Dofinansowane przez
Unię Europejską

PROPER

PROBABILITY AROUND US

PROBABILITY FOR EVERYONE

Quality Assurance Statement

PROPER
PROBABILITY AROUND US
PROBABILITY FOR EVERYONE

Co-funded by the European Union

PROPER
PROBABILITY AROUND US
PROBABILITY FOR EVERYONE

Project: PROPER – Probability around us – Probability for everyone
Ref no.: **2023-1-PL01-KA210-SCH-000164029**
Implementation period: 01.09.2023 – 30.09.2024

QUALITY ASSURANCE STATEMENT

AIMS AND OBJECTIVES OF THIS PROJECT

The project concerns the improvement of teaching probability calculus, also with the use of STEME (Science, Technology, Engineering, Mathematics, Entrepreneurship) methods for secondary school students. The project aims to develop, introduce to schools and evaluate the method shaping robability, which is practically absent in the current teaching in schools in Poland and Czech Republic (and many other European countries). Proposed probability input concept will be developed according to the constructivist method and active teaching methods and then it will be transferred to a higher level of mathematical education. Theoretical and didactic mathematical foundations of this approach are new. The theoretical description of the concept was published in the authors' monograph project from the applicant and executive institution - Pedagogical University of Cracow and South Bohemia University in Ceske Budejovice:
(1) Krech, I. & Tlusty, P.: Stochastic graph and its applications, Jihoceska univerzita v Ceskych Budejovicich, Ceske Budejovice 2012.
The project aims to develop educational materials based on the described teaching concept probability and practical verification of the effectiveness of the proposed methods on a small scale of partnership in schools in Poland and the Czech Republic. The project includes carrying out two main groups of activities, in achievieng the goals:
Activity 1: develop, introduce and evaluate a method for shaping the concept of stochastic graphs.
Activity 2: develop, introduce to schools and evaluate a method of shaping the concept of Probability based on an educational game based on the concept of stochastic graphs.
If our project will achieve didactical success, the next step will be to disseminate the method and the game, prepare an Android and/or iOS application to facilitate learning in a wider range of partnerships in school education - and thus horizontal addressing the goal of the continuation of the project: digital transformation through developing digital readiness, resilience and capability.

The **main results** of the **PROPER** project are:

- Designing and preparing the prototype sets of concrete models for teaching stochastic graphs and probability;
- Developing a method for teaching stochastic graphs and probability;
- Development of a training course for supporting teachers and educators to teach probabilty by stochastic graphs;

This approach is expected to contribute in:
The aim of the project refers to two target groups, teachers, and st
udents. (1) supporting

teachers and teaching professionals by providing methods that will help them in their everyday work (2) support students with mix ability knowledge by developing their key competences and provides inclusion in the learning process. More specifically, the project aims to the following concrete results:
- to develop innovative approach to teaching math
- to reduce disparities in learning outcomes affecting all learners, especially underachievers.
- to improve assessment of the key-competences (mathematics).
- to develop personal, social, and learning to learn competences in students.
- to enhance professional development of teachers involved in the process of education.

THE MAIN TARGET GROUPS OF THIS PROJECT
The aim of the project refers to two target groups, teachers, and students. (1) supporting teachers and teaching professionals by providing methods that will help them in their everyday work (2) support students with mix ability knowledge by developing their key competences and provides inclusion in the learning process.

BASIC INDICATORS OF SUCCESS:

At Project Management Level:
• Schedule performance index (budgeted cost of work performed/budgeted cost of work scheduled)
• Cost performance index (budgeted cost of work performed/actual cost of work performed)
• Number of meetings carried out (target 2 transnational meetings)
• Number of outputs submitted on time (Target 100%)
• Number of budget revisions (target 0)
• Number of reallocation of responsibilities (target <10%)

At Project Quality and Impact Level:
• Number of visits to the project's website. (>500)
• Reaction to Social Media communication.
• Number of views and downloads of the project's results in the project's website and content sharing platforms
• Number of conferences/events where PROPER is disseminated/advertised through newsletters (>=4)
• Number of information sessions for school staff to learn about the project (at least 4)
• Number of links (partner's website and other) - >=6
• Online questionnaires regarding the impact of using our digital resources in terms of digital literacy regarding school education;
• Online questionnaires for teachers / school directly involved in educational activities in school using our methodology regarding the impact on students;

THE FOLLOWING ACTIONS/ ELEMENTS OF THE DELIVERABLES ARE EXPECTED TO PROVIDE THE BASIS FOR SUSTAINABILITY, DISSEMINATION, EXPLOITATION

- Training course for supporting teachers and educators
- Webpage of the project and the partners
- Material to be produced in the form of a Booklet, leaflets, newsletters, etc.

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency (EACEA). Neither the European Union nor EACEA can be held responsible for them.

- Publications in various periodicals etc
- Seminars and other similar activities

QUALITY STATEMENT

We all undertake to cooperate with all the partners, abide by the rules and regulations specified or to be agreed in the meetings or set by the funding authorities. Furthermore, we undertake to work promptly in order to produce outcomes of high quality and standards.

We undertake to promote the above Statement.

University of the National Education Commission, Krakow	Poland	Ireneusz Krech
Jihoceska Universita v Ceskych Budejovicich	Czechia	Pavel Tlusty
Gymnazium Pierra de Coubertina,Tabor	Czechia	Eva Novotna
Zespół Szkół Technicznych i Placówek im. St. Staszica w Nowym Targu	Poland	Katarzyna Smosna

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency (EACEA). Neither the European Union nor EACEA can be held responsible for them.