



2nd CPD-Ambassadors Summer School Evaluation Report.

STEM-CPD@EUni Intellectual Output 6.

Authors: Aleksandra Lis and Sanjiv Prashar

Contributors: All Partners

License: This work is licensed under a Creative Commons Attribution – Non Commercial 4.0 International License (CCBY-NC4.0). Please attribute the STEM-CPD@EUni project and the authors

30.08.2023

<http://ectn.eu/work-groups/stem-cpd/>

The European Commission's support for the production of this publication does not constitute an endorsement of the contents, which reflect the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.



STEM-CPD@EUni



Co-funded by the
Erasmus+ Programme
of the European Union

<http://ectn.eu/work-groups/stem-cpd/>

The European Commission's support for the production of this publication does not constitute an endorsement of the contents, which reflect the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.



Table of content

Table of content	3
2 nd CPD-Ambassadors Summer School short description	4
Evaluation plan for the event	5
User experience – feedback from participants	9
Feedback during the event	9
Feedback after the Summer School	10
Conclusions and recommendations	11
Appendices	13

<http://ectn.eu/work-groups/stem-cpd/>

The European Commission's support for the production of this publication does not constitute an endorsement of the contents, which reflect the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.



2nd CPD-Ambassadors Summer School short description

The 2nd CPD-Ambassadors Summer School of the Erasmus+ Project STEM-CPD@EUni took place in Naples from 1st to 7th October 2022 and was held by the Faculty of Chemistry of University of Naples Federico II. 18 Participants from 12 European universities in 8 countries (Latvia, Austria, Spain, Poland, Italy, Hungary, Portugal and Slovenia) took part in an intensive programme of 10 sessions (24 learning hours).

Applying the approach employed in the initial Summer School, the provided training encompassed both theoretical and practical components. After acquiring knowledge that enriched their personal TPACK - Technological Pedagogical Content Knowledge, participants were afforded the chance to perfect their skills by formulating user cases and collectively deliberating on them during the concluding sessions.

Participation in the School not only afforded the acquisition of knowledge and skills, but the event's design was meticulously crafted in order to additionally foster networking and facilitate the exchange of experiences. It further enabled attendees to juxtapose their circumstances and teaching-learning challenges across diverse universities in various European countries. This also allowed for the sharing of best practices, culminating in the attainment of certification as CPD-Ambassadors. These ambassadors are poised to spearhead innovation in teaching practices at their respective universities, thereby forming a cohesive community, which in turn, will establish an ever-expanding global network, facilitating the exchange of knowledge and experiences in the realm of Pedagogical Content Knowledge.

The continuous feedback from the participants also made it possible to effectively monitor their progress and to address any educational problems that may have arisen in a targeted manner. The stimulating learning environment was further enriched by off-school activities, such as visiting the laboratories and museum of the University and exploring downtown Naples. These activities not only strengthened the connections

<http://ectn.eu/work-groups/stem-cpd/>

The European Commission's support for the production of this publication does not constitute an endorsement of the contents, which reflect the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.



among the participants but also enhanced the formation of an effective community between them.

Evaluation plan for the event

The plan for evaluating the 2nd Summer School aimed to replicate the same evaluation methods and areas used in the 1st Summer School, but with adjustments based on insights gained from the first edition. Consequently, the evaluation of the second edition encompasses two layers of assessment. On one layer, we have re-evaluated the Summer School and CPD-Ambassadors according to the Evaluation Protocol.

According to STEM-CPD@EUni Evaluation Protocol, we decided to concentrate on four areas of evaluation.

