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NextGEng Project

WP2

Tailored training process

Deliverable R2.3

Training seminar of teaching first round

February 2023

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WP2	R2.3. Training seminar of teaching first round
Authors	Petri Luosma
Short Description	The report presents training days organized by JAMK in Jyväskylä on 30–31 January 2023.
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1. Introduction

This report presents the implementation and outcomes of the first training round carried out under Activity A2.3 of Work Package 2 (WP2). The training seminar was organized by JAMK University of Applied Sciences and took place in Jyväskylä, Finland on 30–31 January 2023.

The overall purpose of the seminar was to strengthen participating teachers' competencies in student-centered learning, international co-teaching practices, and the pedagogically effective integration of digital tools in teaching and learning, and to enable them to apply this knowledge when planning the activities for the TTPP courses C1–C6.

2. Objectives of the Training Seminar

The two-day training seminar was designed to:

- Enhance teachers' ability to design and deliver student-centered learning activities.
- Support the development of international co-teaching skills, especially for the joint delivery of TTPP pilot courses.
- Promote the pedagogical use of digital tools, ensuring effective online, blended, and collaborative learning environments.
- Prepare teaching teams for the design and implementation of the TTPP pedagogical model in courses C1–C6.

3. Activities and Learning Content

The first training round was implemented as a two-day onsite seminar held on 30–31 January 2023 at JAMK University of Applied Sciences, in Jyväskylä, Finland. The programme combined plenary inputs, structured workshops, hands-on exploration of digital learning environments, and collaborative sessions dedicated to planning international co-teaching for the TTPP courses.

Day 1 – Foundations of Student-Centered and International Co-Teaching Approaches

The first day focused on establishing a shared pedagogical understanding across institutions.

Key activities included:

- Opening session by JAMK representatives and the WP2 leadership team, presenting the goals of the training days and the role of WP2 within the NextGEng programme.
- Training Session 1 - focused on sharing good practices among the HEI partners, drawing on the results of the preparatory survey and pre-assignments, which provided an overview of existing pedagogical approaches and experiences.

- Training Session 2, was a dedicated session on *planning, implementing, and assessing student-centered* courses.
- Workshop Part I, during which participants worked in three interdisciplinary groups, each including representatives from different subject areas. Discussions focused on how student-centered methods and the seminar inputs could be applied to the upcoming TTPP courses, including possibilities for joint international delivery.
- Visits to JAMK's DigiCentre, giving participants hands-on exposure to digital tools and facilities supporting innovative teaching.
- The day concluded with a networking dinner that further supported team-building and cross-institutional collaboration.



Figure 1. Training activities as part of the Training seminar of teaching first round

Day 2 – Co-Teaching Design and Collaboration with Industry Partners

The second day concentrated on practical planning for co-teaching in the six TTPP subject areas (courses C1 - C6). Main components included:

- **Workshop Part II**, brought teachers together to work in six international co-teaching teams (one for each TTPP course), where they collaboratively designed the pedagogical structure of their upcoming courses/modules. Building on the principles of the *Tailored Student-Centered Co-Teaching* model, the teams discussed and proposed course-specific teaching strategies, learning materials, and assessment approaches aligned with the distinct learning outcomes of courses C1–C6. This included integrating complementary expertise from partner universities and companies and planning the creation of new learning resources such as case studies, sustainability-oriented content, laboratory tasks, and problem-solving activities. These planning activities were supported by templates that guided the co-teaching teams in defining the developed modules, their learning outcomes, learning content, co-teaching roles, digital learning tools, and assessment methods, ensuring a structured and coherent approach to designing the new modules.
- **Companies on Stage**, a dedicated session where industry partners presented opportunities for collaboration and participation in the courses, including potential laboratory topics for the pilot courses C1-C6.
- **Group presentations**, where each team presented its draft co-teaching plan and reflections on student-centered and digital pedagogies.

