EFL teaching through Total Physical Response and Physical Activity on Higher Education students: A systematic review

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ABSTRACT: Total physical response (TPR) aims to develop listening comprehension and verbal communication skills of beginner level of students through physical actions. This paper is a systematic review of the literature on EFL teaching by TPR methodology on higher education students in the area of English teaching, Physical Education, and Physical Activity and Sport. After an exhaustive search, 5 peer-reviewed publications were classified according to frequency and geographical distribution, sample and duration of the programs, research methodologies, data collection instruments used, and main outcomes investigated. The results indicate that the research methodologies used tended to be qualitative, while the variety of samples and duration of interventions was broad. The instruments employed were mainly reflexive diaries with open questions and descriptive survey, as well questionnaires and surveys, and the programs were developed specifically for Spain and Asian countries. In conclusion, the present systematic review highlights that TPR and physical activities can have a positive effect on higher education students EFL learning.

Key words: Professional skills, academic competences, university, physical wellbeing, community learning.
New educational trends are emerging in the field of higher education with the aim to respond vigorously to current social challenges. Some of these recommendations include initiatives that combine higher education with new strategies of English as Foreign Language (EFL), physical health attitudes and social activities among others (Kyungbin & Seohyun, 2018; Ruiz-Montero, 2019). Moreover, this fact opens the possibility for such initiatives to be implemented through active and experiential pedagogical models that can promote student teacher training and improvement of the quality of life from students (Ortega-Martín et al., 2017; Salvador-García et al., 2017).

EFL teaching includes taking into consideration different educational, scholarly and proficiency components (Yang & Yeh, 2021). One of these components is the knowledge of higher education students, which appears to be on a very basic level to have improved due to the esteem of the experience given through several methodologies such as Total Physical Response (TPR) (Wang, 2019). Essentially, small-group interventions in EFL teaching produces the combination of curricular learning in a comprehensive and globalised way, particularly with dynamic techniques that utilize dynamic programs to be close understudies or any gather (Ruiz-Montero & Hooli, 2022). Foreign language instruction has been a challenge for all academic community. How to teach a foreign language in a certain setting is of paramount concern to all specialists in EFL teaching (Larsen-Freeman & Anderson, 2011). In EFL classes, instructors and students utilize a plenty of teaching strategies and learning techniques to encourage the comprehension and understanding of the material. A few of these strategies are supportive; whereas others are motivating, since each educational strategy may reflect diverse results in numerous learning situations (Cortina-Pérez et al., 2022).

Depending on the instructive, proficient and physical prosperity competencies acquired during teaching process, there is a genuine activity setting where the partaking understudies play a decisive part within the improvement of these competencies in EFL instruction (Xue et al., 2019). Another critical variable is the greater inspiration of the university students of English-language programs which creates more viably proficient competencies (Ho et al., 2023).

There are a few teaching strategies within the EFL field like TPR in higher education. This strategy educates around the coordination of discourse and understudy activity. Its basis is instruction and learning through physical activity, using the students’ motor aptitudes as they react to commands as rapidly as possible (Wang Li, 2008). The higher education students reflect on the benefits of this dynamic strategy (Hooli et al., 2023). Moreover, there is a psychological basis which improves the students’ quality of learning because they have to pay attention during shot spans of time, and at the same time burn a lot of physical energy (Cam & Phi, 2018; Itmeizeh & Ibnian, 2022).
Concurring to foreordained criteria for precise systematic review method, the sample raises a number of questions: What methodological approaches have been employed to investigate relationships between EFL teaching and TPR or physical activities on higher education participants in this review? What are the most cited recommendations when planning active methodologies oriented to improve EFL teaching towards higher education students? Therefore, the aim of this study was to explore main characteristics of EFL teaching by TPR or physical activities on higher education students of many studies carried on around the world.

1.1. Research Focus

This work presents a systematic review of the literature focused on higher education EFL courses aimed at achieving benefits associated with the use of physical activity and TPR methodology among students. There is a substantial literature about the beneficial impact of TPR on EFL courses, much of which focused on Primary or Secondary school students (Jing, 2002; Wang, 2008; Wang, 2019). However, these results are not all focused on higher education and consequently do not describe the higher education students’ learning experiences and other particularities of this methodology in depth.