1. Participant experiences
2. Participant learning success
3. Application of knowledge
4. Impact of CPD activities implemented by CPD-Ambassadors

On the second layer, this evaluation aimed to offer feedback to the organizers regarding the effectiveness of the feedback utilized for the first Summer School. Specifically, it sought to determine whether the second edition was better organized in relation to the weaknesses highlighted during the initial STEM-CPD@EUni Summer School for CPD-Ambassadors

The detailed aims of STEM-CPD@Euni evaluation remained as previously stated in the initial report:

- To enhance the TPACK (Technological Pedagogical Content Knowledge) competences of European university STEM lecturers who aspire to become CPD-Ambassadors. These ambassadors will subsequently return to their respective

<http://ectn.eu/work-groups/stem-cpd/>

The European Commission's support for the production of this publication does not constitute an endorsement of the contents, which reflect the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.



home universities to orchestrate STEM-CPD activities among their peers, thereby enhancing the quality of the courses.

- To equip these educators with the skills and tools necessary for the planning, promotion, organization, and evaluation of CPD activities.
- To establish an international Community of CPD Ambassadors, fostering a collaborative environment for continuous learning and sharing of best practices.

Furthermore, we have examined the areas requiring development that were highlighted by participants, trainers, and organizers of the first edition of the STEM-CPD Ambassadors Summer School, namely:

1. Avoid employing different sources for the same questionnaires, as this complicates the analysis process.
2. Pose only questions that yield relevant answers; refrain from inquiring about matters that won't contribute value to the event. Specifically, daily forms prove beneficial only if their responses can influence the restructuring of the program or organization for the subsequent day. If not, these queries can be reserved for the final questionnaire.
3. Refrain from overloading participants with excessive questionnaires; a surplus of surveys can lead to a reduction in the number of completed questionnaires.

We have once again chosen to collect evaluation data using a multiple-response approach. We obtained data that encompasses more than one response per participant, involving a limited number of straightforward questions. These include pre- and post-school forms, as well as daily forms completed during the event.

Both pre- and post-school forms are included as appendices in this report. The statistical report for these forms was generated automatically by the online software we employed (Microsoft Forms). However, we have opted not to include the daily form. This decision was made because it replicated the previous year's forms exactly, and the

<http://ectn.eu/work-groups/stem-cpd/>

The European Commission's support for the production of this publication does not constitute an endorsement of the contents, which reflect the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.



results were primarily useful for the day-to-day management of the event, rather than for a broader perspective.

The first change we proposed after the initial evaluation cycle was the discontinuation of paper versions for the questionnaires. This shift was driven by two main reasons. Firstly, it proved to be less efficient from an organizational standpoint. In an era where nearly everyone possesses a mobile device with internet connectivity, a QR code leading to a quick online survey appeared far more user-friendly than traditional paper forms. Secondly, analyzing online questionnaires was significantly easier for us. The software was designed for conducting analyses, eliminating the need for additional efforts to consolidate data. This alternative was more conducive to streamlining the process and saved time that would have otherwise been required for post-evaluation data analysis.

In contrast to the previous edition, we have also made alterations to the evaluation questions, particularly in the final phase for the awarded CPD-Ambassadors. We observed that the previous questions lacked clarity, leading to responses that were more confusing than providing relevant and useful information.

We utilized the comprehensive evaluation question set from the first cycle, together with their corresponding indicators and data collection strategy. The only minor change was in how we translated these evaluation questions into the queries directed at the participants. This adaptation is shown in Table 1 and the questionnaires included in the Appendices.

Another change from the first STEM-CPD Summer School is the method of awarding certificates to participants. In contrast to the initial Summer School, Ambassadors received their certificates immediately on finishing the School. Previously, certificates were issued several months after the event had concluded. This approach proved to be ineffective for several reasons. Firstly, communication with participants over that extended period was challenging, particularly when they had fulfilled all responsibilities related to their User Cases. Secondly, the event held less appeal for participants when it did not culminate in recognition of fulfilment in the form of a certificate at the end of a busy week. Consequently, in the current iteration, CPD-Ambassadors were presented

<http://ectn.eu/work-groups/stem-cpd/>



with their awards during the summer school. The certificates were granted based on the evaluation of their competence, aligned with the supporting evidence produced during the summer school.

