IO2 DaLiCo TRAIN-THE-TRAINER PROGRAMME

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IO2 DaLiCo Train-the-Trainer program

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ABSTRACT
This result description introduces the DaLiCo Train the Trainer program in the field of data literacy. It consists of a methodological framework which is built up in a modular structure in an e-learning environment. The e-learning course is supplemented by an online handbook which provides tools to enhance the methodological framework of the trainings.

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LICENCE

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Introduction

As outlined in the DaLiCo project proposal IO2 aims at developing a Train-the-Trainer-programme (TtT) in the subject field of Data Literacy (DL).

The <u>train-the-trainer model</u> provides an effective method to equip researchers and subject matter experts with new knowledge on how to teach others and how to improve their skills. The main focus of the programme is to train experts who can transfer Data Literacy skills and knowledge to colleagues and students. This training strategy has benefits on several levels: (1) advance changes in the field of data management by focusing on new desired skills, and (2) help transfer the domain-specific knowledge from experienced researchers to newer ones.

The Train-the-Trainer model favours workshops that target quick and effective methods to transfer content and knowledge. Therefore, the methodological framework of such workshop is essential to advance productive knowledge transfer. The TtT programme is supplemented by an online handbook which provides tools to enhance the methodological framework of the trainings.

Development of the Output

The IO2 results have been developed in relation to other IOs in the DaLiCo project. The IO2 activities were organized through particular tasks focusing on the individual elements of the IO results. Overall, the original idea was to create a training programme within the context of the project to ensure the transfer of results in a sustainable way. The choice of a TtT setup was preferred for several reasons: (1) we can reach a wider group with data literacy issues, since the trainings will ensure further trainings in this topic, (2) there is also a focus on methodology, since the TtT events aim at developing knowledge in DL just as much as developing skills on how to transfer this knowledge.

Task 1 centred around the content of the Train-the-Trainer programme. The conceptual basis was provided by IO1 where the Data Literacy Knowledge Map was created. The research results in IO1 showed which aspects of Data Literacy should be focused on in other IOs. Based on the research results some of the main issues we decided to focus on are data management, data sharing and data ethics.

Research data management questions gained preference in our working group since this is one important context of Data Literacy which is prevalent in academia. The TtT model works well for this community, since up-to-date data management skills are indispensable in their work (as represented in the research data management life cycle), a wide range of researchers can be reached with this method.
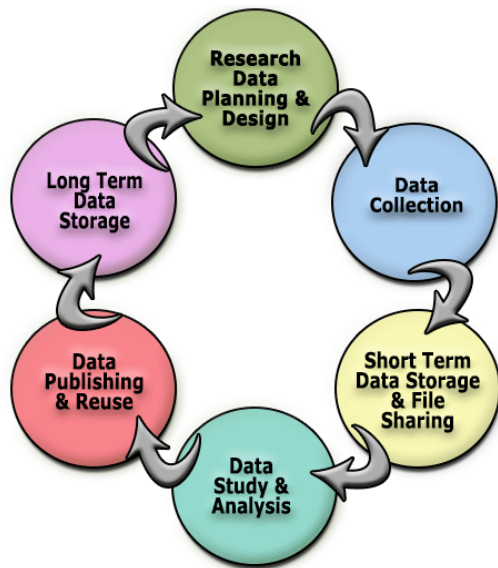
Figure 1: Research Data Management Life Cycle (Source: Brandeis University 2022)

The content development was primarily channelled into the online TtT Handbook. The main topics for the Handbook were defined in relation to DL as following: data management (FAIR data, data management plan development), data sharing (data publishing, data journals, repositories), data ethics (reproducible research principles), data visualization tools and methods.

Figure 2: Screenshot TtT Handbook (Source: https://openscience.hu/dalico-train-the-trainers-handbook/)

Task 2 focused on the methodological aspects of a Train-the-Trainer programme. Training is critical in research data management. On the one hand, it is crucial to introduce new knowledge in this topic to the new generation of researchers, on the other hand, there is always need to develop new data management skills and competencies among researchers in general. When creating a training event, it is essential to consider what works best for the learners. There are different learning styles for different people. Depending on the topic and the target audience there are several methods trainers can choose from (visual focus, hands-on experiences, instructional guidance, etc.). In IO2 we developed content which describes the various learning styles for adult learners.