Concerning the conjunction of work on higher education students through TPR methodology and physical activities, no previous studies have presented a review of the general literature focused on EFL courses by TPR and physical activity on higher education students. Therefore, there is a very close filed and focused specifically on the field of EFL courses on higher education through dynamic activities. Indeed, the authors of this review suggest the need for future specific studies. This study also highlights the gap in measuring TPR and physical activity effects on EFL courses of higher education students. For example, the paucity of appropriate instruments to assess its effects, and the differing influences of EFL courses through TPR or physical activities on higher education students.

The present review is thus structured around the following descriptive categories: frequency with which EFL courses through TPR and physical activities articles on higher education students are published, geographical distribution of papers, sample and duration of the programs, research methodologies employed, data collection instruments used, and the main outcomes investigated. Knowing the main advantages and disadvantages involved in these dimensions before starting a program can be critical for EFL success.

2. Methods

Due to the fact that there have been some critiques of previous reviews that have not adopted a transparent and reproducible search protocol (Cooper, 2017), we were committed to following a systematic and explicit method (Gough et al., 2012). The present literature review used the integrative review method, including the following steps: using the process of problem identification, articulating search terms, formulating inclusion criteria, developing the literature search, screening the articles based on the inclusion criteria, analyzing the data, and finally synthesizing and reporting the findings.
2.1. Search Strategies

After identifying the problem, two main search strategies were used. The first step consisted of a search in two of the most respected databases in the field of social sciences and education: Clarivate-Journal Citation Reports and Scopus-Elsevier. From these, we considered all peer-reviewed publications from the 21st century, that is, between 2001 and the May of 2023. Given the variety of the terminology used in the literature, we sought to identify multiple terms to capture the intersection of ideas for our review. All of the publications therefore had to contain at least one term related to the following concepts: ‘English teaching (English teaching, English as Foreign Language); ‘physical activity’ (physical activity, total physical response); ‘higher education’ (university, higher education); in English and Spanish idiom. The search strings consisted of a combination of the terms for each concept, which were scanned for in titles, keywords, and abstracts.

Finally, as a second step, the reference lists of all retrieved articles were reviewed to identify the possible existence of other interesting publications on the subject of physical activity in the field of English teaching and higher education with higher education students. The reason for choosing articles from the last 23 years was to highlight selected existing studies and trends from the current century.

2.2. Inclusion criteria

The selection of the literature to be reviewed was based on four general criteria: quality, relevance, educational level, and topicality. Papers that did not meet these criteria were excluded from further consideration. Regarding quality and relevance, the first filter was the academic nature of the database where the articles were found. The format of each item also had to meet the standardized scientific criteria by being empirical, narrative, or reasoned, with well-defined objectives, methodologies, and designs containing valid and recognized studies. Regarding educational level and topicality, the search was directed solely at English teaching courses through physical activities and TPR methodology in higher education level.

The results of the search for the selected articles should also respond to the type of research and/or application carried out through the English teaching experience, specifically in ELF in a field related to the subjects of physical activity and TPR, excluding Primary and Secondary school level and children or people in different levels than higher education. A team of three researchers applied the inclusion criteria. To ensure reliability in the application of the criteria, this work occurred after a one-day moderation. For the most part, the decision to include articles was relatively straightforward, because there was clear evidence of whether the papers were aligned (or not) with the review’s purpose.

3. Results

The initial search within the two databases yielded 10,542 relevant articles. After reviewing title, keyword, and abstract information, the sample of potential articles was reduced to 10,202. No other interesting publications were found among their reference lists. There were 2 repeated publications, 53 records showed no information because they were proceedings
of Congress or Meeting with empty contents, and 284 records were excluded because they were abstracts that did not provide enough data or document, leaving 339 articles for review. Finally, 10,196 articles were not selected due to the absence of inclusion criteria. Reason 1 was that 'total physical response' or 'physical activity' did not appear to be related to other concepts of the search strategies (n= 73). Similarly, a total of 10,123 records showed no relation between all concepts included in the search strategies of this study. The final studies included in the systematic review were firstly 6, and finally one of them was an article’s comment in a special issue. Each of the papers in the final sample was classified according to the following descriptive categories: frequency and geographical distribution, sample and duration of the program, research methodology, data collection instruments used, and main outcomes investigated. The PRISMA 2020 literature search methodology is graphically represented in Figure 1.

