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Supporting English language learning for students with attention deficit hyperactivity disorder through total physical response and multiple intelligences theory

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1 Introduction

Globally, including in Turkey, foreign language education—particularly English—begins in early childhood. However, this process varies significantly depending on learners' individual needs. Among these are students with special educational needs, including those with ADHD. Considering the studies conducted in the English Language Teaching (ELT) field, it can be said that there have been many approaches and methods applied so far (Richards and Rodgers, 2014). Among them, the most suitable one for students with ADHD might be the Total Physical Response (TPR), which was developed by Dr. James J. Asher in the late 1960s. This method of teaching involves responding to verbal commands with physical movement. It reduces anxiety and makes learning more engaging, particularly in the early stages. In contrast, Gardner's Multiple Intelligences Theory proposes that intelligence is multi-dimensional and can be activated in diverse settings including school, home, and society at large (Gardner, 2000).

Shapiro (2010)/noted that although many children with ADHD have above-average intelligence, they often underperform due to challenges in focus and organization. This study addresses this gap by proposing a dual-method strategy that may maximize language learning potential, boost academic success, and improve social engagement. By combining physical, interactive strategies with customized activities that cater to students' dominant intelligences, the study aims to offer a new approach in language education for students with ADHD.

To effectively teach English to primary-level students with ADHD—who often face challenges with concentration, focus, and hyperactivity—integrating Total Physical Response (TPR) with Multiple Intelligences Theory can pave the way for more successful learning outcomes. As Ivask (2015a,b) emphasizes, understanding which methods, approaches, and activities are effective for learners with ADHD is crucial for optimizing teaching practices. Such a combination aims to achieve several specific objectives: increasing classroom engagement through movement-based TPR activities; enhancing long-term retention by aligning instruction with students' dominant intelligences; boosting learners' confidence in acquiring a new language; reducing prejudices against English and promoting its use in daily and social contexts; and equipping teachers with practical, adaptable strategies to support ADHD learners more effectively.

As emphasized by Martínez et al. (2023), it can be said that different strategies should be used to motivate students with ADHD in order for them to experience the English teaching and learning process effectively. In general, as with all students, the motivation of students with ADHD can increase when they feel successful. Similarly, Pérez-Cabello et al. (2024) point out that ADHD should not be seen as a disease, but rather as an individual characteristic that some students have. At this point, TPR may be one of the best methods to increase the motivation of students with ADHD. When using TPR, students play an active role in the learning process. Therefore, playing an active role in the learning process can be an important factor in reducing students' distractions. Furthermore, students who take an active role in the learning process may feel like they are contributing to the process, which can be considered a significant factor in increasing their motivation. Furthermore, as Bozyigit et al. (2014) point out, active learning encourages learners to engage in the learning process while simultaneously applying their intellectual abilities, interpreting information, and making informed learning decisions. Considering these factors, the integrated use of TPR and the Theory of Multiple Intelligences might undoubtedly maximize the learning process of students with ADHD. Furthermore, the Theory of Multiple Intelligences is beneficial not only for students with ADHD in the classroom, but also for students without ADHD who experience short-term fluctuations in attention spans. This is because even children without ADHD may not be able to fully concentrate during class. Integrating the two methods, therefore, can benefit all students in the classroom.

Recent research also supports the integration of kinesthetic and personalized learning strategies for students with attention difficulties. According to Zentall (2006), movement and variability in tasks can improve attention and memory in students with ADHD. Similarly, Armstrong (2009) emphasizes the power of differentiated instruction rooted in Multiple Intelligences Theory to support diverse learners in inclusive classrooms. When implemented together, TPR and MI strategies can offer a balanced instructional approach—combining structure and flexibility— that caters to both cognitive and behavioral needs of ADHD learners in the English language classroom.

The integration of TPR and MI Theory not only benefits students with ADHD cognitively and behaviorally but also aligns with inclusive education principles that emphasize differentiation and accessibility. As Tomlinson (2014) asserts, differentiated instruction is essential in addressing the unique learning profiles of students with special educational needs, including those with attention disorders. TPR activities promote active participation, while MI- based tasks allow students to engage with content in ways that resonate with their strengths—be it musical, spatial, bodily-kinesthetic, or interpersonal. Moreover, Tannock (2007) highlights that traditional language teaching methods often fail to meet the neurodevelopmental needs of ADHD learners, leading to frustration and low achievement. By shifting the pedagogical focus from rigid instruction to dynamic, responsive teaching strategies, educators can foster a more inclusive and effective language learning environment. This dual-method approach, therefore, not only enhances academic outcomes but also supports students' emotional and social development, which is often compromised in conventional classrooms.

