Report 4th STEM-CPD Summer School

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Dates summer school: 7th – 11th October 2024

Location: University of Palermo, Palazzo Chiaramonte (Rector's building and museum), Piazza Marina, 61, 90133 Palermo, Sicily, Italy

Website: https://ectn.eu/summer-school/

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1. Organisation 4th STEM-CPD Summer School

Organizing Committee: Dr. Renato Lombardo (University of Palermo, Italy) chair of the organizing committee, Prof. Luisa Amenta (University of Palermo, Italy), Dr. Natasa Brouwer (University of Amsterdam, The Netherlands), Francesca De Vita (University of Palermo, Italy), Dr. Nineta Hrastelj (ECTN), Prof. Iwona Maciejowska (Jagiellonian University in Krakow, Poland), Prof. Antonella Maria Maggio (University of Palermo, Italy), Dr. Elisabetta Oddo (University of Palermo, Italy), Prof. Sanjiv Prashar (University Rey Juan Carlos, Madrid, Spain), Dr. Marjan Veber (ECTN)

Teaching staff: Natasa Brouwer (University of Amsterdam, The Netherlands), Brit Giesbertz (University of Amsterdam, The Netherlands), Iwona Maciejowska (Jagiellonian University in Krakow, Poland), Matti Niemelä (University of Oulu, Finland), Nuccio Scialdone (University of Palermo, Italy), Elisabetta Oddo (University of Palermo, Italy)

The 4th STEM-CPD Summer School was organized by the ECTN Working Group Eurolecturer Academy in collaboration with the local organizing institution, the University of Palermo in Palermo, Italy. The summer school took place in two beautiful meeting rooms in the Palazzo Chiaramonte (Rector's building and museum, photos 1 and 2) in the historical center of Palermo. Nineteen participants from ten different Higher Education institutions in six countries across two continents took part in the intensive program of the summer school under the guidance of experts in continuous professional development (CPD) and became CPD Ambassadors. The role of CPD Ambassadors is to share knowledge and experience in education by promoting, motivating, and organizing CPD activities for lecturers in their local institutions and, based on such activities, become members of a larger international STEM-CPD community.

The organization and support by the University of Palermo were excellent. The 4th STEM-CPD Summer School started on Monday evening, October 7, with the Icebreaking and networking event (photos 3, 4 and 5) and concluded on Friday afternoon October 11 with the presentations of the CPD User cases by the participants and the CPD-Ambassadors certificates ceremony. On Thursday afternoon, there was an excursion to the famous Botanical Garden of Palermo, and the STEM-CPD Summer School social dinner in a restaurant with traditional local food in the historical city center of Palermo.

Image: Photo 1, 2: Summer School venue Palazzo Chiaramonte (photo left), entrance with formal church at the back where the Icebreaking and networking event and the parallel sessions took place (photo right).

Image: Photos 3, 4, 5: Icebreaking and networking event in the formal church on October 7th 2024

Dr. Renato Lombardo opened the 4th STEM-CPD Summer school and introduced the Vice-Rector of the University of Palermo Prof. Luisa Amenta welcomed the participants of the summer school in the opening ceremony on Tuesday morning, October 8.

Image: Photo 6, Opening by Dr. Renato Lombardo

Image: Photo 7, 8: Vice Rector University of Palermo Prof. Luisa Amenta welcomed the participants of the summer school

2. Programme and working approach

The approach of the 4th STEM-CPD Summer School was collaborative learning and co-creation. The summer school had 12 sessions that covered different topics in education: challenges in teaching and learning in higher education (session 1), designing CPD user cases and active learning (sessions 2 and 3), peer-mentoring (session 4), constructivism and inquiry learning (session 5.1 (parallel session)), hybrid teaching (session 5.2 (parallel session)), inclusive education (session 6), competence model and TPACK (session 7), constructive alignment in CPD (session 8.1 (parallel session)), motivation (session 8.2 (parallel session)), collaborative teaching and collaborate CPD activities (session 9), presentation CPD-User cases (session 10.1 and 10.2), and reflection (session 11) and the twelfth session was a hands on session given every day that was dedicated for working on the CPD-User cases. (Image: detailed programme of the Summer School)