<http://ectn.eu/work-groups/stem-cpd/>

The European Commission's support for the production of this publication does not constitute an endorsement of the contents, which reflect the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.



Table 1 Evaluation questions

EVALUATION PROTOCOL: List of questions				
No.	EVALUATION QUESTION	INDICATORS	Tools	Questions asked to the participants
1.	How efficiently was a summer school for CPD Ambassador organized? (O5 evaluation)	<ol style="list-style-type: none"> 1. Participation (%) 2. Dropout 3. Participant satisfaction 4. Relevance of covered topics 	Questionnaire (in person / online) Attendance Lists (in person / online)	<ul style="list-style-type: none"> ● Do you feel more confident about your teaching skills? ● To what extent do you think the summer school will affect your daily practice as an academic teacher? In which way? ● Content: to what extent was it new? Versatile? Relevant? What was new for you? ● How do you think it could be applicable the gained knowledge and skills to your teaching practice? ● To what extent do you think the summer school will affect your daily practice <u>as a member of your faculty teaching staff community</u>? ● Do you feel prepared to be a CPD-Ambassador at your institution after the summer school? ● Did you establish any valuable contacts? ● Do you think there was enough interaction with other colleagues? ● Would you recommend your colleagues to participate in such summer school? Why? ● How do you rate the access to teaching and learning material? ● Rate the general organization of the school. ● Rate the technical organization of the school. ● What may be improved in any dimension of the summer school? (e.g., organizational, technical, social, content, etc.)

<http://ectn.eu/work-groups/stem-cpd/>



				<ul style="list-style-type: none"> ● Indicate your average attendance of the school. Number of sessions attended. ● What is your main take-home message after attending the school?
2.	What is the level of learning success of Summer school Participants?	Number of certificates issued	IO 5 and IO 6 collected data Reflective diary Report of given actions (e.g., MOOC creation)	<ul style="list-style-type: none"> ● What are the CPD activities you would like to organize at your home institution? ● To what extent have you developed a CPD user case to be used at your home university? ● With whom do you plan to work in cooperation? ● To what extent have you got/developed an idea about how to measure the impact of the CPD activities? ● What CPD activities have you proposed to your colleagues? ● Have you cooperated with other European lecturers on CPD activities after the summer school? ● How many times have you contacted people that you met at the Summer School in the last 6 months?



User experience – feedback from participants

User experience constitutes one of the four elements analyzed within the evaluation process. This aspect was particularly pivotal for the project consortium, especially leading up to the second edition of the Summer School, as our aim was to deliver an even better event for participants the second time around. Furthermore, its significance was heightened by the assurance of sustainability for the Summer Schools by one of the project's partners – ECTN. Despite the introduction of new editions, collecting comprehensive feedback on the organization remained of utmost importance.

Conversely, we acknowledged that, at least to a certain extent (especially in the daily evaluation segment), feedback on the experience is a pivotal component not only for preparing subsequent editions but also for the ongoing event.

Consequently, we meticulously gauged participants' impressions of the event through various stages. Initially, we inquired about their expectations at the commencement of the Summer School (see Appendix 1, First Day Form). Subsequently, we sought their opinions once again immediately upon the conclusion of the school. Secondly, we elicited participants' views on the pace of the school and whether they found it engaging on a daily basis (see Appendix 2, Daily Form), utilizing a "thermometer" and "speedometer" framework. Finally, about six months after the school concluded, we engaged participants to gain insight into their long-term perspective. In summary, we adhered to the exact same procedure as employed during the first summer school.