**Figure 1. Literature search methodology using the PRISMA 2020 framework**
3.1. Frequency of Impact Publications and Geographical Distribution

In regard to the publication dates, the results do not show clear patterns in terms of frequency. The most prolific years were 2012 and 2022 (two manuscripts of the sample each year) followed by 2023 with one publication each. More than half (60%) of the whole sample was published in the last three years. The rest of years were not represented in the present review (from 2000 to current day). Despite the variation in the number of articles per year, publication appears to remain noticeably constant after 2022, a year that seems to be pivotal for research on the subject.

Another aspect that should be noted is the geographical distribution of the programs, because this will reveal the world’s leading centers for English teaching by EFL involving physical activity and TPR among higher education students. Two articles were developed in the Spain. Apart from this, the rest of the sample does not show more relevant patterns with China, Thailand and Jordan.

3.2. Sample and Duration of the EFL Courses

English teaching by EFL may vary widely depending on features such as aim, students’ profile, or duration. We may note a disparity in both the number of students receiving EFL through physical activity and TPR. In terms of the former, this number of individuals ranges from 14 in the works of Corral-Robles et al. (2022) and Hooli et al. (2022) to 76 in Wang’s study (2012). These numbers include students from a range of degree programs, such as Physical Education and Sport, EFL teacher education students or teaching education students. Physical activity and TPR can be developed embedded within a university subject or program, both related to EFL teaching. However, it can also be proposed as an extracurricular activity or collaborative activities. When it is part of a university curricular program, one study was implemented through internationalization courses and the rest of manuscripts by academic courses.

In terms of the length of the programs and sessions involved in the investigations, it is worth noting the complexity of classification and analysis due to the varying information provided in each text. All papers present studies or experiences that are part of short programs. Among those articles that detail the time of course given, the most repeated was several weeks as Samawathdana & Wattanaburanan (2012) with 10 weeks, Corral-Robles et al. (2022) and Holi et al. (2023) with four weeks, or Wang (2012) with 6 lessons. The largest EFL intervention through TPR was for a full summer (Itmeizeh & Ibnian, 2022).

3.3. Research Methodology

Several differences appeared among the research methodologies. For example, four of the publications employed a qualitative method, whereas only one publication was investigated using a mixed approach.

3.4. Data Collection Instruments

The instruments used to gather the data are another relevant aspect. Two articles employed reflexive diaries with open questions about the weekly experiences of students (Corral-Robles et al., 2022; Hooli et al., 2023) while the Itmeizeh & Ibnian’s study (2022) only
used open questions. A descriptive survey was used by Wang (2012) to obtain percentages of students’ answers. Only one study combined questionnaires and surveys (Samawathdana & Wattanaburanan, 2012).

### 3.5. Main Outcomes Investigated

The main objectives addressed by researchers can be principally divided into two areas of interest: a) professional and physical wellbeing competences (Corral-Robles et al., 2022; Hooli et al., 2023; Samawathdana & Wattanaburanan, 2012), and b) academic competences (Corral-Robles et al., 2022; Hooli et al., 2023; Itmeizeh & Ibnian, 2022; Wang, 2012), both, on effects of TPR and physical activity on the higher education students on the field of EFL teaching (and Physical Education. A wide range of aspects were considered, for example Itmeizeh & Ibnian (2022) concentrated on the increase of students’ positive perceptions and motivation by psychological and pedagogical implements of communicative language teaching; Wang (2012) analyzed the development of English oral competences on Physical Education and Sports’ students. Corral-Robles et al. (2022) and Hooli et al. (2023) provided an overview of Service-Learning programs’ impact of EFL Teacher Education students and their acquisition of professional, linguistic, pedagogical or intercultural competencies by TPR and physical activities. Finally, it is noteworthy that one of the articles examines the particular effects of teaching by English language courses with main focus on environment for health improvement and Physical Education (Samawathdana & Wattanaburanan, 2012).

