed.gov/fulltext/EJ1171782.pdf>
- Englishtina, I. (2019). The use of total physical response (TPR) activities for teaching listening to young learners. *Journal of English Language Teaching and Islamic Integration*, 2(1), 113-120. <https://core.ac.uk/download/pdf/228759301.pdf>
- Fernández, E., and Baena, A. (2018). Motivation in Physical Education and Foreign Language Learning in CLIL Teaching: Gender Differences and Implications for Future Studies. *Porta Linguarum*, 30 (1), 207-220. <http://hdl.handle.net/10481/54070>
- García, J., García, J., & Yuste, J. (2015). Educación Física en inglés. Una propuesta para trabajar la higiene postural en Educación Primaria. *Retos*, 22, 70-75. <https://doi.org/10.47197/retos.v0i22.34589>
- Hernando, A., Hortigüela, D., & Pérez, Á. (2017). Percepción de coordinadores de programas bilingües y docentes de Educación Física en inglés en secundaria sobre el proceso de implantación y desarrollo del bilingüismo en la Comunidad de Castilla y León. *Retos*, 33, 63-68. <https://doi.org/10.47197/retos.v0i33.54423>
- Ibrohim, A., Septianti, A., & Sadikin, I. (2018). Students' perception toward teaching English vocabulary through total physical response (TPR) method. *Project Prof. Journal of English Teaching*, 1(2), 145-156
- Khakim, L. and Anwar, C. (2019). Improving students' vocabulary mastery through total physical response learning method. *Advances in Social Science, Education and Humanities Research*, 409(1), 506-512. DOI: <https://doi.org/10.2991/assehr.k.200225.110H>
- King, F. (2018). Music Activities Delivered by Primary School Generalist Teachers in Victoria: Informing Teaching Practice. *Australian Journal of Teacher Education*, 43(5). 48-59. <http://dx.doi.org/10.14221/ajte.2018v43n4.10>
- Kovacikova, E. (2018). Learning Languages through Music, Teaching Music through Languages. *Universal Journal of Educational Research*, 7(8), 1808-1813. <http://www.hrpub.org> DOI: 10.13189/ujer.2019.070819
- Kralova Z., Kovacikova E., Repova V., & Skorvagova E. (2021). Activities in English classes inducing positive / negative emotions. *The Education and science journal*, 23(1). 136-155. <https://doi.org/10.17853/1994-5639-2021-1-136-155>
- Kreutz, J. and Rhodin, N. (2016). The influence of ICT on learners' motivation towards learning English. Thesis. Malmö högskola fakulteten för lärande och samhälle. Suecia. In: <http://www.diva-portal.org/smash/get/diva2:1496463/FULLTEXT01.pdf>
- Lestari, I. and Hardiyanti, N. (2020). Vocabulary Learning Autonomy through Incorporation of English Songs: Indonesian EFL Students' Perspectives. *The Southeast Asian Journal of English Language Studies*, 26 (2), 94-104. <http://doi.org/10.17576/3L-2020-2602-07>
- Mariyam, N. and Musfiroh, T. (2019). Total physical response (TPR) method in improving English vocabulary acquisition of 5-6 years old children. *Tadris: Jurnal Keguruan dan Ilmu Tarbiyah*, 4(2), 257-264. DOI: 10.24042/tadris.v4i2.4071
- Nafkhatul, M. and Taranindya-Zulhi, A. (2017). Enriching vocabulary through total physical response (tpr) for young learners. *Britania Journal of English Teaching*, 1 (2), 1-11.
- Ningsih, N. (2019). The effect of song in teaching English. *Elties Journal*, 1 (1), 1-12. DOI: <https://doi.org/10.24252/elties.v1i1.7413>
- Nuraeni, C. (2019). Promoting vocabulary using Total

- Physical Response (TPR) method on early childhood English language teaching. *Journal Penelitian Humaniora*, 20 (2), 67-79.
- Orbegoso, A. (2016). Intrinsic motivation according to ryan and deci and some recommendations for teachers. *Educare, Revista Científica de Educação*, 2(1) 75-93. DOI: <http://dx.doi.org/10.19141/2447-5432/lumen.v2.n1.p.75-93>
- Pavia, N., Webb, S., & Faez, F. (2019). INCIDENTAL VOCABULARY LEARNING THROUGH LISTENING TO SONGS. *Studies in Second Language Acquisition*, 41 (4), 745- 768
- Purnama, N. Rahayu, N., & Yugafati, R. (2019). Students' Motivation in Learning English. *Professional Journal of English Education*, 2 (4). 539-544.
- Romaniuk, S. (2019). Learning English through songs as one of innovative methods of education. *Ó Áôîââîí³*, 9 (1), 225-229. <https://doi.org/10.35619/iu.v0i9.12>
- Rueda, I., Acosta, B., & Cueva, F. (2020). Las Universidades y sus prácticas de vinculación con la sociedad. *Educ. Soc., Campinas*, 41 (1), 1-20.
- Saehu, A., Sariyati, I., & Syah, M. (2017) Total Physical Response Method for Mastering English Vocabulary. In 2nd International Conference on Sociology Education (ICSE 2017), pages 73-76.
- Sari, D., Gea, E., & Fajrina, D. (2021). Autistic students learning English through Total Physical Response. *Studies in English Language and Education*, 8(1), 34-46. <https://doi.org/10.24815/siele.v8i1.18131>
- Shi, T. (2018). A study of the TPR method in the teaching of English to primary school students. *Theory and Practice in Language Studies*, 8(8), 1087-1093.
- Siregar, F., and Siregar, R. (2020) Students' Motivation in Learning English, *Fitri Rayani & Rahmadiny EEJ*, 8(2), 177-178. <http://jurnal.iain-padangsidimpuan.ac.id/index.php/EEJ/article/view/3239>
- Susanti, R. (2019). The effectiveness of total physical response method in teaching english vocabulary to students with autism at inclusive school. *IOSR Journal of Research & Method in Education*, 9(6), 38-48. DOI: 10.9790/7388-0906053848
- Tobar, A. and Álvarez, O. (2018). *Música como estrategia de enseñanza y comprensión lectora. Tesis de grado*. Universidad de la Costa. En: <https://repositorio.cuc.edu.co/bitstream/handle/11323/2892/40993417-1123622338.pdf?sequence=1&isAllowed=y>
- Ummah, S. (2016). The Implementation of TPR (Total Physical Response) Method in Teaching English for Early Childhood. *Advances in Social Science, Education and Humanities Research*, 58 (1), 421-428. DOI:10.2991/icece-16.2017.74
- Vishnevskaiia, M. and Zhou, Z. (2019). The Impact of Using Music and Songs on Teaching EFL in China by Non-native English Teachers. *Universal Journal of Educational Research*, 7 (8). 1808-1813. DOI: 10.13189/ujer.2019.070819
- Windi, R. (2017). *The effectiveness of Total Physical Response Method in teaching English vocabulary to students with autism at SDLB Negeri 027701 Binjai*. [Unpublished bachelor's thesis]. University of North Sumatra
- Xia, X. (2018). An effective way to memorize new words—lexical chunk. *Theory and Practice in Language Studies*, 8 (11), 1494-1498.
- Yusuf, Y. and Rusdi, L. (2017). Listen, do, repeat, understand, and remember: Teaching English to very young children in Aceh. *Iranian Journal of Language Teaching Research*, 5 (2), 113-132.