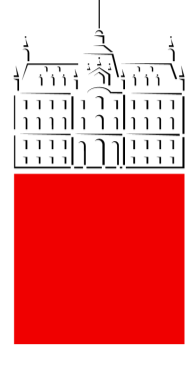




Osnovna šola Orehek Kranj

University of Ljubljana  
Faculty of Education



# Evaluation of i-learning materials from the Erasmus project ARphymedes Plus



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ARPHYMEDES +

## Abstract

Nowadays, interactive learning materials play an important role in learning a subject and it is important that they are also suitable for students with special educational needs (SEN), because there are more opportunities for personalization when using interactive learning materials. Most researchers agree that appropriate use of information and communication technology (ICT) can reduce disparities in inclusive education and that students with SEN need to have access to ICT-based programs that are part of the school curriculum [1, 2]. One way to bring subject matter closer to students with SEN is to convert textbooks to interactive textbooks (i-textbooks). In this paper, we present the results of the evaluation of the i-learning materials for physics teaching developed in the framework of the Erasmus project ARphymedes Plus. The materials were tested in the Primary school OŠ Orehek Kranj by a group of 8th grade primary school students with SEN. Some SEN students have identified special learning difficulties and have the status of a special educational needs student, for others this is only stated. We were interested in how students commented on the physics i-learning materials and where they saw opportunities for improving them. In order to collect data, a questionnaire was prepared for the students in electronic form, but regarding the situation in the classroom, the interviews were conducted with the students as well. The results of the evaluation will show how the students accepted these i-learning materials and where there is room for improvement.

## Description of the project

Erasmus + KA226 (2020-1-SK01-KA226-SCH-094415)  
project entitled AR Physics made for students with special needs (acronym: ARphymedes Plus)

**Duration:** 2021-2023

### Partners:

University of St. Cyrila a Method in

Travne (Slovakia, applicant),

- Slovenska Technical Universita v Bratislave (Slovakia),
- Univerza v Ljubljani (Slovenia),
- Vitale Tecnologie Comunicazione - VITECO SRL (Italy),
- DIADRASIS (Greece),
- Základná škola Postupimská 37 v Košiciach (Slovakia)
- Osnovna šola Orehek Kranj

## Objectives

The objectives of the project are broad and range from **achieving equity and dignity for the majority of students** so that all students can express their potential and talents, including:

- **adapting the output** to the needs of SEN students and teachers,
- **analyzing the interaction and behavior patterns** of SEN students in the technology-enhanced learning process,
- **developing an online platform that supports personalized learning** and is adapted to the individual needs of students with different abilities.