### Table 1. Characteristics of the papers included in the review.

<table>
<thead>
<tr>
<th>Source</th>
<th>Type of study/ data collection instruments</th>
<th>Duration and/or Frequency</th>
<th>Number of participant students</th>
<th>Profile of students</th>
<th>Geographical distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corral-Robles et al. (2022)</td>
<td>Qualitative: reflexive diaries by open questionnaires</td>
<td>4 weeks with two lessons each</td>
<td>14</td>
<td>EFL Teacher Education Students</td>
<td>Spain</td>
</tr>
<tr>
<td>Hooli et al. (2023)</td>
<td>Qualitative: reflexive diaries by open questionnaires</td>
<td>4 weeks with two lessons each</td>
<td>14</td>
<td>EFL Teacher Education Students</td>
<td>Spain</td>
</tr>
<tr>
<td>Itmeizeh &amp; Ibnian (2022)</td>
<td>Qualitative: descriptive-analytical approach by open questionnaires</td>
<td>6 lessons</td>
<td>46</td>
<td>EFL Teacher Education Students</td>
<td>Jordan</td>
</tr>
<tr>
<td>Samawathdana &amp; Wattanaburanan (2012)</td>
<td>Mixed: open questionnaires and surveys</td>
<td>10 weeks</td>
<td>-</td>
<td>Health and Physical Education</td>
<td>Thailand</td>
</tr>
<tr>
<td>Wang (2012)</td>
<td>Qualitative: descriptive-analytical approach by open questionnaires</td>
<td>3-month period</td>
<td>76</td>
<td>Physical Education and Sports</td>
<td>China</td>
</tr>
</tbody>
</table>
4. Discussion

In accordance to the data obtained in this systematic review, EFL teaching by TPR and physical activities in higher education students has been used on a number of occasions for alternative educational method promotion and to encourage student’s motivation and participation. The experiences that constitute the sample enabled to higher education students to assimilate the contents more effectively and increase their motivation to learn EFL. However, there are many alternatives through which this area of study might be improved by future researchers and may even provide better EFL teaching programs addressing not only active and physical methodologies as TPR.

The present literature review shows that the frequency which EFL or English teaching articles on higher education students have been published does not follow a gradual development, published most of them in the last three years. The programs described may vary widely depending on features such as study methodology, duration, number of participants, location and profile of students. There is diversity in terms of program length with a 1-3 months being most frequent and between 8 to 24 hours of TPR and physical activities intervention, which is a result consistent with the studies made by Corral-Robles et al. (2022), Nuraeni (2019) and Zhen (2011). This fact might reinforce future use of games, physical activity and dynamic activities in EFL teaching because Fernández-Barrionuevo et al. (2022) associates the high motivation and attention of higher education students’ courses with future physical activities and movement during lessons.

Regarding to the research methodology employed in the manuscripts included in this systematic review, there is a clear predisposition towards qualitative methods. This methodology responds to the need for collecting important data from the higher education students to analyse specific comments about motivation and better English language acquisition (Greipl et al., 2021). And the fact is that the use of games and physical activities facilitates learning by fostering both the teachers’ and learners’ cognitive, affective and emotional engagement (Plass et al., 2015).

The main issues investigated in the manuscripts could be classified into two categories: those relating to professional and physical wellbeing competences, and academic competences. Most of the studies reported positive results in learning outcomes related to the academic competences of students, as well as the acquisition of professional skills. The benefits to higher education students are well-documented: communicative language learning (Noori, 2018), increase of motivation (Cheng, 2015), self-confidence and long-term memory (Alhomaidan & Alshammari, 2016), or increased perceptions of professional cooperation (Hooli et al., 2023) increase in higher education students. Moreover, an EFL teaching course through TPR managed by Asher et al. (1968) showed an improvement in mutual relationship formation and positive experiences between students included. Thus, the results clearly show that TPR and physical activities may be an optimal way to promote social cohesion (Salvador-García et al., 2020), increasing the students’ health care (Ruiz-Montero et al., 2020), academical (Pacheco et al., 2022), psycholinguistic (Ho et al., 2023) and professional skills (Bahtiar, 2017).

