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Do English Language Pre-Service Teachers Feel Ready to Teach Students with ADHD? Voices from Japan, Poland, Turkey, and Ukraine

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Abstract

Inattention and hyperactivity/impulsivity that feature Attention-Deficit/Hyperactivity Disorder (ADHD) may be challenging in the classroom setting. However, little is known about language teachers' self-efficacy and the approaches they would employ to deal with context-specific ADHD-like behaviours. Therefore, this mixed-method study used the vignette methodology to investigate the self-reported efficacy and teaching approaches of 62 pre-service English language teachers from Japan, Poland, Turkey, and Ukraine in managing ADHD-like behaviours in six hypothetical classroom scenarios. By comparing diverse educational and cultural contexts, the study aimed to identify convergences and divergences in coping with these behaviours to promote evidence-based approaches in inclusive language teaching. Data were gathered using an online questionnaire with both open- and closed-ended questions on a Likert-type scale. The findings indicate that participants feel moderately confident in managing ADHD-like behaviours; however, some statistically significant country-related differences were observed. A number of similar teaching approaches were identified across the sample, but prominent country-specific differences in approaching specific ADHD-like behaviours were present. The approaches used by participants align with evidence-based recommendations for teaching students with ADHD to some extent. The discussed implications of the study inform pre-service teachers' education and call for approaches that are more universal in design and language-skill-development-oriented.

Keywords: ADHD; EFL; teacher self-efficacy; teaching approaches; pre-service teachers; teacher education

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1. Introduction

Attention-Deficit/Hyperactivity Disorder (ADHD) is a neurobiological disorder (APA, 2013) or specific learning difficulty (American Psychological Association, 2022; Kormos, 2017) that has two sets of manifestations—inattention and hyperactivity/impulsivity. Inattention is characterised by limited attention to details, difficulty maintaining focus for extended periods or following instructions, poor organisational strategies, forgetfulness, and being easily distracted by external stimuli. Hyperactivity leads to frequent hand and leg movement, walking or running, and fidgeting, whereas impulsivity causes lower self-control, impatience, extensive talking, and unintentional destruction and disturbing others (APA, 2013).

Teaching students with ADHD presents unique classroom challenges because of the disobedience and intolerance (Barkley, 2006) that students with ADHD are likely to display. Moreover, considering that ADHD is a frequent condition among school children, with a prevalence between 5.6% and 7.6% in children aged 3 to 18 years (Salari et al., 2023), working with children and teenagers who have this condition may affect teachers' self-efficacy (TSE). In this regard, it is worth bearing in mind "cultural variation in attitudes toward or interpretations of children's behaviors" (APA, 2013, p. 62).

Research on teachers who instruct learners with characteristics that affect learning, such as ADHD, should also be conducted, with hopes that this will lead to the creation of a global educational environment in which such learners can receive equitable education in line with Sustainable Development Goal 4—ensuring inclusive, equitable, and quality education and the promotion of lifelong learning opportunities for all (United Nations, 2025). ADHD is frequently investigated in education, medicine, and psychology; however, research evidence remains scarce in the areas of additional language teaching and learning, as well as language-teacher-related studies, particularly in the context of challenging classroom situations. To address this research gap, the present study aimed to investigate the self-perceived efficacy of 62 pre-service English language teachers from four different countries—Japan, Poland, Turkey, and Ukraine. The findings of this study are unique since the cultural aspects of ADHD have not been, to our knowledge, investigated in the language classroom setting. The findings have significant pedagogical implications for language teacher education in different cultural settings regarding inclusive classroom strategies.

2. Literature Review

2.1. ADHD in Language Learning

Attention-Deficit/Hyperactivity Disorder (ADHD) may affect second language (L2) acquisition in many ways due to deficits in the central executive working memory (e.g., Karalunas et al., 2017; Kofler et al., 2019; Kofler et al., 2020). Linguistic functioning in individuals with ADHD may be impacted (Bellani et al., 2011). This may include L2 reading comprehension and written expression, especially at the proficient level when more complex mental activities and strategies need to be employed (Miller & Keenan, 2011; Kormos, 2017). Similarly, individuals with ADHD may struggle with coherence and relevance in spoken and written expression (Kałdonek-Crnjaković, 2018). L2 pragmatic skills may also be affected since studies found children with ADHD had poorer L1 pragmatic language skills than their peers without ADHD (e.g., Bishop & Baird, 2001; Staikova et al., 2013). In this regard, it is worth bearing in mind that individuals with ADHD may misinterpret emotions (Cadesky et al., 2000), and their reactions may be impulsive, which may be related to frequent emotional dysregulation (Shaw et al., 2014; Soler-Gutiérrez et al., 2023), mental difficulties (Pisula et al., 2024), and lower self-esteem (Harpin et al., 2016; Pedersen et al., 2024).

Because of difficulty in verbal material processing (e.g., Cain & Bignell, 2014), individuals with ADHD may find L2 listening comprehension challenging since performing listening tasks requires the engagement of various linguistic aspects, including sounds, grammar, lexis, and discourse structure, as well as context, interlocutors, and the purpose of communication (Goh, 2000). Moreover, the weaker capacity for information storing from different stimuli (Alloway et al., 2010; Martinussen & Tannock, 2006) may affect L2 grammar and vocabulary learning.

Overall achievement of primary school children who displayed inattention in language learning was found to be lower compared to their classmates without the condition (Ferrari & Palladino, 2007). However, this was not found among university students with ADHD. Sparks et al. (2004, 2005) reported that university students with ADHD achieved high scores in foreign language classes. Their performance in memorisation, grammatical structure analysis, and reading comprehension tasks was comparable to that of high achievers in the cohort. However, they were found to make more spelling mistakes. It was therefore concluded that language learners with ADHD have a diverse cognitive and linguistic profile (Sparks et al., 2008).