- The closing session summarized the key achievements of the training and outlined the next steps in the NextGEng project and the implementation of the TTPP courses, followed by a certificate award ceremony.

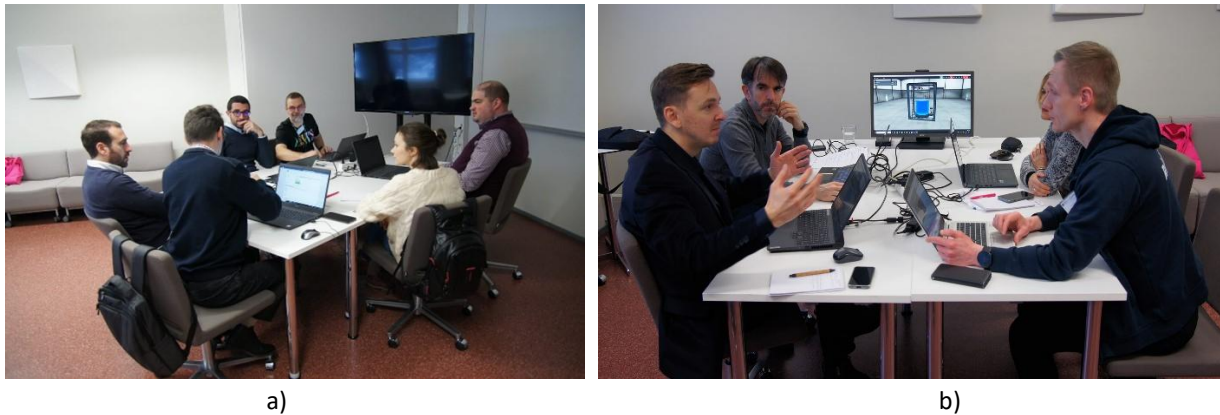


Figure 2. Training seminar, workshop activities a) Co-Teaching Team C1 – Strength of materials b) Co-Teaching Team C2 – Industrial Automation

The seminar met its quantitative target of at least 26 participants, bringing together 29 attendees (28 teachers from partners HEIs and 1 from a company partner) on the first day, and 30 on the second day (with 3 company partners from Valmet, Bosch and ISR). Detailed information on the programme is provided in Annex 1 - R2.3a Agenda, and all teachers who completed the training received an official certificate of participation (Annex 2- R2.3c Certificate Template).

4. Outcomes and Feedback

The first training round produced strong results in both participation and learning outcomes. The success of the activity was measured through Activity A2.4, which included a structured survey completed by the training participants; the detailed results are presented in Report R2.4. The required minimum of 26 respondents was met, ensuring the reliability of the evaluation.

The training successfully:

- Strengthened teacher competencies in key pedagogical areas, including student-centered learning, international co-teaching, and the use of digital tools.
- Fostered collaboration and a shared pedagogical understanding across partner institutions, supporting the development of a coherent approach to course implementation.
- Enabled the creation of tailored pedagogical models for each TTPP course (C1–C6), reflecting the collaborative design work completed during the workshop sessions.
- Built confidence and readiness for international co-teaching, equipping teachers with concrete methods and tools for the upcoming pilot phase.

The survey results confirmed that the qualitative indicators for Activities A2.3 and A2.4 were fully achieved. 100% of participants (77% completely agree, 23% partially agree) found the training days useful and reported gaining new insights for the development of their courses. Furthermore, 96% of respondents (81%

completely agree, 15% partially agree) felt capable of implementing the pedagogical and co-teaching methods discussed—exceeding the 70% target set for both qualitative indicators.

5. Conclusions

The first training round under Activity A2.3 successfully achieved its objectives and laid a strong foundation for the implementation of the TTPP pedagogical model across courses C1–C6. The seminar effectively strengthened participants' pedagogical skills in student-centered learning, international co-teaching, and digital pedagogy. Through structured workshops and collaborative design sessions, the training also supported the development of coherent, tailored pedagogical models for each course and fostered productive cooperation among the international co-teaching teams.