This study shows that the Spain is a country with a long tradition of using TPR in EFL teaching and proven experience on higher education students. Indeed, the term TPR was first used in the United States by Asher in 1968. This method was incorporated into the EFL courses of children with the aim to facilitate a second language learning. However, Eng-
lish-speaking countries not have this problem about EFL teaching but they can employ TPR with other languages. Two manuscripts of this systematic review are from Spain (Europe) and the rest from Asian countries. Many Latin and Asian countries often use alternative method to improve English as Second Language because of the high demand of English level in sectors as academic, professional or tourism sectors among others (Chen, 2022; Criollo-C. et al., 2022; Hooli et al., 2023; Zečević & Biševac, 2022). TPR and physical activities are motivating methods to improve the EFL learning on higher education students and at the same time, it helps to improve the health and increasing the motivation of students (Fernández-Barrionuevo et al., 2021). According to Spanish higher education rules, students have to obtain B1/B2 English level recognised by the Common European Framework of Reference for Languages to finish any Bachelor Degree. Thus, the use of TPR and physical activities as methodologies in higher education EFL teaching on higher education may be a useful tool towards obtaining the B2 certificate.

The appearance of alternative methodologies on EFL teaching could cause that higher education students to show interest and motivation in studying foreign languages. The result may lead to a progressive increase of higher education students participating in TPR methodology and physical activities. Therefore, higher numbers of bachelor degree courses could also be offered to students with these novelty methodologies. Another important aspect is the wide variety of differentiating aspects among TPR and physical activities in EFL teaching in which are implemented (Itmeizeh & Ibnian, 2022; Wang, 2017) including the number of participants and duration of the courses and lessons implemented. It can be concluded that TPR is a pedagogical method that can be adapted which caters to the characteristics and needs of higher education students, such as by focusing on second language acquisition, improvement of professional and academic skills or, better physical wellbeing competence.

In conclusion, consistent with Corral-Robles et al. (2022), the main results of the current systematic review suggest that TPR has a positive effect on higher education students’ outcomes, the gold standard when measuring pedagogical practices. However, we must not forget that this methodology provides a use that can be extremely motivating for the students and, therefore, TPR can have a positive effect on EFL teaching among teachers who use it. This is an encouraging result for educators considering implementing a TPR methodology in their courses or at their universities. TPR and physical activities focused on areas such as EFL teaching and learning, Physical Education or Sport Science can be a particularly useful step in promoting academic, professional, social and physical wellbeing competences as well as working with classmates and teachers to promote social cohesion and improve common learning. Few studies have showed a specific literature focused on EFL courses by TPR on higher education students and deeper research is necessary. Further research is still needed to evaluate the outcomes of TPR methodology on facilitating teachers to create optimal learning experiences and the pedagogical sound EFL teaching programs. Finally, we should mention the limitations of the current study, because it was of upmost difficulty to find manuscripts with similar inclusion criteria to this systematic review. Thus, results could be problematic due to the possibility that further unpublished work exists that could potentially affect the overview. Moreover, it may be a worthwhile endeavour to include more contents to the search strategies to enrich results.
Funding: This research was carried out within the R+D+i project (2019) “University Service-Learning in Physical Activity and Sport. Opportunity for social inclusion”, with reference PID2019-105916RB100. This study was also included in the Fido 2022 (project no. 22-172), Unit of the Quality, Teaching Innovation and Prospective Unit, as well as in the 2022 call for Equality, Social Inclusion and Promotion of Research of the vice rector’s office of Equality, Inclusion and Sustainability with no. INV-IGU185-2022, which were both calls from the University of Granada, Spain. Finally, this manuscript is part of the Eeva-Maria Hooli’s Doctoral Thesis.

Conflicts of Interest: The authors declare no conflict of interest. Eeva-Maria Hooli and José Luis Ortega-Martín are from the Department of Didactics of Language and Literature, Faculty of Education Science, University of Granada, Spain. Pedro Jesús Ruiz-Montero is from the Department of Physical Education and Sport, Faculty of Sport Sciences, University of Granada, Spain.

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