Such a profile of ADHD learners was also observed in other studies. The participants in Błaszczak & Kałdonek-Crnjaković's (2025) study positioned themselves as autonomous, engaged, motivated, and passionate language learners. This position helped them develop high fluency with advanced social and communication skills in any language. However, they admitted that their language learning was full of transient and chaotic moments, resulting in fluctuation in engagement and motivation. Similarly, the multilingual adult participants with ADHD in the study by Köder et al. (2024a) reported various effects of the experienced code-switching, hyperfocus, impulsivity, and memory and pragmatic difficulties. For example, hyperfocus, or excessive attention, may help the individual with ADHD make faster progress in language learning; on the other hand, it may result in fatigue and neglecting learning a language (Köder et al., 2024a, p. 4).

In the other study, Köder et al. (2024b) found that multilingual adult individuals with ADHD had more pragmatic difficulties than the participants without ADHD; interestingly, however, these difficulties were lower in L2 but only in the context of hyperactivity and impulsivity symptoms. Similarly, Azaiez et al. (2023) reported different effects of ADHD in L1 (Finnish) and L2 (English) for the P3a component, that is, a cognitive neuromarker of the attentional processes. A larger P3a response was observed in the participants with inattention symptoms than in the control group, but only for L1 processing. This might be because sensitivity to L2 phonology was reduced when attentional processes were shifted to the meaning processes.

Teacher-related research has shown the effect of ADHD on all L2 language skills. English language teachers reported an equal effect of inattention and hyperactivity/impulsivity manifestations on listening, reading, and writing skill development, whereas a significant difference was found in the effect of the hyperactivity/impulsivity on speaking, grammar, and vocabulary (Kałdonek-Crnjaković, 2022). In contrast, in the other study by Kałdonek-Crnjaković (2024), speaking was more affected by hyperactivity/impulsivity than by inattention symptoms. Interestingly, however, the reported intensity of the ADHD manifestations differed depending on the educational setting—the highest was secondary school (students ages 15–19). This finding can be explained by a higher curriculum demand and less friendly ADHD teaching approaches used for older learners.

2.2. Teaching Strategies for Students with ADHD in the Language Classroom

To provide effective language instruction to students with ADHD, it is paramount that language teachers understand the sources of the students' behaviour (Kałdonek-Crnjaković, 2020), the nature of learning difficulties (Kormos & Kontra, 2008), and the

specific effects of ADHD on language learning and use (Angelovska & Kałdonek-Crnjaković, 2024). It is important to recognise students' potential (Nijakowska, 2010) by considering their strengths and weaknesses in language learning and use (Kormos & Smith, 2023). Teaching approaches and accommodations need to address the linguistic and behavioural needs of their learners (Kałdonek-Crnjaković, 2020). These include the following:

- Being patient and positive with a non-judgmental attitude to build a positive classroom atmosphere (Babocká, 2015; Błaszczak & Kałdonek-Crnjaković, 2025);
- Showing willingness to engage in working with students with ADHD (Pfiffner et al., 2006);
- Setting specific learning targets and task performance criteria (Kałdonek-Crnjaković, 2020);
- Providing frequent constructive feedback by highlighting the strengths of the produced work (Kałdonek-Crnjaković, 2020);
- Using motivational teaching strategies (Kormos et al., 2009);
- Employing social–emotional learning (SEL; Pentón Herrera & Martinez-Alba, 2021) to teach students to recognise their emotions and manage them appropriately in challenging classroom situations;
- Employing antecedent, consequent-based classroom, and self-regulatory strategies, including making a choice, active and regular teaching of classroom rules, verbal reprimand, removal from the classroom, self-reinforcement, and self-evaluation (DuPaul & Weyandt, 2006);
- Allowing the student to leave the classroom to regulate their behaviour (Kałdonek-Crnjaković, 2020);
- Opting for short and dynamic classroom activities that last no longer than 10 min (Smith, 2015);
- Minimising stimuli in the classroom space, for example, by employing a simple design and layout of learning and teaching resources, and plain decorations (Kałdonek-Crnjaković, 2020);
- During the lesson, allowing the student to close their eyes to, for example, focus on listening activities and provide instructions (Kałdonek-Crnjaković, 2020);
- Allowing the use of noise-cancelling headphones while, for example, performing writing assignments (Smith, 2015); and
- Using a multisensory approach, especially the kinaesthetic and tactical modes—walking at the back of the classroom, using a stress ball, drawing and scribbling (Kałdonek-Crnjaković, 2020).

Few studies report on the classroom approaches of language teachers. The English as a foreign language (EFL) teacher participants' approaches for inattention-related situations in Kałdonek-Crnjaković's study (2025) included providing learning support, helping the student to stay focused during the lesson, instructional practices, and behaviour management (p. 271). For the hyperactivity/impulsivity situations, these were seeking external help/working with others; the acceptance of the behaviour; praising and rewarding good behaviour; establishing and recalling rules, arrangements, and accommodations; attempting to understand the behaviour; and engaging activities (p. 273).

2.3. Language Teacher Self-Efficacy (TSE) in Teaching Students with ADHD

TSE is based on the concept proposed by Bandura (1977)—one's self-beliefs and expectations that one's successful conduct will lead to specific outcomes. The source of these beliefs is mastery experiences, vicarious experiences, verbal persuasion, and physiological and emotional states (Bandura, 1997). In the educational context, this translates to

(un)successful teaching experiences, teacher practice observation, feedback from others, and affective experiences (Zonoubi et al., 2017).

TSE is linked to effective classroom behaviour management (e.g., Lazarides et al., 2020; Saltali, 2022), willingness to adopt new ideas and practices (Guskey, 1988), and student academic achievement (Wang, 2022). It is also strongly related to job satisfaction (e.g., Burić & Kim, 2021; Kasalak & Dağyar, 2020; Vieluf et al., 2013), and gender and professional experience (e.g., Dilekli & Tezci, 2020; Fackler & Malmberg, 2016; Klassen et al., 2009), independently of country variations.

