BROADENING THE HORIZON OF SCIENCE TEACHING AND LEARNING IN HUNGARY

Project summary

"Broadening the horizon of science teaching and learning in Hungary" aims to focus on creating an inclusive learning environment, hence increasing accessibility, parity and equity in science education, going beyond self-evident excellence in Hungary.

WHY?
"Broadening the horizon of science teaching and learning in Hungary" is needed as the Hungarian educational system is polarized, segmented and very selective. In science education, talent support has century-old traditions, but with a very segregating approach. This way, science education in Hungary loses a number of potential aspirants. This project aims to focus on creating an inclusive learning environment, hence increasing accessibility, parity and equity in science education, going beyond self-evident excellence.

WHAT?
The project has three strands.
(1) The first strand is **"Promotion of sociocultural inclusion – focusing on students",** which includes organizing regional science expos for students aged 13-19, inviting students to a science camp and supporting extracurricular student circles which have inclusive pedagogical approach.
(2) The second strand is **"Empowerment – focusing on teachers"**, which includes a campaign for teacher pairs or teams (in order to promote using international learning materials), organizing regional workshops (sharing experiences about working with inclusive extracurricular student circles) and a set of online training courses for teachers.
(3) The third strand is **"Networking – focusing on parents"**, which includes organizing interactive conference and roundtables with diverse stakeholder groups highlighting the role of diversity in STEM and organizing workshops at universities (for teacher-student, parent-student, teacher-parent teams).

WHO?
Hungarian Research Teachers' Association (http://www.kuttanar.hu) partners with teachers and parents to highlight the need for diversity in science learning in Hungary. Inclusive approach in science teaching is promoted by campaigns, workshops and online trainings. Students taste inquiry-based science learning in extracurricular student circles, and share experiences at science expos and camps. Networking with parents raises public awareness to sociocultural inclusion in science education.

WHEN?
The project started in February 2015 and will end in February 2016.

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WHERE?
Mainly in Hungarian schools and at partner universities and research intsitutes and partly in neighboring countries where HRTA has active members (such as in Serbia, Slovakia and Romania).

HOW?
The project is organized around three target groups influencing career orientation: students, teachers and partners.
Students will hopefully profit from participating in extracurricular students circles, then some of the will join a supportive peer community in the summer camp, while with others their efforts will get celebrated at the science expo.
Science teachers can profit from didactics and experience coming from both international projects and from the practice of more inclusive teaching in other subject fields. Therefore, teacher teams are encouraged to participate in a campaign adapting efficient teaching materials. Using them, teachers will run extracurricular student circles. Teachers will have learning opportunities at online courses and at workshops offering peer learning, networking and support. Inclusion will be strengthened by university workshops offered for teams including members from at least two of the three target groups.
Parents will get involved at public events, which establish open dialogues about the role of diversity in science education.
Tangible results include **a collection of teaching sequences** for extracurricular student circles, **online training materials**, **science camp and expo**, brochures and reports, available online. They will broaden the horizon of science education in Hungary, offering accessible programs and inviting all students to join.

OBJECTIVES
We expect to have an increase in the number of students participating in extracurricular activities, where they get a chance to engage in science inquiry and practice hands-on activities. Linked to this, we expect to have exemplars of didactically established extracurricular student circles with inclusive approaches, creating equal opportunities for students.
We also expect to have an exchange community of practicing teachers, who are motivated to adapt good examples and share knowledge about differentiation in science classes. (Measurable outcomes include the number of teachers visiting the platform and participating in e-courses, workshops or webinars (at least 180 teachers, which is 5% of secondary school teachers in Hungary).)
Finally, we expect to raise awareness to the value of diversity and to initiate collaboration for creating inclusive learning environments in science education. By better knowing typical career routes linked to science, we expect to identify intervention points to be touched upon in future projects.
As a future outcome of the above, we estimate that the number of students opting for science subjects in school-leaving exams will significantly grow in the next 5 years, and a higher number and a more diverse population of students will enter tertiary science education and choose careers related to science.

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