The training met and exceeded its quantitative requirement of at least 26 participants, bringing together 29 attendees on the first day and 30 attendees on the second day, including 28 teachers from partner institutions. All teachers who completed the training received an official certificate of participation.

Overall, the outcomes demonstrate that the first training round successfully prepared the teaching teams for the upcoming pilot phase and contributed significantly to ensuring a consistent and high-quality approach to delivering the TTPP courses.

Annexes

- Annex 1 - R2.3a Agenda
- Annex 2 - R2.3c Certificate Template
- Annex 3 – R2.3.b List of participants [Level of dissemination – confidential]



NextGEng WP2 - Training Days

30.-31.1.2023 | Jamk University of Applied Sciences | Jyväskylä | Finland

Day 1, Monday 30.1.

ROOM C119. Jamk University of Applied Sciences, Rajakatu 35, Jyväskylä.

Goals of the days

- Understanding student-centeredness and international co-teaching and teaching
- methods and digital tools.
- Benchmarking each others methods and tools.
- Combine understanding of student-centeredness and international co-teaching into a
- common way to implement the courses.

9:00 - 9:35 Opening the Training days

Welcome to Jamk by Anneli Kakko

NextGEng presentation by Ciprian Lapusan

Start of WP2 Tailored Training Seminar by Petri Luosma

9:35 - 10:00 Introduction part I

Summary of the survey and pre-assignments by Tarja Moilanen and Eila Burns.



10:00 - 12:00 Introduction part II

Planning, implementing and assessing courses in a student-centered way by Eila Burns.

The introduction contains a break at the appropriate moment.

12:00 - 13:00 Lunch break

13:00 - 15:00 Workshop part I

Working in three groups. In each group at least one representative from each subject area.

Discussion about how the pre-assignment and Eila Burn's presentation on student-centred learning influence on your own views on the future implementation of your study course and the possibilities for joint implementation.

Possibility to group visits at Jamk's DigiCentre during the workshop.

15:00 - 15:30 Coffee break

15:30 - 17:00 Workshop part I continue

Working in three groups. In each group at least one representative from each subject area.

The discussion continues by thinking about how the contents of the different study courses enable and support the views that have arisen. How the strongest possible presence of the student-centred method and the international co-teaching can be realized in the study courses.

Possibility to group visits at Jamk's DigiCentre during the workshop.

17:00 - 21:00 Get together dinner

17:00 - 17:30 Transportation from Jamk Campus to Kuikka

17:30 - 21:00 Sauna evening and dinner at Ränssi Inn and transportation back to Jamk Campus



Day 2, Tuesday 31.1.

ROOM D148 and D149. Jamk University of Applied Sciences, Rajakatu 35, Jyväskylä.

9:00 - 11:00 Workshop part II

Working in six international co-teaching teams for each subject area.

Planning the international co-teaching for the subject area and increasing the student-centred orientation of the course.

11:00 - 12:00 Companies on stage

Opportunities and plans for co-operations to participate in the study courses.

12:00 - 13:00 Lunch break

13:00 - 15:00 Workshop II continue

Planning the international co-teaching for the subject area and increasing the student-centred orientation, as well laboratory visits during the course.

15:00 - 15:30 Coffee break

ROOM C119. Jamk University of Applied Sciences, Rajakatu 35, Jyväskylä.

15:30 - 16:30 Group presentations

Presentations of the results of the workshop (10 min. for each group).

16:30 - 17:00 Closing

Summary of the Training Days by Petri Luosma and Tarja Moilanen.

Next steps in the NextGEng project.

** Changes are possible.*



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Certificate

This is to certify that

Name

has taken part in the Tailored Training Seminar of WP2 at Jamk University of Applied Sciences
in Jyväskylä, Finland from January 30 to 31, 2023.