A number of studies have investigated TSE in classroom management, instruction, and student engagement within the Teaching and Learning International Survey (TALIS) framework (Ainley & Carstens, 2018). For example, Croatian teachers' TSE is positively related to instructional quality (Burić & Kim, 2020). Ukrainian teachers' TSE in classroom management and instructional strategies matches TALIS averages, but a lower level was found for engaging students effectively (Shchudlo et al., 2018). In comparison, Polish teachers' TSE in classroom management was the highest among all TALIS countries, and their allocation of time to this activity was the lowest (Hernik et al., 2015). Regarding East Asian countries, no differences were found among China, Japan, and South Korea—TSE was strongly associated with the length of teaching experience, teaching practice, classroom management, student–teacher relationships, job satisfaction, and motivation. More specifically, teaching experience and practice had a significant positive impact on TSE, whereas the teachers motivated by social utility showed higher TSE. In contrast, male teachers in Japan and South Korea had higher TSE than female teachers, but this was not found in China. Chinese teachers working in rural areas reported lower TSE; however, this was not found among the Japanese and South Korean teachers (An et al., 2021).

Some other studies showed that cultural values play a role in TSE. The recent systematic review revealed that cultural and linguistic diversity was positively associated with TSE (Peterson & Jensen, 2025). Dilekli and Tezci (2020) found that significant country-related differences affecting TSE beliefs for teaching thinking skills—Bulgarian and Greek teachers had a lower mean for TSE beliefs in the design, practice, and competence dimensions than teachers from Italy, Poland, Romania, and Spain. In a similar vein, Klassen et al. (2009) found that teacher participants from Korea and Singapore rated their overall TSE lower than those from Canada, Cyprus, and the USA. In addition, Korean and Singaporean teachers rated their TSE for instructional strategies and classroom management significantly lower than the teachers from the other countries.

Regarding TSE for inclusive practices and teaching students with special educational needs (SENs), teachers' awareness of the importance of the specialised treatment of children with ADHD positively correlates with their TSE level in providing specialised instruction, but only among younger teachers (e.g., Skočić Mihić et al., 2021; Šarčević Ivić-Hofman et al., 2023). Love et al. (2020) reported a significant positive correlation between TSE for teaching students with autism spectrum disorder and teacher engagement and student outcomes. In contrast, TSE was negatively correlated with teacher stress. The study also indicated that the teachers who participated in consultation scored higher on TSE. Similarly, Latouche and Gascoigne (2019) observed higher TSE for classroom management of ADHD-like behaviours after a professional development intervention.

Malinen et al.'s (2013) study investigated country differences in TSE and special educational needs—previous experience with students with special educational needs was salient for instruction, collaboration, and student behaviour management in the case of Chinese teacher participants. Regarding Finnish teachers, apart from the previous experience in teaching students with SENs, the amount of training on inclusive and special needs education explained TSE in all areas, whereas in the case of teachers from South

Africa, TSE for all factors depended on the experience in teaching students with special education needs and interaction with persons with disabilities.

In language teaching, studies investigated several topics, including student outcomes, emotional intelligence, language use for instruction, practicum effect, and teaching anxiety (see Wyatt, 2018, p. 102). For example, studies reported relatively high TSE among pre-service EFL teachers for classroom management, student engagement, and instructional strategies in the Turkish context (e.g., Balc©et al., 2019; Merc, 2015). Similarly, Japanese secondary school teachers reported high TSE for student engagement, instructional strategies, classroom management, and lesson planning, and these were correlated with teaching experience (Cirocki et al., 2024). In contrast, Polish EFL pre-service teachers reported relatively low TSE in all the components, especially among the participants with the least experience. Interestingly, the TSE for classroom management rose faster with increasing teaching experience compared to the TSE for instructional practices and student engagement (Bielska, 2011). The study by Song (2022) conducted among Chinese EFL teachers indicated that TSE was a good predictor of teachers' burnout.

Factors such as language proficiency, cultural knowledge, exposure to situations that align with teachers' beliefs, the ability to create and develop instructional materials, and responsibility for the entire learning process positively influence TSE cross-nationally. Conversely, spending excessive, uncompensated hours on material development, engaging in situations misaligned with teachers' beliefs, workload and stress, and the lack of a supportive environment may contribute to stress, burnout, and diminished confidence. In turn, TSE beliefs determine the level of effort individuals exert, their capacity to tackle difficulties, and their resilience when confronted with challenges (Caprara et al., 2006). Furthermore, these beliefs have been linked to job satisfaction and burnout (Klassen & Chiu, 2011), both of which are major factors contributing to teacher attrition (Madigan & Kim, 2021).

Zonoubi et al. (2017) reported a positive effect of professional learning communities' interventions on EFL teacher self-efficacy and collective efficacy, regardless of their professional experience. In the case of teachers with longer professional experience, a higher TSE was reported for alternative instructional strategies for responding to different learning styles and contexts, thanks to self-reflection evaluation and critical thinking. In contrast, novice teachers reported becoming more autonomous regarding teaching goals and procedures. Similarly, Spanish pre-service EFL teachers in Rodríguez Gil et al.'s (2024) study reported higher TSE after micro-teaching practice, especially for instructional strategies.

Regarding TSE of language teachers in inclusive practices and SENs, numerous studies show low self-reported preparedness for teaching students with SENs (e.g., Fišer, 2019; Kormos & Nijakowska, 2017; Nijakowska et al., 2018; Shcherba, 2021). However, the feeling of preparedness to work with such students can be increased by specialised training (e.g., Kałdonek-Crnjaković, 2024, 2025; Nijakowska, 2022; Kormos & Nijakowska, 2017; Shcherba, 2021). In the study of Kałdonek-Crnjaković (2025), teacher participants' higher agency after the training course on providing EFL instruction to students with ADHD was expressed by an increased number of more complex and well-informed approaches the teachers would take. Before the course, the participants would deal with inattention-related situations by alternating learning resources, rewarding proper behaviour, and simplifying instructions, whereas, after the course, the participants would provide specific and ongoing aid to support specific language learning skill development and help the student stay focused on the task, using short- and long-term goals. They would recognise the students' strengths in language learning by providing additional learning opportunities. Regarding hyperactivity/impulsivity, compared to the pre-course responses, after the course, the participants' approaches for regulating the student's behaviour involved

sequencing and a positive response. Most importantly, in all post-course responses for both inattention and hyperactivity/impulsivity situations, the participants would employ approaches for all the students in the classroom, rather than addressing them solely to students with ADHD, which shows a more inclusive approach.

