

P.E.rfect Needs Assessment for Determining Training Priorities for Emerging Inclusive Physical Educators of Children with Autism Across Seven Nations

Produced by Masaryk University in collaboration with PErfect Project Partners



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Introduction

The PERfect project is an Erasmus+ supported endeavor with the major objectives of the project include:

- Identifying the gaps and mapping current good practices related to physical education of students with autism in primary schools.
- Developing a model of blended training for physical education teachers, providing them with skills:
 - To effectively support the inclusion of students with autism and also to effectively manage student behavior.
 - To pilot-test the developed materials and training program with physical education teachers of the partner countries.
 - Including evaluation of their appropriateness, effectiveness, and impact.
 - To share the program, tools, and materials with stakeholders and make recommendations to national policymakers throughout partner countries.

Overall, its aim is to best meet the needs of emerging inclusive physical educators of children with autism across the seven European partner nations by creating, at minimum, the following outcomes:

- Needs Assessment: To determine what emerging inclusive physical educators need to know in each country.
- Educational Package
 - Toolkit
 - Lesson Plans Guidebook
 - Assessment Tool
 - Goal Bank
- e-Learning Platform: For placement of all Educational Package materials.
- Multi-level Trainings: Targeting the use of the Educational Package and e-Learning Platform.
- Dissemination of the Project and Materials: In an effort to reach a wider audience across all participating countries the project and materials will be disseminated via social media, local conferences, and related publications.



Needs Assessment Overview

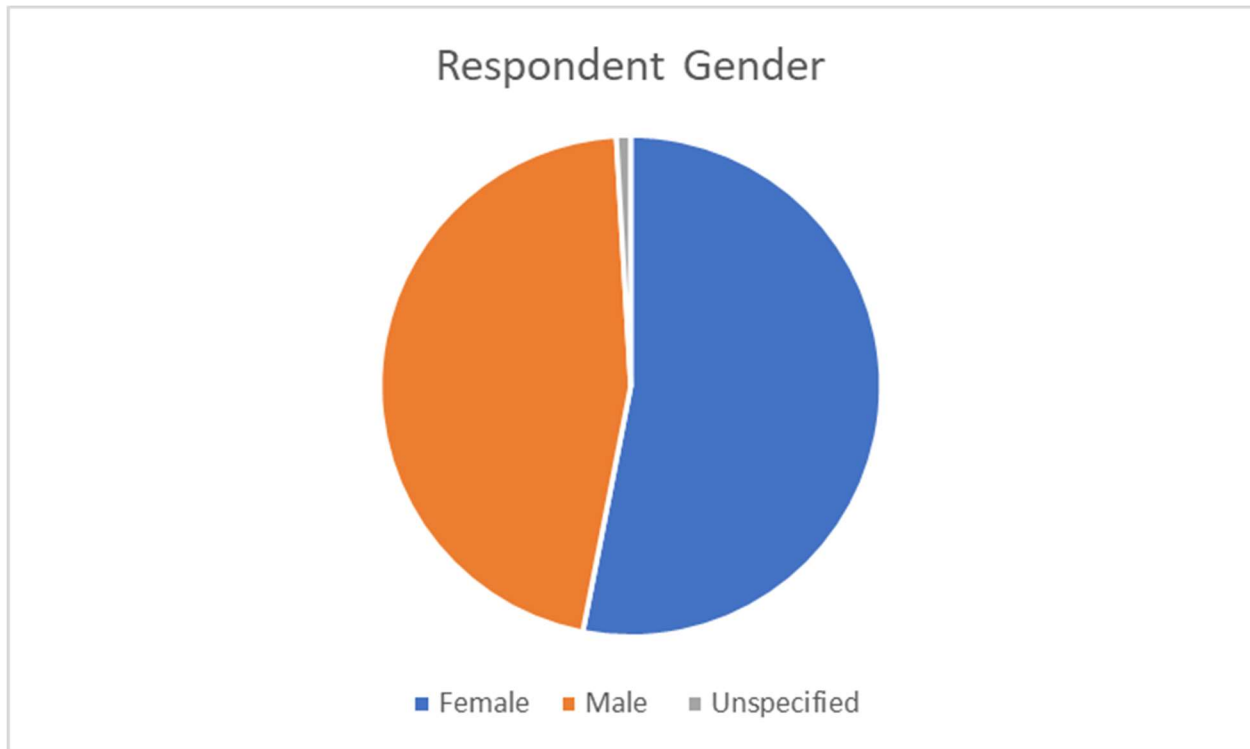
To best drive the development of the PERfect outcomes the seven partner countries in the PERfect project worked together to develop, distribute, and later analyze results of a survey to assess the training needs of emerging inclusive physical educators of children with autism. Numerous systematic steps were taken including:

1. Review of existing peer-reviewed published research on inclusive physical education for children with autism in the seven European countries of: N. Macedonia, Cyprus, Poland, Ireland, Czech Republic, Bulgaria and Spain.
2. Review of existing survey and research tools related to relevant self-efficacy and knowledge assessment of inclusive physical educators.
3. Development of a self-efficacy and knowledge assessment tool for use with physical educators with a strong emphasis on applications of empirically validated behavioral-science based strategies.
4. Collaborative review of the survey tool.
5. Cultural and linguistic translations.
6. Piloting.
7. Participant recruitment via social media and targeted email blasts.
8. Public availability of the survey tool from April to June 2023
9. Initial analysis of results as related to project PERfect outcome development.