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NextGEng Project

WP2

Tailored training process

Deliverable R2.4.

Analysis of the questionnaires on training seminar

March 2023

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WP2	A2.4. Analysis of the questionnaires on training seminar
Authors	Petri Luosma, Tarja Moilanen
Short Description	The report presents the analyses based on the feedback collected after the training sessions held in Jyväskylä on January 30–31. The report evaluates the effectiveness of the training and participants' ability to apply pedagogical methods in course development and co-teaching. It highlights improved teacher competencies in student-centered learning, international collaboration, and the use of digital tools, as well as overall participant satisfaction with the program.
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1. Introduction

WP2 activities help teachers to reflect on different teaching and learning methods and to strengthen their competence in student-centered teaching, taking advantage of international co-teaching opportunities.

The training seminar promoted and expanded participants' thinking of learning and student-centered pedagogies. Moreover, contemplated participants mindsets towards learning and co-teaching. The knowledge gained in the workshop could be utilized when the teams divided into subject areas, were planning new improved courses that are planned to be implemented in a student-centered manner in international cooperation.

To monitor the impact of the training days, feedback was collected from participating teachers after the training days held at Jyväskylä 30th-31st of January.

The survey addresses the following qualitative indicators associated with the WP2 activities:

Table 1. Indicators associated with the WP2 activities.

No.	Qualitative indicator	Activity	Target group	Indicator Code
1	- positive feedback from 70% participants related to training activities	A2.3	Teachers	Q1
2	- 70% of participant teachers are able to apply the pedagogical methods in course upgrading and co-teaching process	A2.3	Teachers	Q2

2. Results of the feedback questionnaire

Feedback on the training sessions was collected from all seminar participants during the designated evaluation period of February 2–8, 2023. Invitations to answer were sent as a personal answer link via e-mail. The questionnaire included the respondent's background information and three questions to be evaluated.

In the first section of the questionnaire, participants evaluated seven statements concerning the overall success of the event using a four-point Likert scale of Disagree – Partially disagree – Partially agree – Completely agree. The second item invited participants to provide open-ended feedback regarding the perceived success of the event, while the third item solicited suggestions for its future improvement.

Altogether 26 responses were received. From all responders, two of them participated online in the training seminar. The number of respondents with background information is shown in Table 2.

Table 2. Respondents background information.

Course schedule in partner universities			
Course	Partner	Number of face-to-face participants	Online participants in the training seminar
C1 - Strength of materials	TUCN	3	
	JAMK	1	
	UJA	2	
C2 - Industrial automation	TUCN	1	
	JAMK	1	
	UJA	2	
C3 - Design projects	TUCN	1	
	JAMK	1	
	UJA	2	1
C4 - Quality assurance and Applied Methods	TUCN	1	
	JAMK	1	
	UJA	1	
C5 - Computer Aided Design	TUCN	1	
	JAMK	1	
	UJA	2	1
C6 - Manufacturing Technology	TUCN	1	
	JAMK	1	
	UJA	1	
Other participants	JAMK	2	
Total		26	

First section: Evaluated the success of the event.

The results of the questions are presented next.

Table 3. Subjects to be evaluated and numerical results from the feedback on the success of the event.

Subject to be evaluated	Disagree	Partially disagree	Partially agree	Completely agree	Total	Average	Median
Content was interesting on day 1	0	0	2	24	26	3,9	4,0
Content was interesting on day 2	0	0	0	26	26	4,0	4,0
The event met my expectations	0	0	3	23	26	3,9	4,0
I can use the issues discussed in the presentations (pedagogical methods and co-teaching) in planning and implementation of my course selected for the upgrading in NextGEng project.	0	0	4	21	26	3,8	4,0
The workshops were useful for me.	0	0	6	20	26	3,8	4,0
I got new insights from the presentations.	0	0	4	22	26	3,8	4,0
Technically, the event was successful.	0	0	2	24	26	3,9	4,0
Total	0	0	21	160	26	3,9	4,0