Research in language TSE beliefs is abundant, as reported by Wyatt's (2018) review; however, little focus has been given to country differences and teaching students with special educational needs. To respond to this gap, this study investigated TSE and instructional practices of pre-service EFL teachers from four countries in six hypothetical classroom situations related to ADHD-like behaviours using a vignette methodology with situations directly related to the ADHD symptomology in the Diagnostic and Statistical Manual of Mental Disorders (DSM-5; APA, 2013). The research questions were as follows:

RQ1: To what extent do pre-service EFL teachers feel efficient when dealing with classroom situations related to the behaviours that stem from the specific presentations of ADHD? Will there be any country-specific differences?

RQ2: What approaches would pre-service EFL teachers take in specific situations? Will there be any country-specific differences?

Considering the previous research findings and the limited teaching experience of our participants, we hypothesised that their self-reported efficacy would be at a medium level, ranging between 3 and 4 or "disagree/agree to some extent" on the applied Likert-like scale. However, we assumed that the Japanese participants would rate their TSE lower than the participants in Poland, Turkey, and Ukraine, given the findings of Klassen et al. (2009), who found that teachers from Asian countries rated their TSE significantly lower than the teacher participants from Western countries.

3. Materials and Methods

The present study is part of a project that investigated TSE, teaching practices, and emotions in the context of working with students with ADHD. The project participants were pre-service EFL teachers in six countries: Croatia, Japan, Poland, Spain, Turkey, and Ukraine. The project was conducted by five researchers who are members of the research group affiliated with the institution of the first author, whose aim is to pursue research in the area of neurodiversity in language education. The present study reports on TSE and teaching practices of pre-service teachers from Japan, Poland, Turkey, and Ukraine. Our affiliation with the research group enabled us to draw on an existing international network of collaborators to access participants and develop a research design grounded in shared interests around neurodiversity and inclusive language education, with a particular focus on ADHD.

3.1. Participants

The initial data were collected from 68 pre-service English teachers: Ukraine (n = 22), Turkey (n = 16), Japan (n = 16), Poland (n = 8), Spain (n = 3), and Croatia (n = 3). All participants were enrolled in teacher education programmes and recruited through convenience sampling via institutional contacts. The data obtained from Croatian and Spanish participants were excluded because of the low number of respondents.

The final sample consisted of 62 participants: 43 females, 17 males, and 2 participants who preferred not to disclose their gender. The age of participants ranged from 18 to 29 years (M_{age} = 21.7 years). The participants' teaching experience, mostly in the form of tutoring or practicum required by the teacher training curriculum, ranged from 'none' to 'more than 5 years', with the highest percentage being recorded for 1 to 2 years (24%).

3.2. Data Collection

This study used an explanatory mixed-method approach (Creswell & Plano Clark, 2018) and vignette methodology in applied linguistics, that is, gathering data with "written stimuli that contain realistic or imaginable situation-specific contents that resonate with research participants to a degree that activates" a strong response (Goetze, 2023, p. 2). Quantitative and qualitative data were collected simultaneously through an online questionnaire. The questionnaire was distributed via Google Forms. Each author of this paper was responsible for collecting data in their country. The questionnaire was piloted with a small group of experienced teachers and student teachers (n = 15) to evaluate its clarity, relevance, and length, and the overall experience of completing it. Their feedback was used to revise the final data collection instrument.

The questionnaire included two parts—situational responses and demographic information. It was administered in English, and participants were encouraged to use online dictionaries if they had comprehension difficulties. Following the recommendations for vignette design and administration (Goetze, 2023, pp. 3–6), Part A contained six classroom vignettes, each illustrating a scenario based on behavioural indicators of ADHD, focusing on inattention (three vignettes) and hyperactivity/impulsivity (three vignettes), in line with DSM-5 diagnostic criteria (APA, 2013) (see Appendix A). Although the scenarios presented ADHD-like behaviours, none of them made an explicit reference to ADHD. In this way, we did not predispose participants' responses with a focus on ADHD but rather elicited responses to regular classroom situations.

One Likert-type item was asked to measure participants' TSE in managing each of the six ADHD-related classroom situations ("To what extent do you agree with the statement? I can efficiently deal with this situation.") on a scale from 1 ("strongly disagree") to 6 ("strongly agree"). The open question in each situation asked the participants about their approaches in the given situation ("What would you do in this situation?). Participants could write their answers in English or their native language. The responses in the native language of the participant were translated into English by the relevant researcher, considering their native language background. Part B of the questionnaire gathered participants' background data, including their age, country, gender, and teaching experience.

Following the recommendations of the ethics committee for research involving human participants at the institution of the first author, participants were explicitly informed that their participation was voluntary and anonymous, and that they could withdraw from the study at any point without consequence. Informed consent was obtained through an initial checklist that participants were required to read and confirm before proceeding with the online questionnaire.

3.3. Data Analysis

To answer the first research question ("RQ1: To what extent do pre-service EFL teachers feel efficient when dealing with classroom situations related to the behaviours that stem from the specific presentations of ADHD? Will there be any country-specific differences?"), the responses for the inattention situations were summed for each participant to form the "inattention construct" (IC). Similarly, the responses for the hyperactivity/inattention situations were summed for each participant to create the "hyperactivity/impulsivity construct" (HIC). Mean (M) and Standard Deviation (SD) were calculated for each country for each construct. The inattention situation scale had a Cronbach's alpha of α = 0.81; for the hyperactivity/impulsivity situation scale, α = 0.75. All data met the assumption of normality, and no potential outliers were found. The difference between the constructs for each country was measured using a t-test for paired samples. To examine differences between the participants from different countries for each construct, one-way ANOVA was conducted with the subsequent use of the Games–Howell post hoc test

because the assumption of homogeneity of variance failed (Howell, 2012). All the effect sizes are reported following applied linguistics guidelines (Plonsky & Oswald, 2014). All analyses were run using IBM SPSS version 29, and all alphas were set at 0.05.

The significantly lower number of Polish participants (n = 8), compared to the other cohorts (Ukraine n = 22, Japan n = 16, Turkey n = 16), may have violated the quantitative results and compromised their validity. However, given the sufficient number of qualitative responses for this cohort, we chose to report the analysis of all available data aligning with the research questions and cross-research questions and to discuss the findings accordingly.