Programme 4th STEM-CPD Summer School in Palermo, 7-11 October 2024

Monday, 7th October				
18^{00}–19^{00}	**Registration**			
19^{00}–21^{00}		*Ice-breaking and networking event. Introduction to the school. (snacks and drinks included)*		
Tuesday, 8th October				
8^{30}–9^{00}	**Walk in**			
9^{00}–9^{15}		*Greeting by University of Palermo*		
9^{15}–10^{30}		*Session 1*	*Challenges in Teaching and Learning in HE*	Natasa Brouwer
10^{30}–11^{00}	**Coffee break**			
11^{00}–12^{30}		*Session 2*	*Designing courses / CPD using ADDIE approach*	Natasa Brouwer
12^{30}–13^{30}	**Lunch break**			
13^{30}–15^{00}		*Session 3.1*	*Previous experience about CPD; pros and cons of different activities*	Matti Niemelä
15^{00}–15^{30}	**Coffee break**			
15^{30}–17^{00}		*Session 3.2*	*How to design user cases? Examples from the CPD Ambassadors*	Matti Niemelä
17^{00}–18^{00}		*Hands on developing User cases*		Matti Niemelä & Natasa Brouwer
Wednesday, 9th October				
9^{00}–10^{30}		*Session 4*	*Peer-mentoring*	Nuccio Scialdone & Elisabetta Oddo
10^{30}–11^{00}	**Coffee break**			
11^{00} - 11^{15}	*DISTINCT project: Digitalisation to adjust to the post-COVID reality*			Mariafrancesca Fochi
11^{15}–12^{45}	**Parallel sessions**	*Session 5.1* *Session 5.2*	*Constructivism and Inquiry-Based STEM Education* *Hybrid Teaching, Learning, Assessment and CPD: Why and How? (DISTINCT project)*	Iwona Maciejowska Mariafrancesca Fochi
12^{45}–13^{45}	**Lunch break**			
13^{45}–15^{15}		*Session 6*	*Inclusive education - Step into other people's shoes*	Brit Giesbertz
15^{15}–15^{45}	**Coffee break**			
15^{45}–17^{15}		*Session 7*	*Competence model (TPACK) and development of personal career*	Iwona Maciejowska
17^{15}–18^{00}		*Hands on developing User cases*		Matti Niemelä & Natasa Brouwer

Thursday, 10th October				
9⁰⁰–10³⁰	**Parallel sessions**	*Session 8.1* *Session 8.2*	*Constructive alignment in teaching and learning students and CPD* *Motivate your students, your colleagues and yourself*	Brit Giesbertz & Natasa Brouwer Iwona Maciejowska
10³⁰–11⁰⁰	**Coffee break**			
11⁰⁰–12³⁰		*Session 9*	*Collaborative teaching and learning and CPD activities*	Iwona Maciejowska & Brit Giesbertz
12³⁰–13³⁰	**Lunch break**			
13³⁰–14³⁰		*Hands on developing User cases*		Matti Niemelä & Natasa Brouwer
14³⁰–22⁰⁰		***Community building excursion and STEM-CPD Summer School Dinner***		

Friday, 11th October				
9⁰⁰–10³⁰		*Hands on finalizing work on User cases*		Matti Niemelä & Natasa Brouwer
10³⁰–11⁰⁰	**Coffee break**			
11⁰⁰–12³⁰		*Session 10.1*	*Presentations CPD User cases, discussion, evaluation (Part 1) (parallel groups)*	
12³⁰–13³⁰	**Lunch break**			
13³⁰–15⁰⁰		*Session 10.2*	*Presentations CPD User cases, discussion, evaluation (Part 2) (parallel groups)*	
15⁰⁰–15³⁰	**Coffee break**			
15³⁰–16³⁰		*Session 11*	*Reflection and Certificate ceremony*	
16³⁰	**Closing of 4th STEM-CPD Summer School**			

Image: Detailed programme 4th STEM-CPD Summer School

During the summer school sessions, the participants mostly worked in small groups. Each participant developed their own CPD-user case, designed to tackle identified challenges related to teaching and learning in STEM disciplines at their home institution and to develop possible solutions including development of necessary CPD activities. During the daily hands on sessions dedicated for working on the CPD-User cases the progress on the CPD-User cases was discussed and personal feedback was given.

