



STEM CPD Evaluation Recommendations

STEM-CPD@EUni Intellectual Output 6

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Evaluation is an indispensable component of every planned training activity. As we constructed CPD activities for STEM lecturers, we developed a comprehensive process founded on the five-step ADDIE model, which includes the fifth step: evaluation (Molenda, 2015). Thus, right from the outset, we pondered objectives, learning outcomes, and indicators, as well as the information sources required for thorough evaluation. The fruits of our labour are accessible to the wider public in the form of an Evaluation Protocol. We recommend crafting such a document in conjunction with the activity plan, as it facilitates viewing the process holistically and offers a clear path for what and how to evaluate over time.

Every CPD activity proposed within the STEM-CPD@EUni project was executed at least twice. We believed that we could learn from our own experiences. By employing evaluation tools, we learned lessons from our initial attempts and subsequently improved. Thus, all activities (user cases, mMOOCs and Summer Schools) were repeated at least once. Although encompassed within holistic evaluation, it is important to tailor the evaluation approach to the unique nature of the training events (Carlsen et al., 2000).

We adhered to Yin's (1992) approach, which meticulously outlines the case study method for research and also suggests its applicability for evaluation purposes. This case study method provided insights into what strategies, approaches and techniques were effective, and what required redesign. This approach proved particularly beneficial for Summer Schools, and since this is a sustainable initiative, these insights carried forward to the second edition, enabled us to enhance the planning of the third Summer School. Careful consideration of the initial event allowed us to identify strengths and weaknesses on organizational, educational, and networking dimensions. These insights were deliberated within the Consortium and led to adjustments being introduced.

In conclusion, through hands-on experience, we have acquired the knowledge of how to design, organize and evaluate CPD activities for STEM lecturers. The lessons learned

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from CPD activity evaluation, intended to be valuable when preparing CPD activities not only within the STEM domain but also beyond are given below:

RECOMMENDATIONS:

1. Include evaluation as an internal part of CPD activities.
2. Plan evaluation at the same time with CPD activities.
3. Keep the tools (questionnaires, interviews, surveys etc.) as short as possible.
4. Ask only about things you need to evaluate
5. Use all the information you have asked for.
6. Do not confuse evaluation of the activity with assessment of participants' performance.
7. Use case studies as a method to evaluate the activity / event and learn lessons from this.

Continuous Professional Development for lecturers is an intricate process that needs precise design and execution. Throughout the STEM-CPD@EUni Erasmus+ Project, we have meticulously developed every step along this path: from scrutinizing lecturers' teaching skill requirements to evaluating CPD activities. The outcomes of our endeavours, which will contribute to enhancing CPD initiatives for STEM and other university educators, are accessible on our website.

Roadmap to STEM-CPD <https://ectn.eu/work-groups/stem-cpd-o1/>

Framework <https://ectn.eu/work-groups/stem-cpd-o2/>

User Cases and Scenarios <https://starfish-education.eu/>

Templates for mMOOCs <https://ectn.eu/work-groups/stem-cpd-o4/>

mMOOCs <https://ectnmoocs.eu/>

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

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Evaluation Protocol https://ectn.eu/wp-content/uploads/2021/06/Evaluation-Protocol_general-document_30.06.2021.pdf

References:

Carlsen, J., Getz, D., & Soutar, G. (2000). Event evaluation research. *Event management*, 6(4), 247-257.

Molenda, M. (2015). In search of the elusive ADDIE model. *Performance improvement*, 54(2), 40-42.

Yin, R. K. (1992). The case study method as a tool for doing evaluation. *Current sociology*, 40(1), 121-137.

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