## Results of the evaluation:

Figure 1: Results of questionnaire: »Evaluate statements.«

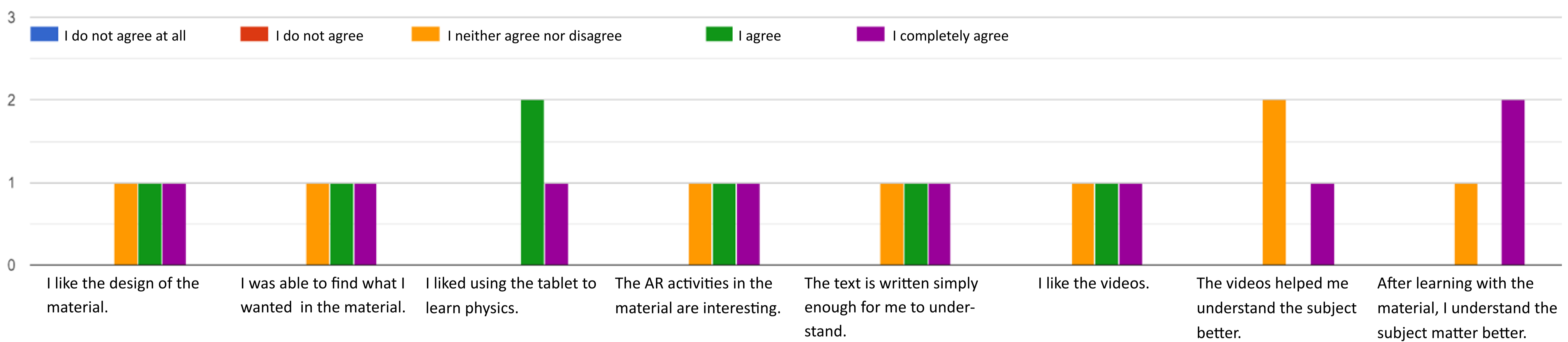
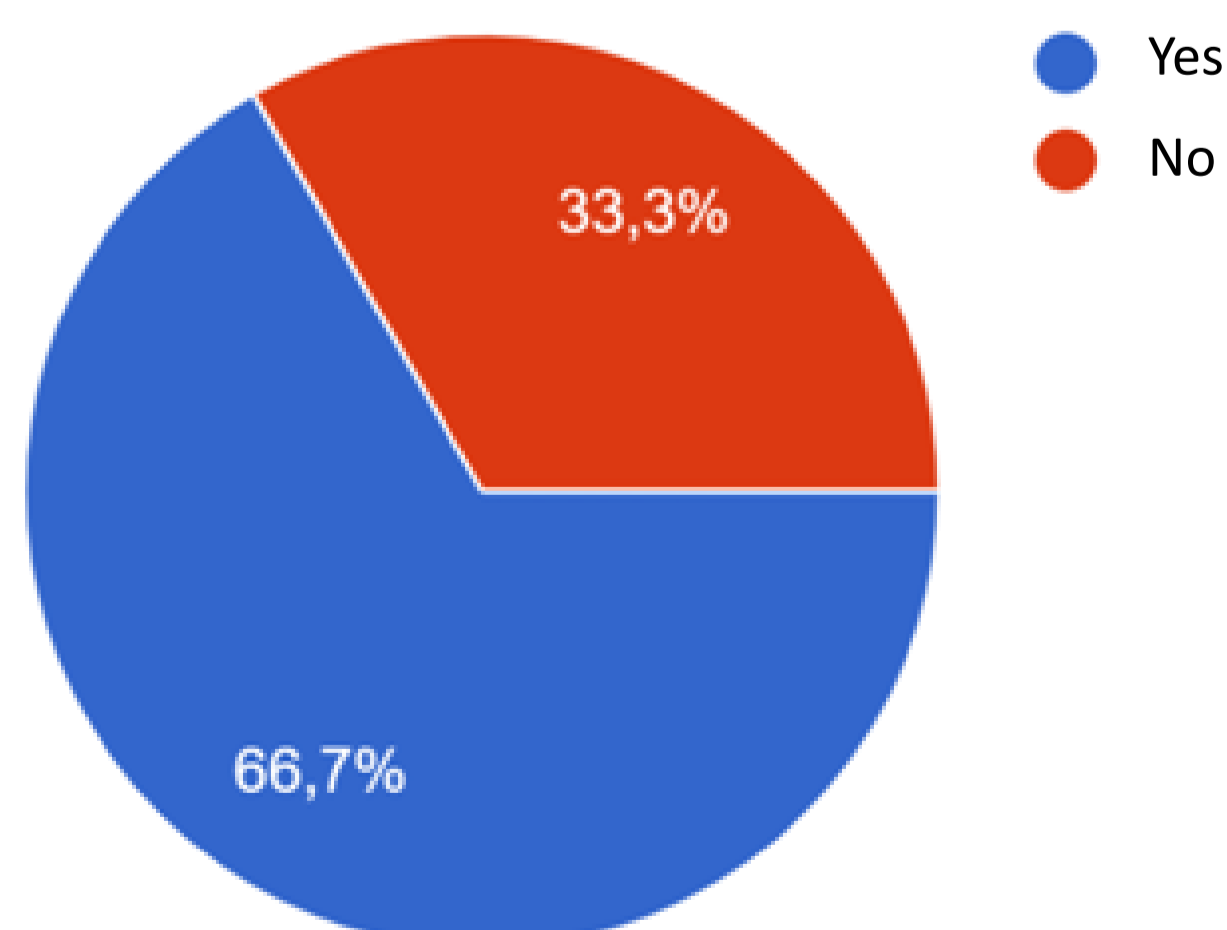


Figure 2: Results of questionnaire: »I know the adaptations that enable me to learn more successfully.«



### Common student responses:

- It is interesting.
- I enjoyed learning physics with the tablet/ computer.
- The text is written simply enough that I could understand it.
- It was difficult to keep the phone in a certain place.
- I miss problems with an explanation.



[1] UNESCO Institute for Information Technologies in Education, ICTs in Education for People with Special Needs. Specialized Training Course. Spec (Moscow: UNESCO Institute for Information Technologies in Education, Moscow, 2006.) <https://iite.unesco.org/pics/publications/en/files/3214644.pdf>  
 [2] G. Elia, A. Poce, Future Trends for "I-Learning" Experiences. In: Elia, G., Poce, A. (eds) Open Networked "I-Learning". Springer, Boston, MA (2010). [https://doi.org/10.1007/978-1-4419-6854-8\\_6](https://doi.org/10.1007/978-1-4419-6854-8_6)