Respondent Overview

A total of 326 respondents completed the survey across the seven countries. There were 43 respondents from Bulgaria, 81 respondents from Cyprus, 63 respondents from the Czech Republic, 27 respondents from Ireland, 67 respondents from North Macedonia, 32 respondents from Poland, and 13 respondents from Spain. All of the individuals who completed the survey stated that they were currently teaching physical education. However, specific job titles varied greatly across categories such as classroom teacher, teacher assistant, physical educator, special education teacher, coach, instructor, and director. As depicted in Chart 1, gender was close to equally distributed. The average respondent age was 42 years, with a range of 21 to 66.

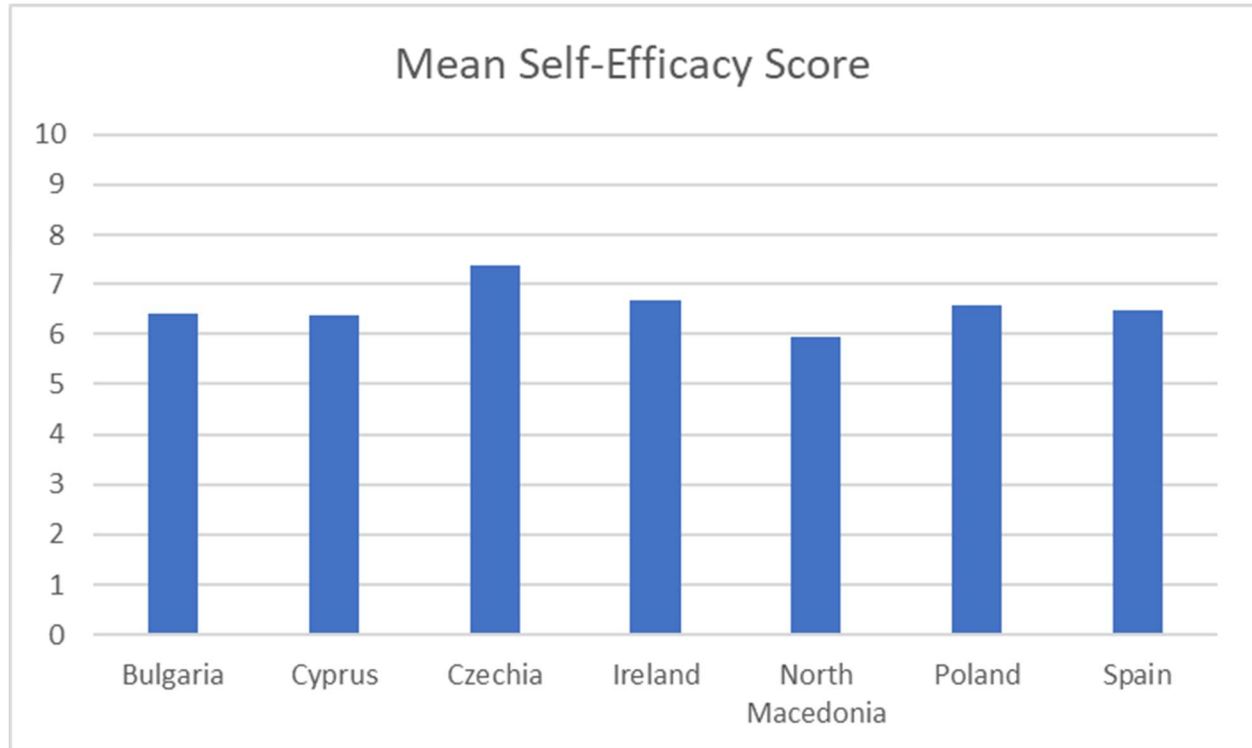
Chart 1.



Self-Efficacy Overview

At the beginning of the survey the physical educators were asked to answer 10 questions which were scored together to rate their perceived level of self-efficacy in providing inclusive physical education to children with autism. The highest possible self efficacy score was 10. Chart 2 below shows the mean scores across countries. All countries had mean self-efficacy scores between 6 and 7.