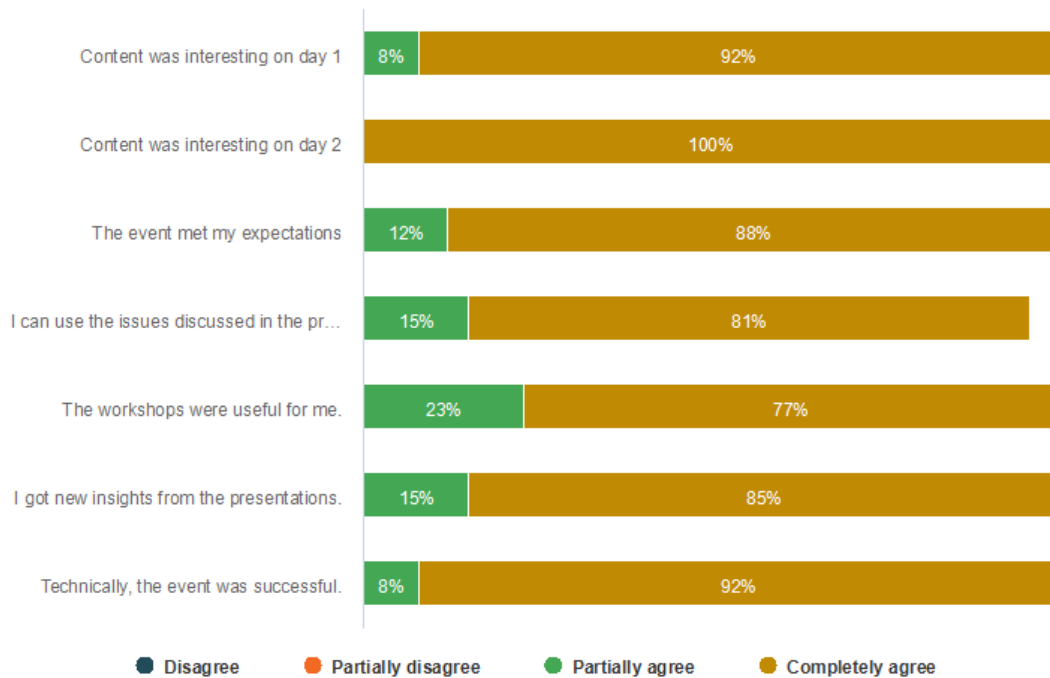


Figure 1. The results for Question 1. Number of respondents: 26.

The goals of the qualitative indicators Q1 and Q2 (see Table 1.) set for the Training seminar were achieved.

Table 4. Indicators and results associated with the WP2 activities.

Indicator code	Qualitative indicator	Subject to be evaluated	Result
Q1	- positive feedback from 70% participants related to training activities	The workshops were useful for me.	77% Completely agree 23% Partially agree
		I got new insights from the presentations	85% Completely agree 15% Partially agree
Q2	- 70% of participant teachers are able to apply the pedagogical methods in course upgrading and co-teaching process	I can use the issues discussed in the presentations (pedagogical methods and co-teaching) in planning and implementation of my course selected for the upgrading in NextGEng project.	81% Completely agree 15% Partially agree

Second question of the questionnaire: Where did we succeed?

The results of the question are presented next.

Table 5. Responses to the question related to the overall success.