2 Context

The selected lesson aligns with the national curriculum's Unit 4 theme: *Weather and Emotions*.

The total duration was 80 min, divided into two 40-min sessions to maintain attention and avoid cognitive overload, particularly for learners with ADHD. The lesson is designed for 6th graders in elementary school, whose proficiency level is considered elementary (A1–A2 on the CEFR scale).

Given the students' developmental stage and learning needs, the instructional approach integrates Total Physical Response (TPR) and Multiple Intelligences (MI) Theory. TPR supports kinesthetic engagement by linking language input to physical actions, which helps learners with ADHD stay focused, release energy productively, and build stronger memory associations. Meanwhile, MI Theory ensures that varied learning styles are addressed through a combination of linguistic, bodily-kinesthetic, musical, and interpersonal activities. This combination increases the likelihood of active participation and deeper retention of vocabulary and structures.

The lesson was also contextualized within real-life communicative situations so that students could see the immediate usefulness of describing weather and expressing emotions in everyday interactions. Visual materials, gestures, music, and peer collaboration were embedded throughout the session to create a multi-sensory learning environment.

3 Learning outcomes

Aligned with the Ministry' of National Education's curriculum objective, the targeted learning outcomes are as follows:

- Students will be able to describe basic weather conditions.
- Students will be able to express how they feel in different weather scenarios using simple sentence structures.

4 Sample lesson implementation phases

1. Warm-up (10 min)

The teacher greets the students and introduces visual stimuli—a series of pictures depicting various weather conditions and activities. Students infer the appropriateness of activities based on the weather (e.g., "Can he play football in this weather?"). This leads to an open-class discussion where students take turns expressing their opinions.

Next, the teacher introduces a chant related to the weather and emotions. All students participate collectively in chanting, using rhythm, repetition, and movement.

Applied intelligences:

- Verbal-linguistic
- Visual-spatial
- Musical-rhythmic
- Interpersonal
- Bodily-kinesthetic

2. Presentation phase (20 min)

The teacher uses a contextual cartoon that includes both textual and visual cues to present the target language. This multimodal material supports comprehension by appealing to both visual and linguistic intelligences.

Next, the teacher plays three short songs, each related to a different type of weather and its emotional effects. While listening, students mimic the weather conditions using physical gestures (e.g., fluttering fingers for "rainy").

Applied intelligences:

- Visual-spatial
- Verbal-linguistic
- Musical
- Bodily-kinesthetic

3. Practice activities (25 min)

Multiple activities reinforce the target structures:

- *Activity 1:* students complete a fill-in-the-blank worksheet, matching weather images to expressions such as "It is windy."
- *Activity 2:* students mime a weather condition and its associated emotion using gestures. For example, one student mimes fog and anxiety, while classmates respond (e.g., "It is foggy. He feels anxious.").
- *Activity 3:* a listening activity follows an audio text. Students complete a true/false worksheet based on their comprehension.

Listening text transcript (excerpt):

"Today is Saturday and it's rainy. I really don't like rainy weather because it always makes me feel sleepy, but my sister loves it…"

Applied intelligences:

- Visual-spatial
- Linguistic
- Bodily-kinesthetic

Production phase (20 min)

Each student receives a unique 7-day weather forecast chart. Working in pairs, students take turns interviewing and responding using guided questions (e.g., "How do you feel on Monday when it is snowing?"). After completing the dialogue, they switch roles.

Applied intelligences:

- Visual-spatial
- Verbal-linguistic
- Interpersonal
- Bodily-kinesthetic

Assessment tools

Formative assessment occurs through teacher observation of students' engagement in the/TPR-based tasks. Summative assessment includes worksheet completion (fill-in-the-blank, true/false)

- Oral performance during the/interviews
- Listening comprehension evaluation

Listening transcript (excerpt):

"It's Monday and it's snowing outside. I enjoy snowy days… My sister loves to play in the snow like me. She can't wait to build a snowman."