To answer the second research question ("RQ2: What approaches would pre-service EFL teachers take in specific situations? Will there be any country-specific differences?"), following the methodological guideline for qualitative studies (Creswell & Poth, 2025), the open-ended responses were coded multiple times. In the first line of coding, data for each country was coded by two researchers independently for the approaches taken in a given situation. Subsequently, these initial codes were unified and categorised into groups of approaches for both IC and HIC by four researchers involved in qualitative data analysis. The coding was conducted iteratively through multiple discussions to ensure consensus and consistency in coding decisions (Saldaña, 2021). MAXQDA and NVivo programs were used for coding, depending on the availability at the institution of the researchers involved in coding the data. Tables 1 and 2 present a summary of codes generated in open coding and the codes generated in the second line of coding to establish categories of approaches for inattention situations and hyperactivity/impulsivity situations. The frequency of the approach used is expressed in percentages for each country.

Table 1. Progression from initial codes to categories for inattention situations.

Examples of Initial Codes	Second Line of Coding/Category of Approaches
Encourage the student to make an effort, recognising the importance of the task	Enhancing responsibility for learning
Scaffolding instructional materials, repetition, focus on error correction, checking comprehension of instruction	Attention-focusing techniques
Facilitate their talking, making class interesting, multimodal instruction	Engaging teaching approaches
Building classroom culture, establishing rules, stressing teacher-centred talk	Establishing classroom guidelines
Ignoring the behaviour, not paying attention to the student's behaviour	Ignoring
One-on-one talk, cooperation with families, offering more teacher guidance/help, paying more attention to the student	Individualised support
Raising awareness on how the behaviour may affect others, encouraging empathy towards others in class, understanding others' feelings	Awareness raising
Positive comments, praising the effort, rewarding	Feedback and reinforcement
Punishment, sending the student to the principal, warnings	Taking disciplinary actions

Trying to understand the student's behaviour/difficulties, reasoning the behaviour, accepting the student's approaches	Understanding/acceptance
Involving the student in the classroom activities, including other students, group work	Whole-class approaches

Table 2. Progression from initial codes to categories for hyperactivity/impulsivity situations.

Examples of Initial Codes	Second Line of Coding/Category of Actions
Cooperation with the family, setting goals, one-to-one talk	Individualised support
Allowing students to move, giving extra tasks	Engaging teaching approaches
Consulting colleagues, a school educator/psychologist	Seeking external help
Group work	Whole-class approaches
Sending to the principal, warnings	Taking disciplinary actions
Establishing rules	Establishing classroom guidelines
Attempting to understand the student's behaviour	Understanding/acceptance
Timetabling, using other activities to help students concentrate, using mindmaps	Attention-focusing techniques
Disregarding the student's behaviour	Ignoring
Raising awareness on how the behaviour affects others, encouraging self-reflection, encouraging empathy towards others in class	Awareness raising
Positive comments, praising the effort	Feedback and reinforcement

4. Results and Discussion

The first research question asked about the participants' level of TSE when dealing with ADHD-behaviour situations. The findings aligned with our hypothesis—we assumed no significant differences in TSE among our participants, except for the Japanese cohort. For the inattention situations, all participants reported a medium level of TSE, ranging between $M = 10.87$ and 12.60, which corresponds to "disagree/agree to some extent" or 3 and 4, respectively, on the Likert-like scale used in the questionnaire. One-way ANOVA showed no differences between the countries for IC: $F(3, 58) = 1.09$, $p = 0.359$, with a small effect size ($\eta p^2 = 0.54$), suggesting no practical implications.

Similarly, for the hyperactivity/impulsivity situations, the reported TSE was at the medium level between $M = 9.94$ and 12.23, which corresponds to "disagree/agree to some extent" or 3 and 4, respectively, on the Likert-like scale used in the questionnaire. One-way ANOVA showed no differences between the countries ($F(3, 58) = 2.20$, $p = 0.098$, $\eta p^2 = 0.10$). However, the post hoc analysis showed a significant difference between the Japan and Ukraine participants ($p = 0.011$), with a large effect size (Cohen's $d = 1.11$), which suggests practical implications: Compared to Ukrainian pre-service teachers, the Japanese ones may find it difficult to manage hyperactive/impulsive classroom behaviours such as excessive talk, blurting out an answer before a question has been completed, interrupting or intruding on others, frequent fidgeting with or tapping hands or feet, squirming in the seat, and frequent leaving of the seat in situations when remaining seated is expected and/or running about or climbing in situations where it is inappropriate. The hyperactivity/impulsivity situations may be challenging to deal with, and thus, TSE for these situations may be negatively correlated with teacher stress (cf. Love et al., 2020). These findings

also corroborate the results of Klassen et al. (2009), who found that teachers from Asian countries rated their TSE significantly lower than the teacher participants from Western countries, especially for instructional practices and classroom management. In this regard, it is worth considering that in Asian countries, English as a foreign language education is positioned as one of the most important national policies, which may put additional pressure on teachers.

A direct comparison of TSE levels for inattention and hyperactivity/impulsivity situations reveals another key insight (Table 3). In general, the differences between the IC and HIC constructs for each country were non-significant (*ps* ranging between 0.051 and 0.801) with small effect sizes (Cohen's *d* ranging between 0.04 and 0.42). However, it is worth noting that the difference in the case of the Japanese participants approached statistical significance ($p = 0.051$). This finding suggests that Japanese pre-service EFL teachers reported feeling more confident in managing classroom situations involving inattention-related behaviours. These are low attention to classroom tasks, lack of attention to detail, and making careless mistakes during language activities. They also involve not listening when the teacher gives direct instructions, failing to complete assigned tasks, and struggling with time management and task organisation. These challenges often affect students' ability to produce coherent and cohesive spoken or written work, such as essays, presentations, or conversations.

Table 3. Pairwise comparison of the IC and HIC for each country and across the sample.