Responses
The workshops were extremely useful, thank you.
Content was interesting and it was very nice to meet international partners
Organization
The quality of the people involved in the event was the best. The work sessions were very useful and served to define more precisely the following tasks of the project.
All the partners involved got the chance to be together, understand each-others syllabus and teaching methods and set-up a basis for cooperation.
The organized activities offered good examples and discussion that helped me to understand and to plan the implementation of course upgrade and teaching
Transmitting the interest on student-centered-learning
Planned the international co-teaching for each subject area
Definitely YES. Everything was very well organized and I appreciate the punctuality with which the activities were carried out. I met professional, dedicated, worm and great people, involved in activities with and about students and teachers. And, of course, I enjoy a lot visiting the labs from JAMK.
The organisation, venue and speakers were very appropriate. Specialists in pedagogical aspects from JAMK provide very useful techniques. Workshops for teaching teams were very productive.
In the description of pedagogical methods and co-teaching. Also, I really found usefull the workshops with same-course colleagues, where I saw different points of view and teaching methods for the same content.
The content, venue and social activities were appropriate. The specific training in student-centered pedagogic approaches was very interesting, and many tools were presented. The workshops were very productive and constituted a good starting point for the kicking off the WP3.
The content and schedule of the seminar.
All presentations were interesting for me!
The presentation related to the teacher's learning
You succeed on the first day mainly in the "pedagogical methods and co-teaching" session, and the second day in the workshops' organization.
All group activities in the evening time were pretty helpful to get a joined team.

Organization, time schedule were well done
From online participation:
- Accessibility.
- Diversity of perspectives, access to the pedagogical vision of several people from different European universities.
- Exposed educational methodologies.
online connections
I have found the meeting very helpful because it has opened for me a new perspective of seeing a course class in a way that the students could become a learning partner. I also could see other ways of teaching.

Third question of the questionnaire: What can we do better?

The results of the question are presented next.

Table 6. Responses to the question related to the overall success.

Responses
No suggestions.
maybe scheduled breaks could improve the quality of the teamwork in small groups
Everything was great. Thank you
The agenda was highly packed with activities and tiresome due to the long travelling. I understand that it was a matter of everyone's time availability and money, but a longer stay would have been nice. In the end, what really matters is that the most important aspects of the project (like outputs, deadlines, workgroups etc.) were covered and channels for future cooperation were clearly set-up.
The event organization was good, nothing to complain
In the future, we can have more time for work on each subject area
During the activities, I wondered what the students opinion would be about the learning methods and how to better reach them what we want to transmit to them, regardless of the teaching method/technique used. It would be an interesting idea to do a quiz among the students to find out these answers.
Probably the duration of the training days was a bit short and more days could be proposed in the future.



In general, the training days were useful in all aspects. If I have to say something to be improved, I would reduce time spent on the first day to give more time to the workshops of the second day. Those workshops were really useful for me.
Duration of the training could be longer to learn more about specific examples of applications of innovative training technique.
It was all OK
The event in Jyväskylä was a success, but probably we need more interactive time with companies colleagues.
Difficulties of participation and interaction in real time (online participation): the dynamics of online participation can be different from that of an in-person workshop, which can result in less participation in the methodologies exposed and developed.
In my opinion, I don't think that I would change something from what I have found/experienced in Finland.

3. Conclusion

The training seminar held in Jyväskylä (January 30–31, 2023) received highly positive feedback from participating teachers. All 26 respondents rated the sessions as relevant, well-organized, and useful for developing new approaches to student-centered teaching and international co-teaching. Participants especially appreciated the interactive workshops, which fostered collaboration and exchange of pedagogical practices among partners. Open-ended responses emphasized the value of meeting international colleagues, gaining new pedagogical insights, and the possibility of applying the learned methods in upcoming course upgrades.

Both qualitative indicators defined for Activity A2.3 were successfully achieved. Qualitatively, **100% of participants** found the workshops useful (**77% completely agree, 23% partially agree**) and **100%** reported gaining new insights (**85% completely agree, 15% partially agree**), exceeding the **70% target** for positive feedback. Furthermore, **96% of teachers** confirmed their ability to apply the pedagogical methods in course upgrading and co-teaching (**81% completely agree, 15% partially agree**), also surpassing the established 70% target. These results confirm that the training effectively strengthened teachers' competencies in student-centered pedagogy, digital tools, and collaborative international teaching.