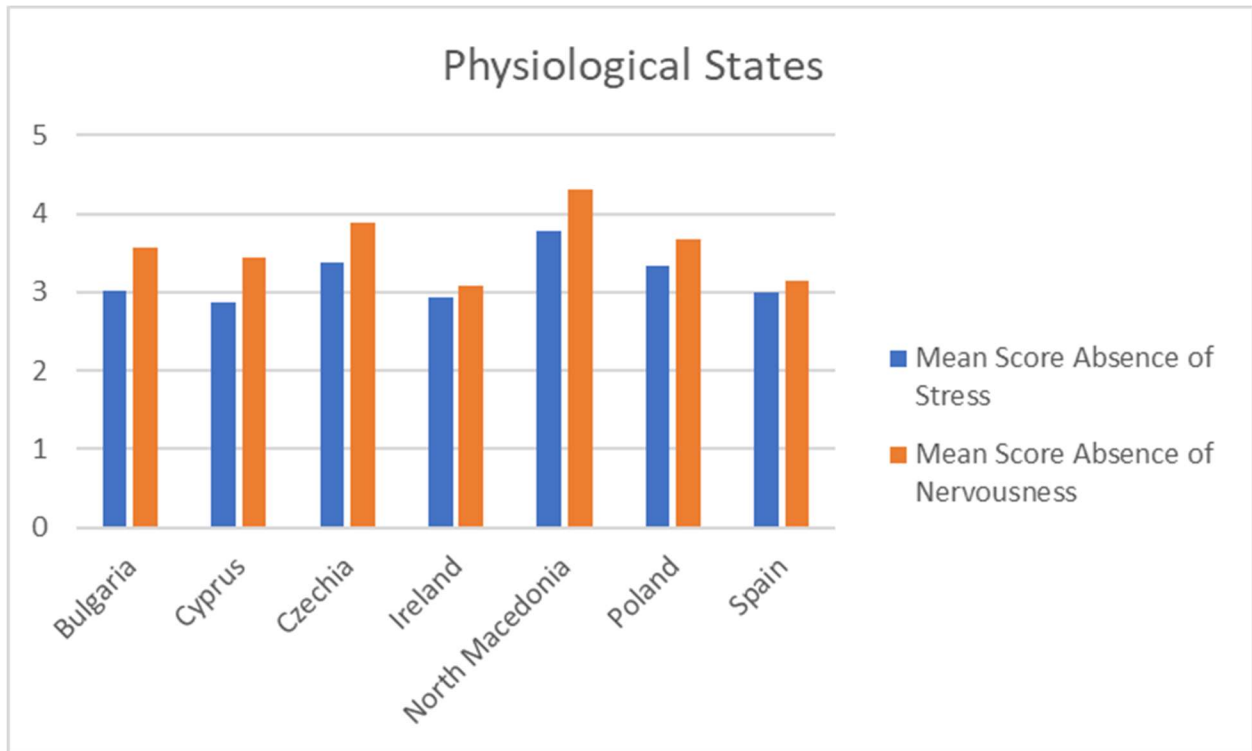
Chart 2.



Physiological States Overview

After rating self-efficacy, two questions were asked which focused on having the participants self-assess their feelings (physiological states) around having a child with autism in their general physical education classroom (i.e., stress and nervousness). Out of a five point scale, a higher rating represented less feelings of stress and nervousness. Chart 3 shows the mean scores across each country. All countries reported higher levels of stress (as represented by lower mean scores) and lower levels of nervousness. Overall, though, since scores closer to 5 represent better outcomes (physiological states), it can be observed that these are not necessarily powerful variables inhibiting the inclusion of children with autism in the physical education classroom.

Chart 3.



Challenges Overview

To assess which challenges appear to be most hindering physical educators in including children with autism in their classroom, we asked the survey respondents to evaluate 11 common challenges. Scores closest to 5 represented the largest degree of challenge. Overall, most items were scored within the 2-3 range. However, the highest scores were seen among behavior problems and class size, with on-task behaviors and skill differences following closely behind. Table 1 shows the means for each item across each country and the combined means.



Table 1.

Challenges	Bulgaria	Cyprus	Czechia	Ireland	North Macedonia	Poland	Spain	Grand Total
Modifying activities	2.4	2.7	3.1	2.6	2.5	2.6	3.3	2.7
Student staying on task	2.8	3.4	3.7	3.4	2.7	3.4	2.8	3.2
Student behavior problems	3.1	3.4	3.8	3.2	2.8	3.4	3.6	3.3
Limited training on autism	2.5	3.4	3.1	3.5	3.0	2.3	2.9	3.0
Lacking information about the student	2.8	3.1	2.2	2.7	2.7	2.7	2.8	2.7
No aid or support to help	2.8	3.1	2.3	3.0	2.5	3.1	2.4	2.7
Student's skill level being different than classmates	2.8	3.2	3.7	3.6	2.8	3.3	2.8	3.2
Multiple classes in the gym	3.2	2.9	2.6	3.6	3.2	3.7	2.4	3.1
Large class sizes	3.1	3.8	3.1	3.9	2.9	3.3	4.0	3.3
Lacking appropriate equipment	2.9	3.2	3.3	3.1	3.0	3.1	3.5	3.1
Lacking time to make modifications	2.4	2.6	3.1	2.7	2.1	3.0	3.5	2.7