Session 4 Peer-mentoring was given by University of Palermo. In this interactive session Elisabetta Oddo and Nuccio Scialdone shared the local experiences on this topic.

Two sessions of the summer school were organized as parallel sessions to give the participants the opportunity to focus on for them most relevant topics or enrich their knowledge in specific fields.
The parallel session 5.2 was organized by the DITINCT project (https://ectn.eu/work-groups/distinct/). In this session Prof. Mariafrancesca Fochi gave the participants opportunity to learn about the tools that can be used in hybrid teaching in higher chemistry education, and she shared the knowledge and experiences about it obtained in the 3 years long international Erasmus+ project where ECTN was one of the partners.

A short introduction about the DISTINCT project was given to all participants also with the aim to help the participants to make a choice which of the parallel sessions to follow.

Image: Photo 9, 10: Session 4 on Peer-feedback in CPD by Elisabetta Oddo and Nuccio Scialdone

Image: Photo 11, 12: Session 5.2 Prof. Mariafrancesca Fochi (University of Bologna), DISTINCT project

Image: Photo 13, 14: Group work during the sessions

In Session 6: “Inclusive education - Step into other people’s shoes”, given by Brit Giesbertz special attention was given to the inclusive continuous professional development in teaching and learning in higher education.

Image: Photo 15: Session 6 “Inclusive education - Step into other people’s shoes” given by Brit Giesbertz

Image: Photo 16, 17: Session 7: “Competence model (TPACK) and development of personal career” given by Iwona Maciejowska

Image: Photo 18, 19: Session 7: groups playing the TPACK game

Image: Photo 20, 21, 22, 23, 24: group discussions during different sessions

3. Facilities and social part of the 4th STEM-CPD Summer School

The registration fee for the 4th STEM-CPD Summer School included coffee/tea breaks between the working sessions, featuring famous local delicacies, as well as tasty lunches and a social event with an excursion and a social dinner in the old city center of Palermo.

Image: Photo 25, 26, 27, 28, 29, 30: Coffee with delicious Sicilian treats and lunch breaks with the famous traditional food which took place in the inside open hall of the Palazzo Chiaramonte

The excursion included in the 4th STEM-CPD Summer school was organized in the beautiful Botanical Garden of Palermo. Dr. Elisabetta Oddo, who is a botanist and who also gave the summer school session 4 on peer-mentoring, gave us an unforgettable round tour through the famous garden.