Country	*M* IC (max.18)	*SD*	*M* HIC (max.18)	*SD*	*t*	*p*	Cohen's *d*
Japan	10.9	2.2	9.9	2.2	−2.12	0.051	0.42
Poland	11.9	2.6	11.7	2.7	−0.36	0.731	0.05
Turkey	12	4.4	11.8	4.2	−0.26	0.801	0.04
Ukraine	12.6	1.9	12.2	1.9	−0.75	0.458	0.19
Total	11.9	2.9	11.5	2.9	1.56	0.124	0.15

Regarding the second research question, we observed a range of similar approaches that would be employed independently of the country-specific context. In situations where students have difficulty sustaining attention during classroom tasks, fail to pay close attention to detail, or make careless mistakes in language activities, they may also appear not to listen when addressed directly or when instructions are given to the class. As a result, they often fail to follow instructions, complete assigned tasks, or manage their time effectively. Difficulties in organising written/spoken tasks and activities can lead to a lack of coherence and cohesion in their work (such as essays, presentations, and conversations). In response to such situations, the participants reported the following approaches:

- Enhancing responsibility for learning (i.e., strategies that help the student to self-regulate their behaviour for learning);
- Adopting attention-focusing techniques (i.e., strategies that help the student to focus or regain concentration when, for example, the student finds themself off task);
- Applying engaging teaching approaches (i.e., classroom tasks and activities that draw the student's interest and make them more involved in learning);

- Establishing classroom guidelines (i.e., making explicit behavioural rules to the student and reiterating them during lessons);
- Ignoring learning difficulties (i.e., deliberately disregarding the student's mistakes, lack of attention, etc.);
- Offering individualised support (i.e., providing one-to-one support to help students overcome their difficulties);
- Providing feedback and reinforcement (i.e., providing constructive information on the student's learning and behaviour, and giving recognition of good behaviour for learning by praising and rewarding);
- Raising awareness (i.e., making the student aware of others' feelings because of their approaches, encouraging empathy towards others);
- Taking disciplinary actions (i.e., commenting on the student's behaviour, warnings, making the student obey the rules);
- Displaying understanding/acceptance (i.e., attempts to understand the student's behaviour, checking what causes the specific difficulty or reaction, accepting and allowing the student to make mistakes, not following instructions, etc.);
- Whole-class approaches (i.e., approaches that address the whole class to manage all students' behaviour for learning, for example, working in pairs or groups and collaborative tasks).

Table 4 presents the percentage of the approaches in each category for each country in inattention situations. Table 5 presents sample narratives for managing inattention situations. The most common approaches were individualised support, especially by Ukrainian participants (53% versus 19% in Japan, 15% in Poland, and 15% in Turkey), followed by attention-focusing techniques, engaging teaching approaches, and establishing classroom guidelines, except for Ukrainian participants (4%, 4%, and 6.5%, respectively). The feedback and reinforcement category was mainly reported by Ukrainian participants (11% compared to 0% in Japan, 2% in Poland, and 0% in Turkey). Understanding/acceptance was most reported by Polish participants (38% versus 0% in Japan, 1% in Turkey, and 13% in Ukraine), whereas taking disciplinary actions was distinctive for Turkish participants (25% versus 9% in Japan, 0% in Poland, and 6.5% in Ukraine), and attention-focusing techniques for Japanese participants (32% versus 10% in Poland, 18% in Turkey, and 4% in Ukraine). The least common approaches were enhancing responsibility for learning (2% in Japan, 0% in Poland and Ukraine, and 3% in Turkey), ignoring the student's learning difficulties (0% in Japan, Poland, and Ukraine and 4% in Turkey), awareness raising (2% in Japan and Poland, 1% in Turkey, and 0% in Ukraine), and whole-class approaches (0% in Japan, 1% in Poland and Turkey, and 2% in Ukraine).

The observed cross-country differences, however, may reveal culture-related classroom inattention behaviour management. Turkish participants would disregard the student's frequent mistakes or their lack of attention to details, unlike the participants in the other countries. Polish participants would not employ disciplinary measures and displayed a higher level of understanding and acceptance of such students' behaviours, which suggests that pre-service teachers in Poland may tend to prioritise the emotional and social needs of their students with ADHD.

In contrast, Japanese and Turkish participants would employ more proactive approaches that would help students to overcome the challenges related to inattention, such as enhancing responsibility for learning, applying engaging teaching, and adopting attention-focusing techniques. In comparison, the Ukrainian participants would extensively use individualised support but not attention-focusing techniques, establishing class guidelines, and engaging teaching approaches.

Table 4. Comparison of approaches for managing inattention situations (the percentage of the approaches in each category for each country).

Category of Approaches	Japan (J) %	Poland (P) %	Turkey (T) %	Ukraine (U) %
Enhancing responsibility for learning	2	0	3	0
Attention-focusing techniques	32	10	18	4
Engaging teaching approaches	19	11	21	4
Establishing classroom guidelines	17	21	11	6.5
Ignoring	0	0	4	0
Individualised support	19	15	15	53
Feedback and reinforcement	0	2	0	11
Awareness raising	2	2	1	0
Taking disciplinary actions	9	0	25	6.5
Understanding/acceptance	0	38	1	13
Whole-class approaches	0	1	1	2
Total	100	100	100	100

Table 5. Approaches and sample narratives for managing inattention situations.

Category of Approaches	Sample Narratives
Enhancing responsibility for learning	"After giving instructions, I ask, 'XXX, tell me what you are going to do,' so as to check the level of understanding." (J) "I would try to make them realize they should also make an effort to be able to learn." (T)
Attention-focusing techniques	"I would tell them to make a schedule or to-do list not to forget what you have to do" (T) "I would keep paying their attention to what is happening in the classroom, give the student clues how to improve their answers and keep patient." (P)
Engaging teaching approaches	"Give him other, more interesting activities" (U) "I try to find something they like or interest. Change my activity style." (T)
Establishing classroom guidelines	"I would make the rules for classes." (J) "Remind the learner about the assignment and the deadline." (U)
Ignoring	"If the classroom is crowded, I would not care to do anything." (T) "I honestly would not do anything." (T)
Individualised support	"I ask them why they acted the way they did and communicate with patience and without anger." (J) "Provide a written instruction to the student." (P)
Feedback and reinforcement	"Thank him for the answer." (U) "Offer some kind of rewards for obeying the rules" (P)
Awareness raising	"I would describe the feeling his classmates can feel because of his behavior." (T) " If the student is talking to other students while I gave them or others instructions I would explain

	to them why such behaviour is disrupting to me and the class." (P)
Taking disciplinary action	"I would force them to sit in different places so that they could not speak with their friends when I was giving instructions or teaching." (T) "I warn them not to bother others." (J)
Understanding/acceptance	"Making sure I am not the reason for not listening. I would try to discover the causes and find a solution." (P) "I would learn more about the disorder. I would ask S why they do this." (U)
Whole-class approaches	"I will give more group work so that classmates can help such a student or I will personally question whether he understood everything." (U) "I would also try to engage either myself or other students in pair or group work so that the student has other people to help keep track of the instructions." (P)