Feedback during the event

The daily evaluation forms demonstrated significantly improved efficacy in this cycle compared to the previous summer school. Firstly, there was a noticeable increase in the number of participants providing feedback. A well-defined procedure was introduced from the very first day. QR codes and links were presented during the workshop sessions, and participants received an email reminder later in the evening, prompting them to complete the questionnaires. Consequently, this led to a remarkably high daily

<http://ectn.eu/work-groups/stem-cpd/>



response rate which varied from 67% (12 out of 18 participants) to 100%. This was a substantial improvement from the previous year when we sometimes managed to receive only 6 answers per day.

The daily questionnaire incorporated a speedometer and thermometer for course assessment, alongside a space for comments. To delve deeper into organizational aspects, a 5-point scale question evaluating the day's organization was included. To summarize, the majority of participants expressed satisfaction with both the workshop's pace (speedometer) and the covered topics (thermometer). The average ratings for organization were consistently high, surpassing 4.5 every day.

However, what stood out in comparison were the comments. Despite no scores below four in the comments section, these remarks were highly informative. They highlighted concerns such as confusion between workshops or inadequate clarity regarding assignments. These comments provided invaluable insights, enabling the organizing team and trainers to enhance their performance the following day, which was evident in the subsequent daily form comments section.

Feedback after the Summer School

Much like the first cycle, the pre- and post-school questionnaires serve two purposes: evaluating expectations and self-assessing in relation to the Summer School's learning outcomes. Our success in obtaining responses also improved compared to the first edition. Both questionnaires were completed and submitted by over 70% of participants. However, there is still room for further improvement.

In both editions of the Summer School, participants had similar expectations and these were adequately met.

Expectations

- The majority of participants anticipated acquiring new knowledge and skills, discovering the latest ideas and practices in the field of academic teaching, and establishing international networking connections.

<http://ectn.eu/work-groups/stem-cpd/>

The European Commission's support for the production of this publication does not constitute an endorsement of the contents, which reflect the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.



- High expectations were also held for the event itself, anticipating it to be a new standard of quality for academic gatherings.

The school met the expectations of most participants, with only one person rating the fulfillment of expectations as 2 out of 4, which indicates a negative assessment. We used a 4-point scale for this question, where 2 indicated "partly did not fulfill my expectations." Additionally, one participant rated the Naples Summer School as 3 out of 4, indicating a positive assessment with all other participants gave a rating of 4 out of 4, representing "definitely fulfilled."

The second part consisted of participants' self-assessment of their abilities in relation to the intended learning outcomes of the Summer School. The overwhelming majority of participants assessed themselves more positively after the Summer School. Furthermore, we inquired about their perception of the impact of their participation in the event on their self-assessment. Here, we employed a 5-point scale for assessment, with the average rating being 4.42. Out of the 12 participants who responded, 9 assessed the impact as positive, indicating it was "definitely increasing" for 6 people and "increasing" for 5 people. Only one participant did not perceive any impact on their competences. No participant indicated that the Summer School had a decreasing impact on their competences related to the intended learning outcomes.

We also included a separate section for organizational issues. After organizing the first Summer School, we recognized the value in distinguishing between the quality of the workshops/Summer School as an event and the quality of organization.

Conclusions and recommendations

In comparison to the previous edition of the Summer School, we implemented adjustments in both the organization and evaluation of the event. These have proven to be accurate and beneficial throughout the STEM-CPD@Euni project's duration.

1. The school fulfilled the expectations of the vast majority of participants.

<http://ectn.eu/work-groups/stem-cpd/>

The European Commission's support for the production of this publication does not constitute an endorsement of the contents, which reflect the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.



2. The offered program was engaging for most participants; however, it could be made more challenging to enable them to expand their knowledge (improving self-assessment).
3. Participants valued the offered experience the most.
4. Organizational issues should be documented and discussed with the organizing team for the second school.
5. Extended evaluation is most effective when comprehensively completed; adjustments are needed, particularly in terms of reaching participants who haven't submitted their evaluation forms.

<http://ectn.eu/work-groups/stem-cpd/>

The European Commission's support for the production of this publication does not constitute an endorsement of the contents, which reflect the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.