Pedagogical justification

This procedure addresses the cognitive and behavioral needs of students with ADHD. It incorporates Total Physical Response (TPR), multimodal inputs (music, visuals, and gestures), and student-centered communication tasks. Research has shown that such approaches increase motivation, engagement, and retention among ADHD learners (Shapiro, 2010; Ivask, 2015a,b; Gardner, 2000).

5 Conclusion

Such a model lesson design integrates Total Physical Response and Multiple Intelligences Theory to address the unique learning profiles of students with ADHD. By embedding language in physical and emotional contexts, students learn more effectively and with greater enthusiasm. Activities grounded in movement, music, and peer interaction help/students stay focused and actively involved in the less

Moreover, the use of multimodal materials and differentiated instruction fosters inclusive learning environments where ADHD students feel empowered. As Gardner (2000) emphasizes, catering to diverse intelligences enhances students' confidence and participation. Similarly, TPR helps reduce cognitive overload by translating language into action (Asher, 1969), which proves especially beneficial for learners with attention challenges.

Finally, this approach contributes to a more equitable English language teaching framework in Türkiye. It equips educators with practical, research-backed strategies to support neurodiverse learners. When implemented systematically, such models can support national efforts toward inclusive education and holistic student development (UNESCO, 2017; Şıvkın et al., 2020). In that sense, future studies can further explore the long-term academic and socio-emotional benefits of this combined methodology.

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References

Armstrong, T. (2009). *Multiple Intelligences in the Classroom*, 3rd Edn. Alexandria, VA: ASCD.

Asher, J. J. (1969). The total physical response approach to second language learning. *Mod. Lang. J.* 53, 3–17. doi: 10.1111/j.1540-4781.1969.tb04552.x

Bozyigit, N., Onan, T. S., Özçinar, A., and Erdem, A. (2014). An in-class project model: active learning and effective participation. *J. Educ. Future* 6, 15–24.

Gardner, H. (2000). *Intelligence Reframed: Multiple Intelligences for the 21st Century*. New York, NY: Basic Books.

Ivask, A. (2015a). Inclusive classroom practices for students with ADHD. *J. Educ. Spl. Educ.* 2, 18–26.

Ivask, M. (2015b). *Methods and approaches for teaching children with ADHD in foreign language classrooms*. Master's thesis, University of Tartu. Tartu University Repository. Available online at: https://dspace.ut.ee/handle/10062/47147 (Accessed May 12, 2024).

Martínez, K. S. C., Rojas, N. R. O., and Viera, R. T. (2023). Attention deficit hyperactivity disorder (ADHD) in second language learning. *Polo del Conoc.* 8, 1874–1891.

Pérez-Cabello, A. M., Gil-Pérez, M., and Oliva-Pérez, F. J. (2024). Teaching English to students with attention deficit hyperactivity disorder (ADHD). *Educ. Knowledge Soc.* 25:e31235. doi: 10.14201/eks.31235

Richards, J. C., and Rodgers, T. S. (2014). *Approaches and Methods in Language Teaching*. Cambridge, UK: Cambridge University Press. doi: 10.1017/9781009024532

Shapiro, E. S. (2010). *Academic Skills Problems: Direct Assessment and Intervention*, 4th Edn. New York, NY: The Guilford Press.

Şıvkın, S., Aksoy, V. C., and Erdoğan, D. G. (2020). LGS 'de sorulan PISA tarzı matematik sorularını doğru cevaplama ile okuduğunu anlama arasındaki ilişkinin öğretmen görüşlerine göre değerlendirilmesi. *Sakarya Üniversitesi Eğitim Fakültesi Dergisi* 20, 148–159.

Tannock, R. (2007). ADHD and education: foundations, characteristics, methods, and collaboration. *J. Clin. Child Adolesc. Psychol.* 36, 295–307.

Tomlinson, C. A. (2014). *The Differentiated Classroom: Responding to the Needs of All Learners*, 2nd Edn. Alexandria, VA: ASCD.

UNESCO (2017). *A Guide for Ensuring Inclusion and Equity in Education*. Paris, France: United Nations Educational, Scientific and Cultural Organization.

Zentall, S. S. (2006). ADHD and education: foundations, characteristics, methods, and collaboration. *Interv. Sch. Clin.* 41, 138–147. doi: 10.1177/10534512060410030201