The respondents reported approaches for managing hyperactivity and impulsivity situations, which are characterised by frequent excessive talking, blurting out an answer before a question has been completed, and interrupting or intruding on others. Such situations also included frequent fidgeting with or tapping hands or feet, or squirming in the seat, and frequent leaving of their seat in situations when remaining seated is expected and/or running about or climbing in situations where it is inappropriate. Their responses made reference to the following practices:

- Offering individualised support (i.e., providing one-to-one support to help the student regulate their behaviour);
- Applying engaging teaching approaches (i.e., tasks and activities that allow the student to move more and be less bored);
- Seeking external help (i.e., consulting the student's behaviour with their parents and school professionals, e.g., colleagues and a school educator and psychologist);
- Implementing whole-class approaches (i.e., activities and tasks involving all students in the class, e.g., group work, movement and relaxation activities for the whole class);
- Taking disciplinary actions (i.e., commenting on the student's behaviour, warnings, making the student obey the rules, punishment);
- Establishing classroom guidelines (i.e., making explicit behavioural rules for the student and reiterating them during lessons);
- Displaying understanding/acceptance (i.e., attempts to understand the student's behaviour, checking what causes the specific behaviour, accepting and allowing the way the student behaves);
- Adopting attention-focusing techniques (i.e., strategies that help the student to regulate their behaviour);
- Ignoring the student's behaviour;
- Raising awareness (i.e., making the student aware of others' feelings because of their behaviour, encouraging empathy towards others);
- Providing feedback and reinforcement (i.e., providing constructive information on the student's behaviour and giving recognition and praising good behaviour).

Table 6 presents the percentage of the approaches in each category for each country in hyperactivity/impulsivity situations. Table 7 presents sample narratives for managing hyperactivity/impulsivity situations. The approaches that all the participants reported

were individualised support, whole-class approaches, establishing classroom guidelines, understanding/acceptance, and awareness raising. Engaging teaching methods and seeking external help would be employed by all but the Turkish participants, whereas taking disciplinary actions and feedback and reinforcement would be employed by all but the Polish participants. Attention-focusing techniques would be used only by the Japanese participants, whereas ignoring would be employed only by the Ukrainian participants.

The most common approach was individualised support, especially by Japanese, Turkish, and Ukrainian participants (36%, 35%, and 40%, respectively). Seeking external help and understanding/acceptance were most reported by Polish participants (34% versus 10% in Japan, 0% in Turkey, and 5% in Ukraine and 19% versus 4% in Japan, 4% in Turkey, and 5% in Ukraine). Whole-class approaches would be most applied by Ukrainian participants (14% versus 4% in Japan, 3% in Poland, and 2% in Turkey), whereas taking disciplinary actions would be most used by Turkish participants (30% versus 15% in Japan, 0% in Poland, and 12% in Ukraine). Establishing classroom guidelines would be more common in Poland and Turkey (17% and 22%, respectively, versus 8% in Japan and 7% in Ukraine).

The extensive reliance on external assistance among Polish participants may be surprising when compared to the results of the reported TSE. There was no significant difference between the TSE results for the inattention and hyperactivity/impulsivity situations in the case of Polish participants (Table 3; $p = 0.731$, Cohen's $d = 0.05$). The TSE of Polish participants was similar to the Turkish and Ukrainian participants ($p > 0.05$). Additionally, Polish participants would not take disciplinary approaches and showed the highest level of understanding/acceptance. These findings, similar to those in inattention situations, suggest that Polish pre-service EFL teachers may prioritise the emotional needs of their students with ADHD, differing from their counterparts in other countries, who tend to adopt more behaviour-regulated approaches, such as disciplinary actions or feedback and reinforcement.

Table 6. Comparison of approaches for managing hyperactivity/impulsivity situations (the percentage of the approaches in each category for each country).

Category of Approaches	Japan (J) %	Poland (P) %	Turkey (T) %	Ukraine (U) %
Individualised support	36	22	35	40
Engaging teaching methods	4	2	0	2
Seeking external help	10	34	0	5
Whole-class approaches	4	3	2	14
Taking disciplinary actions	15	0	30	12
Establishing classroom guidelines	8	17	22	7
Understanding/acceptance	4	19	4	5
Attention-focusing techniques	8	0	0	0
Ignoring	0	0	0	7
Awareness raising	8	3	4	3
Feedback and reinforcement	3	0	3	5
Total	100	100	100	100

Table 7. Approaches and sample narratives for managing hyperactivity/impulsivity behaviours.