The material is built up in a modular structure in an e-learning environment. The online training format has several benefits:

(1) it gives participants the freedom to access the material easily,

(2) it does not necessarily require a physical classroom, trainings can be organized in a virtual environment, and

(3) this material is scalable.

The modular format also helps the trainers to focus on materials which are relevant for their training objectives.

The IO2 e-learning course provides a roadmap for users to navigate the content easier and connect the modules into a coherent structure.

Figure 3: Roadmap of the Train-the-Trainer Programme

Task 3 aimed at piloting the materials in development. Research data management skills have been an important part of Data Literacy trainings. Through the HUNOR (Hungarian Open Repositories)[1] working group organized a training session for Hungarian university library staff to transfer knowledge on data management skills and the know-how, methodologies to reach out to researchers within their universities. At the end of the Train the Trainers event, the participating librarians were enriched with knowledge that they can use every day in their research support tasks, as well as a toolkit with which they can further train future librarians.

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[1] https://openscience.hu/hunor/

The aim of the organizers was to put together a course that would enable interested parties to explain the life cycle of data management and recommend appropriate tools for each stage, thus providing professional assistance to researchers.

In addition, learn about the FAIR principles and support researchers in complying with the guidelines. The FAIR part of the training started with the basics, the participants were introduced to a tool, with the help of which they can determine the degree to which data management complies with the FAIR principles of a given data set. This event provided an opportunity to test the chosen training methods and to collect feedback on the research data management content we developed in IO2.

from	to	duration	Topic	Tools
10:00	10:05	0:05	Introduction, Jamboard	Teams
10:05	10:10	0:05	Icebreaker	Menti
10:10	10:20	0:10	Presentation: DMP	ppt
10:20	10:30	0:10	ARGOS DMP tool	betató
10:30	10:45	0:15	Task1: DMP creation OTKA	csoportszoba
10:45	10:50	0:05	Group discussion	
10:50	10:55	0:05	Task2: H2020	
10:55	11:05	0:10	Group discussion	screen sharing, ppt minimálba
11:05	11:15	0:10	Licenses, LCT	ppt
11:15	11:25	0:10	Task3: LCT	
11:25	11:30	0:05	Group discussion	ppt

Figure 4: Schedule of TtT-Event

Task 4 was planned to collect best practices for the materials in development. These examples could have been the basis for a document called Teacher's notes. Besides the best practices, these notes provide examples for the utilization of the Handbook or the e-learning course. However, the course of the material development changed based on feedback from participants in the pilot training sessions. Instead of creating a separate document for best practices, we incorporated them into the Handbook and online course material.

The roadmap in the e-learning course informs the users on how to effectively use the course material and how to connect the modules for effective training development. The Handbook contains video recordings from the DaLiCo Summer School in 2022 to show practical implementations of the Handbook content (see figure 5).

Figure 5: Video recording from Summer School 2022

Task 5 In order to assess the development of the IO2 results, the materials (Handbook and e-learning course content) were tested during the DaLiCo Summer School 2022. Although the School was organized online which allowed a limited use of methods during the event, we definitely had the chance to see which aspects of the content were well received by the participants, and what kind of tools worked best in this environment.

Usage, Impact, Dissemination

Both the Handbook and the e-learning course are openly available:
https://openscience.hu/dalico-train-the-trainers-handbook/
https://elearning.unideb.hu/course/view.php?id=17996

The e-learning course is planned to be used in further summer school events. The feedbacks from the DaLiCo Summer School 2022 identified the demand for trainings in research data management among early career researchers and PhD students in English. Thus, there is a plan to target international students with such trainings at the University of Debrecen.

In order to advance the sustainability of the project results, the e-learning course will be transferred to the EdX platform under the curation of our partner at the University of Valencia. For the partner universities, the results will provide valuable impulses for training offers. At HAW Hamburg, it will be integrated as an input for a regional follow-up project **2**.

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[2] https://www.hcds.uni-hamburg.de/news/20221114-dako-nord.html

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