

STEM-CPD Ambassadors Summer school

Business Plan

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Authors:

Nataša Brouwer (University of Amsterdam, The Netherlands) Maria Noelia Faginas-Lago (ECTN, University of Perugia, Italy) Cristina Femoni (ECTN, University of Bologna, Italy) Iwona Maciejowska (Jagiellonian University, Krakow, Poland) Sanjiv Prashar (ECTN, Universidad Rey Juan Carlos, Madrid, Spain) Vincenzo Russo (University of Naples Federico II, Naples, Italy) Oreste Tarallo (University of Naples Federico II, Naples, Italy)

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The idea:

The necessity of STEM CPD Ambassadors Summer Schools arises from the simple consideration that, just as researchers or scientists invest time and energy to become "proficient" in their research field, as well as to learn how to run research, when the same persons take off the lab coat and step into the classroom for lecturing, needs to be trained in those special competences characterizing a teacher, as well. That is, in those competencies distinguishing the "teacher" form the "expert" of the discipline. In other words, if we want to be good lecturers, in addition to being good researchers, we must devote energy also to the development of our teaching skills. This assumption, obviously, requires a condition to be fulfilled: the lecturers have matured an awareness of the necessity of such training and are willing to abandon the old paradigm according to which "we teach the way we were taught".

STEM-CPD Ambassadors

Since the situation in Europe in this respect is very diverse, that is, there are countries, regions and universities where obtaining qualifications in teaching is the norm and easily accessible to every lecturer, and places where there is no such awareness or offer or it is very general, we propose the concept of *Ambassadors of Continuous Professional Development* at STEM faculties (STEM-CPD Ambassador).

STEM-CPD Ambassadors are, in detail, persons willing to spread effective teaching methods and innovative approaches in STEM disciplines by organizing STEM-CPD activities for their fellow lecturers in their home university. They have the mission of improving the quality of teaching and learning thus counteracting the professional burnout of lecturers. This is done by:

- promoting the importance of CPD in teaching and learning from a disciplinary perspective.
- defining needs and challenges in local context.
- organizing CPD activities for fellow lecturers at home institution.
- inspiring and motivating fellow lecturers.

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Since such activities require additional competences, we propose to organize training in the form of a condensed one-week summer school and to continue activities in the form of a community of graduates of this school, which will be known as the *STEM-CPD Ambassadors network*.

Promotion and facilitation of the CPD-Ambassadors may be done by:

- creating a community of evidence-based teaching and discipline based educational research
- sharing good practices
- organizing seminars / events to share knowledge about teaching and learning in higher education.

CPD landscape in Europe

The EHEA (European Higher Education Area) analysis shows that the CPD of university lecturers is well developed in the countries of Northern and Western Europe, and less so in Southern and Eastern Europe. Appropriate certificates of teaching qualification are offered in e.g., the Netherlands, UK, Scandinavian countries and some regions and federal states of Germany. On the other hand, the Recommendations of the EUA (European University Association), ESF (European Science Foundation), ENQA (the European Network for Quality Assurance in Higher Education), as well as the High Level Group on Modernization of Higher Education of the European Commission, published over the last 20 years, promote staff improvement and development programs and the inclusion of pedagogical innovations in the academic teaching-learning process.

There is a definite lack of such activities in Europe in an international context, allowing for the exchange of experiences by lecturers from different countries who are involved in improving the quality of education through CPD. Therefore, we propose the organization of an international summer school, which does not mean that its national or regional variations do not have a *raison d'être*.

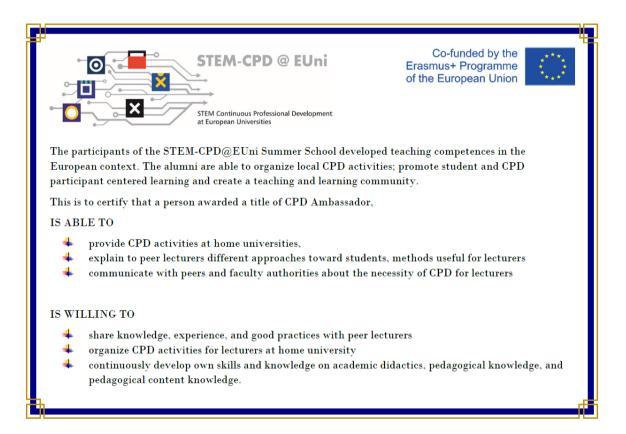
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Recognition

At the end of the school CPD-Ambassadors are awarded with a certificate that attests to, and embodies, their commitment and the work accomplished and achieved learning outcomes. An example of certificate is given below.



Methodology

The STEM-CPD schools are based on the philosophy of "train the trainer in co-creation", aiming to educate individuals who will, in turn, be able to support education of peers. This sets off a chain reaction, a cascading process, ensuring a wide dissemination of the active teaching methodologies and techniques beyond the time and physical limits of the summer schools, which in the long run will be seen as beneficial by the university authorities.

A second extremely important and distinctive methodological aspect of these schools is the fact that the educational themes and issues discussed within the framework of the summer

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school, even if of an extremely general nature, are reshaped according to the specific training needs of each participant.

At the summer school, the CPD-Ambassadors gain knowledge, receive relevant material but also produce their own material. Participants are asked to develop a so-called "user case", which, starting from an educational need characterizing the reality in which the lecturer or its institution is involved, suggests a solution, based on continuous professional development of university lecturers, and then implements it once the lecturer has returned to the respective university institution.

During the summer school, some activities are also organized in parallel sessions, allowing participants to autonomously build their preferred learning path. Each person follows the one that interests them the most, or that they think could be more useful for the type of CPD activity they plan to carry out in the local institution.