Practice Overview

The final main area that was assessed was practice. In this section of the questionnaire the respondents were asked to rate their level of expertise in specific empirically-validated strategies for supporting children with autism in the inclusive setting. Twenty-four strategies were evaluated. Scores closer to 5 represent a higher level of expertise. The majority of scores were under 3. Therefore, it appears that most respondents across countries do not consider themselves skilled in implementing these specific strategies for supporting children with autism in the inclusive physical education classroom.



Table 2.

Strategy	Bulgaria	Cyprus	Czechia	Ireland	North Macedonia	Poland	Spain	Grand Total
Environmental Modifications	2.3	2.7	2.6	2.4	2.3	2.3	2.5	2.5
Visual Supports	2.6	2.9	2.9	2.2	2.5	2.1	2.7	2.6
Picture Schedule	2.0	2.8	2.7	1.9	2.5	1.9	2.6	2.4
Video Modeling	2.0	2.8	2.0	1.9	2.4	1.6	2.4	2.2
Checklists	2.4	2.5	2.1	2.2	2.6	1.7	2.9	2.3
Token Economy	2.9	2.5	2.5	1.5	2.1	2.0	2.8	2.3
Social Stories	2.7	2.5	2.2	1.9	2.5	1.8	2.2	2.4
Modifying Rules	3.0	3.1	3.0	3.3	2.4	2.5	2.7	2.9
Modify Instructions	2.9	3.2	3.2	3.3	2.5	2.6	2.8	2.9
Differentiating Instruction	2.9	3.2	3.2	3.3	2.6	2.7	2.8	3.0
Peer Modeling	2.7	2.9	2.7	2.9	2.7	2.4	3.0	2.7
Behavior Contracts	2.7	2.8	2.0	2.1	2.7	2.4	2.5	2.5
Task Analyses	2.6	2.6	2.6	2.1	2.7	2.4	2.9	2.6
Adaptive Equipment	2.4	2.8	2.5	2.4	2.6	2.3	2.7	2.6
Reinforcement	2.6	3.4	2.7	3.1	2.6	2.8	2.8	2.9
Specialized Communication Tools	2.5	2.5	2.5	1.8	2.1	2.0	2.4	2.3
Adapted Physical Education Assessment Scale	2.4	2.5	1.9	1.6	2.5	1.6	2.5	2.2
Specialized APE Curriculum	2.3	2.5	1.9	1.7	2.4	1.5	2.0	2.2
Collaborating with Other Professionals	2.8	3.0	2.6	3.0	2.7	2.4	3.2	2.8
Collaborating with Caregivers	2.5	3.2	3.1	2.9	2.8	2.8	3.1	2.9
Collaborating with the Student	2.8	3.3	2.4	3.1	3.0	3.0	3.2	2.9
CE Activities in APE	2.3	2.7	2.4	2.1	2.6	2.1	2.6	2.5
Self-evaluation	2.7	3.1	2.7	2.8	2.8	2.8	2.9	2.9
General Adaptations	2.6	3.1	3.0	2.9	2.9	2.6	2.9	2.9

Conclusions

Overall, the work of this needs assessment seems to verify the importance of developing outcomes within the PERfect project that specifically train physical educators in the use of empirically-validated strategies for supporting children with autism in the inclusive setting. It does not appear that work needs to be specifically done, meaning training materials created or learning modules targeted, that relate to addressing stress and/or nervousness. Additionally, the dimension of self-efficacy in general does not appear to need bolstering. Furthermore, while some challenges may benefit from being addressed, such as addressing behavioral needs, these also represent an overall low level of concern. Rather, it seems clear from this preliminary research conducted across all partner countries that the training and educational materials that are largely needed are related to specific skill-building in educators.

Specifically, tools should be created that incorporate explicit teaching strategies, systematic instructions in their applications, and opportunities for ongoing usage. While the data revealed that most strategies are relatively unknown to physical educators across all the countries, some of those which might benefit from the most intensive training include the use of:



- Video modeling
- Checklists
- Token economy
- Communication tools
- Specialized assessments
- Specialized curricula

Therefore, the PERfect project's upcoming goals of creating an assessment tool, curricular guide/goal bank, and lesson plans incorporating validated strategies (e.g., video modeling, checklists, token economy, and communication supports) appears to align with the needs of the surveyed regions.



PERfect

An Autism and Behaviour Management Training for P.E. schoolteachers

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Disclaimer

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