Category of Approaches	Sample Narratives
Individualised support	"I often make them sit at the front desk so that I can control their movement easily." (T) "I would suggest him to walk around the class" (U)
Engaging teaching methods	"Instead of teaching the same content all the time, include activities to help students stay focused." (J) "I would try to find other ways for the student to be enagaged (physical activities) so that their energy levels are not so high." (P)
Seeking external help	"I would try to find the solution and inform parents and school counsellor." (P) "Talk to the student's parents and with professionals" (U) "I would ask for help from other teachers." (J)
Whole-class approaches	"Provide activities that allow children to move their bodies and have fun so that they do not get bored." (J) I'd give the learner or the whole group a chance to move (a TPR activity, small group assignment, moving lines or onion technique etc.) (U)
Taking disciplinary action	"I would say to him or her to be respectful while there is a teacher in the classroom." (T) "In case these rules were not followed, I'd sanction them." (U)
Establishing classroom guidelines	"I make sure they follow the rules and regulations of life." (J) "I would remind them that they can voice their opinion after the other person finishes." (P)
Understanding/acceptance	"Ask my student why he is behaving like that." (P) "I don't give a warning to it because it is a characteristic of the person." (J)
Attention-focusing techniques	"I call out to them and designate a place to look, such as a blackboard, to help them focus." (J) "Instead of teaching the same content all the time, include activities to help students stay focused." (J)
Ignoring	"I'd ignore it." (U) "If the situation were safe for the child and the rest of the class, I'd ignore it partly (U)
Awareness raising	"I would attempt to help them emphasize with their classmates, showing that if they keep on fidgeting or moving around, they will distract both themselves and their classmates from learning information that is useful" (J) "I would say that I appreciate their answers but they also need to let their friends talk." (T)
Feedback and reinforcement	"Provide the student with positive feedback and rewards when they demonstrate appropriate

	communication and behavior, such as waiting their turn to speak." (U) "Before the lesson, a physical activity and reward system can be applied. It's like giving a sticker to the student at the end of the lesson." (T)

It is paramount that pre-service language teachers learn about the variety of approaches that can be used for specific ADHD-like behaviours so that their practice is more universal and language-skill-development-oriented. This includes designing specific long- and short-term goals, dynamic classroom activities, ongoing constructive feedback, motivational strategies, providing additional learning opportunities, responding to the situations with approaches for all students in the classroom rather than focusing on the students with ADHD, and minimising stimuli in the learning environment and resources (cf. Kałdonek-Crnjaković, 2020, 2025; Kormos et al., 2009; Smith, 2015). The more informed practice gained during teacher training events that include a discussion of cross-country and cultural differences is likely to raise TSE of pre-service language teachers (cf. Kałdonek-Crnjaković, 2024, 2025; Nijakowska, 2022; Kormos & Nijakowska, 2017; Shcherba, 2021).

5. Conclusions

The present study investigated TSE and approaches for ADHD-like situations of pre-service EFL teachers from four countries—Japan, Poland, Turkey, and Ukraine. We found a moderate level of TSE among the participants for both inattention and hyperactivity/impulsivity situations. In other words, the participants feel only moderately confident in dealing with ADHD-like behaviours in the classroom. Even though their confidence is moderate, they are already using some teaching methods that research has shown to be effective for managing such behaviours. This finding is encouraging because it suggests they have a good starting point. With targeted training and better integration of these methods into teacher education curricula, they could bridge existing gaps, increasing both their confidence and the effectiveness of their inclusive teaching practices.

The participants reported many approaches for managing ADHD-like behaviours, ranging from individual support to whole-class actions. Some cross-country differences were observed in this regard. In situations involving inattention, Japanese and Turkish participants would take a more proactive stance by enhancing self-management, whereas Ukrainian participants would prioritise individual support. In contrast, Polish participants would avoid disciplinary actions and show more understanding and acceptance of the student's behaviour, which suggested focusing on the emotional needs of the students with ADHD. Similarly, for hyperactivity/impulsivity situations, Polish participants would show higher understanding and acceptance of the student's behaviour, but at the same time, they would seek external assistance to manage the student's behaviour, which may affect classroom management. In contrast, Ukrainian participants would opt for approaches that address the behaviour of all students in the classroom, whereas Turkish participants would commonly take disciplinary actions. These findings call for the use of more universal and language-skill-development-oriented approaches, which could address a broader range of needs of learners with different cognitive profiles.

A key strength of this study is its international scope, which allows for insightful cross-cultural comparisons. Such a perspective uncovers both similarities and differences in the interpretation and management of ADHD-like behaviours, offering valuable insights into the development of more universal and evidence-based approaches to inclusive language teaching. Diversity in nationality, gender, and teaching background provides a rich basis for understanding pre-service TSE and decision-making when

responding to ADHD-related classroom situations. Thus, studying cross-country differences in the context of ADHD and language learning and teaching is important because of the varied attitudes and interpretations of ADHD-like behaviours, as well as the sociocultural factors that underlie language learning and teaching in different countries. Conducting cross-border research and studies on teaching methods and approaches for learners with conditions such as ADHD, which are on the rise worldwide, holds significant value in teacher education. This can lead to the cultivation of more skilled educators, the provision of better education, and the creation of a more conducive learning environment for all children. In addition, the combined use of quantitative and qualitative data enhances the study's validity and comprehensiveness, providing a holistic understanding of teacher perceptions and instructional strategies.

This study also has limitations, including the small sample size, which limits the generalisability of the results, and does not use more complex data collection instruments for examining TSE. However, these exploratory findings can inform the design of future research, for example, comparing TSE and the frequency of use of the identified approaches pre- and post-training by pre- and in-service language teachers in different countries and cultures for specific ADHD-like situations.

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Appendix A. ADHD-Related Hypothetical Classroom Scenarios (Vignettes)

Situation 1/Inattention: Your student often has difficulty sustaining attention when doing classroom tasks. They fail to give close attention to details or make careless mistakes while doing language tasks and activities.

To what extent do you agree with the statement? I can efficiently deal with this situation.

1 "strongly disagree"
2 "disagree"
3 "disagree to some extent"
4 "agree to some extent"
5 "agree"
6 "strongly agree"

What would you do in this situation?

Situation 2/Inattention: Your student often does not seem to listen when you talk to them directly or when you give instructions to the class. Consequently, they often do not follow through on instructions and fail to finish assigned tasks and activities.

Situation 3/Inattention: Your student often has trouble organising tasks and activities. They find time management challenging, and their written and spoken work lacks coherence and cohesion (e.g., essays, presentations, conversations).

Situation 4/Hyperactivity–impulsivity: Your student often talks excessively, blurts out an answer before a question has been completed, and interrupts or intrudes on others.

Situation 5/Hyperactivity–impulsivity: Your student often fidgets with or taps hands or feet, or squirms in their seat.

Situation 6/Hyperactivity–impulsivity: Your student often leaves their seat in situations when remaining seated is expected and/or often runs about or climbs in situations where it is inappropriate.

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