For project consortium - the main objective is to make STEM-CPD Summer Schools sustainable, after the end of the project. ECTN will oversee the continuance of the work developed in the STEM-CPD@EUni project through constant maintenance and support of the network of CPD Ambassadors. ECTN will promote the use of microMOOCs and user cases developed among the members institutions and beyond.¹

Target/participants

The school is addressed to STEM lecturers, the country of origin is irrelevant, but the ability to use English at a communicative level is important. The diversity of countries where participants come from, and thus their previous experience in CPD, is welcome. The same applies to the size of the university or its profile. Exposure of participants to new experiences of other people, different working conditions, different solutions is very helpful in the development of competences.

Academics participating in the "STEM-CPD summer schools" will be selected from the teaching staff according to the interest shown to become CPD-Ambassadors, share new knowledge and skills with peers and organize STEM-CPD activities at their institution.

Consideration should be given to the previous professional experience of school participants.

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¹ boxed text applies specifically to ECTN



People with longer work experience usually have greater and wider possibilities of influencing their peers, on the other hand, it is easier for younger people to convince themselves and their peers to undertake innovations. In addition, the mix of different age groups, which seems to be the most desirable, allows you to get to know different points of view.

The number of participants should be appropriate to the purpose, working conditions and the teaching and learning methods used. Too many (above 25) may make it difficult to use effective methods based on participant activity, discussion, work in small groups.

Marketing and recruitment process

Information about the STEM-CPD summer school should reach both lecturers and the authorities of STEM faculties directly. It is the faculty authorities that can be the driving force for introducing or improving CPD at local universities, and thus they can actively search for candidates for the summer school. For this purpose, the organizer's website, social media, social and professional networks, scientific and higher education conferences, professional journals, conference and training databases, mailing lists and websites of non-governmental organizations associating lecturers, scientists, university or faculty authorities and those concerning the quality of education can be used.

ECTN may use: its website, newsletter, mailing list, working groups and committee meetings, General Assembly, the CPD Ambassadors may promote next summer school in their local context (university, associations).

Content, objectives, timetable and requirements to participate in the training and summer schools will be published beforehand and lecturers can apply to attend. Applications can be submitted on the webpage portal or through local contact point (in the case of ECTN). The organizers will conduct a pre-selection process. The main elements of this will be based on the motivation to attend the summer school given by the applicant. The pre-screening ensures that potential participants are aware of specific objectives of STEM-CPD summer schools.

For participation, equal possibilities for all interested partners should be secured, including gender and disabled persons. All steps of the selection will be transparent and fair.

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Organization

Location:

The location of the summer school could vary from each edition. Organisers will select the specific location for each edition (in the ECTN case - among one of its member Universities. The location will be a chosen among the big European cities, to have easy flight connections for the participants. In alternative and more sustainable way - towns easily reachable by trains.

Offering participants accommodation in one hotel will help them break the ice, increase their activity and facilitate establishing relationships that will pay off in the development of the ambassador network and further cooperation.

It is worth considering organizing classes either within the confines of the university or within the walls of the hotel. The first option facilitates the use of university resources, showing lecture halls or the organization of student laboratories, design of the space used by students and lecturers, the work of Teaching and Learning Center units etc. The selected venue must have easy access to the internet for participants. For the summer school activities one lecture room and 2-3 rooms suitable for parallel group work are needed. The rooms should be equipped with: white board/flipchart, bimer, computer, photocopier, printer (badges, certificates, worksheets etc.). It is necessary to establish teaching and learning modules on an e-learning platform.

Period:

The date of the school should be carefully considered based on among others the conditions of the organizer. Summer school in the summer increases costs, summer school during the academic year may prevent the participation of lecturers with a large number of classes and other activities with students but off-season period enables lower costs and easy group bookings.

Duration:

The school should last 5-6 days to be able to use the dynamics of group work, give participants time to reflect on the concepts and solutions learned, and time to prepare and evaluate user cases.

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We propose to start the events on Sunday afternoon/evening, to optimize the time. It helps reduce the impact of participating in a school on the regular and institutional commitments at participants universities. That day is reserved for the registration and icebreaking/networking evening, which is an informal gathering to get to know each other, bond as a group, and interact with all the other participants in a friendly and relaxed atmosphere. This evening can also be used to clarify and share the goals of the school among all participants in an informal setting.

Teaching staff (trainers):

When selecting trainers, one should be guided not only by their knowledge, as is the case at scientific conferences, but also by the skills of conducting classes with academic staff, and classes with active methods. Trainers should also have experience in conducting classes in an international or multicultural environment. Trainers should meet before school starts to share school goals and principles. Part of the trainers could be chosen among the participants of the previous summer schools who have stood out for the number and quality of the CPD activities organized at their institutions.

Budget:

Income categories

- **Registration** fee •
- ECTN event co-funding of 20% up to a maximum of 2000 €
- European industries, as well as national and EU (chemical) societies may be contacted to support the STEM-CPD Summer School.

Participants may apply for Erasmus plus Staff Mobility for Training co-financing (or similar programmes). Organisers will support their efforts.

Costs categories

- the use lecture rooms,
- e-learning platform, website
- teaching staff (travel, accommodation, salary)

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- coffee breaks, welcome reception (you may asked participants to bring their national food to share during the first ice breaking event)
- management, technical and financial staff support,
- other costs: stationary, printing etc.

Costs for lunch, dinner, travel, and accommodation are up to the single participant. Social events may be organized, as excursions to local attractions and conference dinners. It supports development of good relationships between participants. These costs will be covered by the participants.

ECTN European Lecturer Academy working group will be responsible of the organization of summer school and for the definition of the scientific programme, that will be based on the outputs of the STEM-CPD@EUni project.

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