

MATH-Labyrinth **as a method for increasing the level of knowledge** **through solving** **mathematical problems**

QUALITY ASSURANCE STATEMENT

AIMS AND OBJECTIVES OF THIS PROJECT

The **aim** of the MATH-Labyrinth project is to **increase the level of knowledge in Math of low-achieving students through solving mathematical problems.**

The **main objectives** of the MATH-Labyrinth project are:

- **Creation of an Interactive book with real-life mathematical problems.** This book will put the students in the centre of a situation and it will challenge them to begin solving problems and eventually reaching the solution. Through providing help at several stages, the book intends to increase the motivation and the students' understanding of the problem. At different stages students would be able to get additional hints in the form of pictures, presentations, videos etc. that will enable them to move forward in the "Labyrinth" and get out of it with a solved problem.
- **Creation of Guidelines for using the Interactive book** intended for teachers who will use this particular method of teaching in their classroom as curricular or extracurricular activity. It will provide the aims and objectives of the interactive book, the methodology of getting to the solution of all real-life mathematical problems in it, lesson plans and some useful links, resources and explanations on using different ICT tools.

This approach is expected to contribute in:

The approach will contribute to the process of teaching maths by giving a useful tool for the teachers to make their lessons and activities more interesting. It will also contribute in the process of motivating the students while being directly involved in the process of learning and increasing their self-satisfaction after completing stages.

More specifically the partners of the project aim at:

Deliver all the workpackages as described in the proposal and agreed during the first transnational meeting as they follow:

- **Workpackage 1:** Organize transnational meetings, prepare quarter, progress report and contribute to the completing of the final report
- **Workpackage 2:** Creating a data base with collection of good practices
- **Workpackage 3:** Developing the Interactive book
- **Workpackage 4:** Developing of Guidelines for using the Math-labyrinth interactive book
- **Workpackage 5:** Design of a web-site and platform
- **Workpackage 6:** Dissemination
- **Workpackage 7:** Evaluation and Quality assurance
- **Workpackage 8:** Exploitation plan

THE MAIN TARGET GROUPS OF THIS PROJECT

- Pupils of age between 14-18,
- Teachers teaching pupils of this age,
- Education policy makers and curricula experts,
- Teacher trainers

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 4 transnational meetings)
- Number of deliverables 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 events organized per partner (target 5 multiplier events)
- Number of visits of the project website (target >60/month)
- Number of stakeholders reached (target >1000)
- Number of students trained (target >150)

At Monitor and Evaluate performance Level:

- Number of students making use and accessing the platform (target >100);
- Number of institutions promoting and embracing the interactive book (target >100);
- Number of people that attended each multiplier event (target > 190);
- Number of risks with high, medium and low impact which the partners addressed (target <1-2);
- Number of risks the partners avoided through the implementation of preventive actions (target =100%);

OUT OF THIS PROJECT WE EXPECT THE FOLLOWING IMPACT / EUROPEAN ADDED VALUE ELEMENTS

Impact on students

- increased knowledge of mathematics with teaching and learning through the innovative approach;
- opportunity the student to learn math in an interactive manner with effective methods and techniques of work;
- increased motivation and greater understanding of mathematical problems solving;
- increased access to ICT, free software and open educational resources;
- increased access to the online platform with mathematical tasks, methods and interactive problem tasks that will facilitate the learning process;
- increased possibilities to communicate with other students from different countries through the online platform or Online classes in order to get additional information and/or custom programs, tools etc.
- increased level of digital competence, especially regarding OER and online platform;
- more positive attitude regarding school education and the role of education in the future career;

Impact on the participants

- improved competences in innovative approach to teaching math;

- improved competences of addressing low achievement in basic skills through more effective teaching methods;
- increased level of integrated the teaching of basic skills in maths, promoting problem-based learning;
- increased level of use of ICT-based methodologies for learning math and providing more attractive math education

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

- WebPages of the project and the partners
- Material to be produced in the form of Books, leaflets etc
- Publications in various periodicals etc
- Seminars and other similar activities
- Summer Mathematical Camps

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.

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