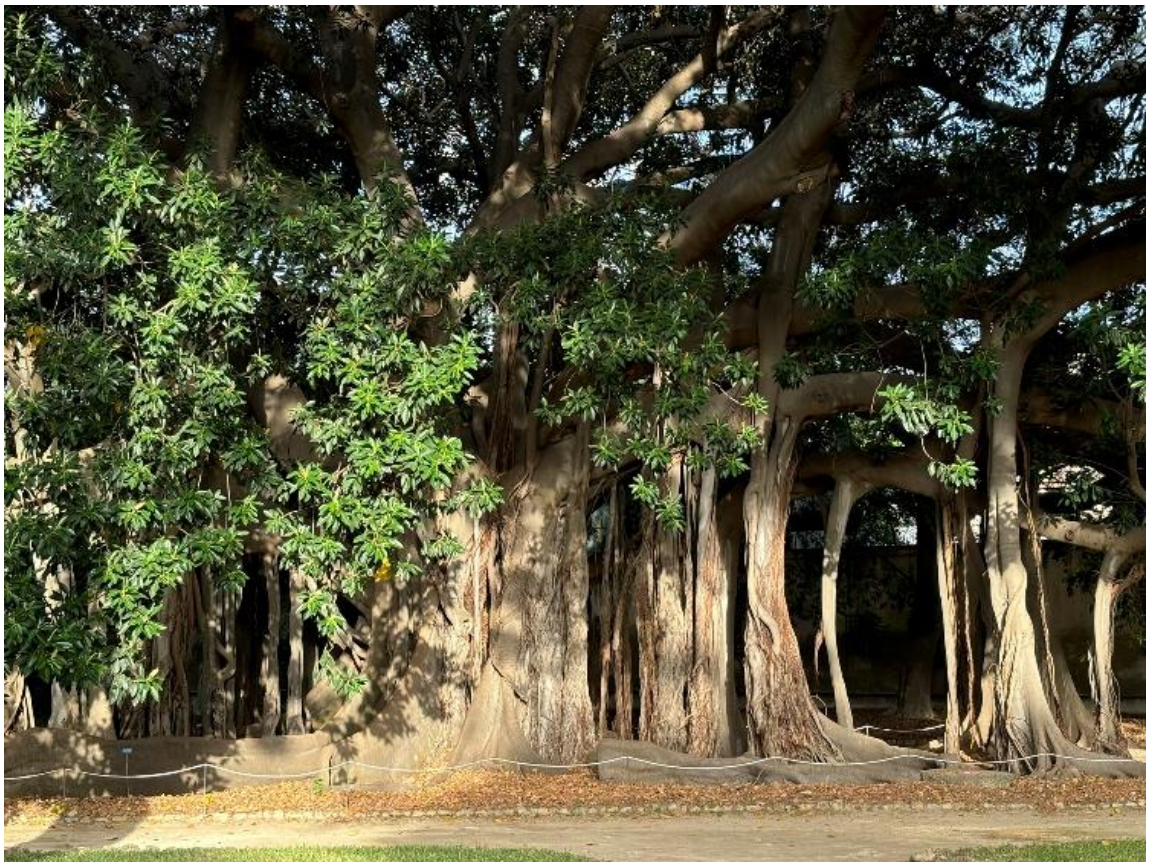

Image: Photo 31, 32, 33: Elisabetta Oddo (phot 31, second from the left) and participants enjoying the garden

Image: Photo 34: 4th STEM-CPD Summer School group photo on the entrance stairs of the Botanical Garden of Palermo on 10th October 2024.

Image: Photo 35, 36: Social dinner in the typical local restaurant in the old city centre of Palermo

4. Final presentations of the CPD-User cases

On Friday 11th October the participants have completed their CPD-User cases and published them on Starfish. At 4th STEM-CPD Summer School each of the 19 participants have created a new CPD User case that are available on Starfish at:
https://starfish-education.eu/browse/?community=2&ftype=usercase

Next, the presentations of the CPD-User cases and discussions took place in two parallel sessions. The participants also evaluated CPD-User cases and gave each other written peer-feedback. They used a special form developed for this purpose.

Image: Photo 37, 38: Presentatios of CPD User cases and discussion in one of the parallel sessions

5. Reflection and certificates ceremony

After each session, the participants defined their take-home message and what they would like to explore further. The last session of the summer school was devoted to the reflection of all participants and the staff. The entire group was very satisfied with the results, their own involvement, and the pleasant atmosphere during the summer school.

Image: Photo 39: Certificate ceremony; Booklets of active learning methods – a gift by University of Amsterdam for all participants of the school

Image: Photo 40: Certificate ceremony group photo 4th STEM-CPD Summer School

6. Evaluation

After the summer school, participants were asked to complete an anonymous evaluation. 16 individuals responded to the survey. They expressed very positive feedback about the 4th STEM-CPD Summer school. Additionally, some participants mentioned that they would appreciate that the moment for the development of the CPD-User case would be earlier in the day. We implemented this point in the programme of the 5th STEM-CPD Summer School.

7. Financial overview 4th STEM-CPD Summer School

The costs of the 4th STEM-CPD Summer School were financed from the registration fee of the participants. The University of Palermo generously covered several expenses for the 4th STEM-CPD Summer School and the travelling and hotel costs of two educators were covered by Erasmus+ grant. This way the balance of the 4th STEM-CPD Summer School ended positive, and the school finished with a surplus that will be used to cover any potential deficit of the next summer schools.