



PROMOTE – Piloting Field Report

Deliverable IO 6

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1. Summary

The experience (pilot) reports were set up by each project partner responsible for the implementation and monitoring of the PROMOTE learning course that correspond to the PROMOTE Modular Curriculum Design (IO3). Within the PROMOTE project, three courses were piloted with a total of 69 participants.

The reports were clustered along the following topics:

1. Course Description
2. Summary
3. Target Group
4. Themes (content area)
5. Learning Objectives
6. Learning Pathway
7. Experience report from teacher/trainer
8. Narrative Project Report form student(s)

2. Pilot Module: Partial Foot Amputation

2.1. Course Description

Partial-Foot prosthetics, according to is *“light and esthetical prosthetic concept for forefoot amputation level with remaining ROM in the ankle”*. This course provides knowledge and hands-on skill for the application of a forefoot prosthesis according to Bellmann.

Foot prosthetics is a small but very complex field of orthopaedic technology. This prosthetic design and concept developed by Bellmann is both functionally ingenious and intriguingly logical.

In this seminar, we teach the implementation of all practice-relevant aspects of the Bellmann partial foot prosthesis method.

The aim of the course is not only to provide relevant knowledge on that amputation level and related biomechanical aspects, it is also to acquaint the participant with a contemporary production of ankle-free forefoot prostheses, where effort and effectiveness are in an acceptable ratio.

During the onsite hands-on clinical seminar, following video, lecture and live demonstration, all clinical application, from evaluation and negative plaster casting to the rectification of the positive, fabrication, finishing and fitting of the prosthesis, is then performed by all participants with actual partial-foot amputees.

2.2. Target group

The target group should include adult students – people that already have and do the job, and that want to improve the knowledge of specific subject that are not covered during their regular ortho-prosthetic education. The people that need bridging to the next level of professional development. That also means that potential participants should have workshop experience, and general theoretical background. To summarize, our target group was PO professionals with at least 3 years of working experience, and level of associate ortho-prosthetics professional.

2.3. Themes (content area)

- Anatomy theory
- Biomechanics theory
- Treatment protocol
- Patient assessment
- Variation of materials and design for device
- Complete treatment procedure (prescription, casting, rectification, fabrication, fitting, gait analysis, evaluation, finishing, follow up)
- Practical workshop – treatment of the patients

2.4. Learning objectives

- **Knowledge:**

After the course, participant should

- Know about anatomy of the foot

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- Know about materials and tool they will use in patient treatment
 - Know about pathology of PFA, and in which case it is applicable
 - Know what are the steps of the treatment
 - Know about biomechanical aspect of the foot prosthesis
- **Skills:**
 - Participant should be able
 - To recognize cases that should be treated with Bellmann PFA treatment
 - To apply all the steps of the treatment on demo patients with supervision
 - To apply all the steps in their facilities without supervision
- **Attitudes:**
 - After the course, they will be capable to
 - Be capable to show their facility colleagues their Bellman PFA treatment
 - Be keen to apply acquired knowledge in their facility asap

2.5. Methods/Activities

The course content is delivered through blending learning approach. This means that course have theoretical part that will be delivered over Moodle internet platform, and after that theoretical part is finish, student will come to PO facility to connect theory with practical steps of patient treatment. In this project we use facility of Thomas More University of Applied Science. At the end of the course students did final theoretical exam as evaluation method, and of course feedback from their practical workshop trainers about devices that they prepare for the patients.

Resources and materials

We delivered complete course over multimedia Moodle internet platform. Participants also receive complete study notes. Our online facilitator was all the time on their disposal, so they can ask questions that will help them to better understand the course content. Facilitator was present in live session as well as the one that send the feedback to their comments about specific topics.

Practical workshop was organized by Thomas More University. They proved students with needed materials and tools. Our teachers also use recordings from previous Bellmann treatments to help participants better understanding the complete treatment process. Human Study enabled two skilled PO professional that led the course as human resources.

2.6. Learning Pathway

PFA learning pathway is based on syllabus that was approved by responsible committee of Human Study and world's roof professional association for prosthetics and orthotics. This syllabus covered theoretical topics needed for proper understanding of the problem, and practical steps of patient treatment listed in the order as they will be applied in practical workshops. Following topics are covered as they are listed:

- L¹01: Anatomy of Lower Limb and Foot*
- L02: Biomechanics of Partial Foot Amputation and Ankle Disarticulation*
- L03: General Prosthetic Principles and Treatment Protocol in Ankle Disarticulation and Partial Foot*
- L04: Patient Assessment for Partial Foot Amputation (PF)*
- L05: Variation of Materials in Partial Foot Amputation Prostheses*
- L06: Variation of Prosthetic Designs for Partial Foot Amputations I*
- L07: Partial Foot Amputation Prosthetic Prescription*
- L08: Casting Technique of Partial Foot Amputation*
- L09: Rectification Technique for Partial Foot Amputation Prostheses (PFA)*
- L10: Fabrication Technique in PF amputation Prosthesis*
- L11: Partial Foot Amputation Prosthetic Fitting*
- L12: Partial Foot Amputation - Gait Analysis*
- L13: Device Evaluation and Adjustments*
- L14: Finishing Partial Foot Amputation (PF) Prostheses*
- L15: Follow up*
- W1.2 - Biomechanics - Fundamental characteristics of normal motion and human locomotion*
- W2.1 Variation of Prosthetic Designs for Partial Foot Amputations II (Silicone Prosthesis)*

2.7. Teacher's Experience Report

1. Development process

Course use Human Study materials of Human Study developed group of the short courses in ortho-prosthetics education, which was recently developed by Human Study PO teachers' team. In that process we developed study notes (letters) for the participants based on different library and internet resources and Human Study 20 years of good blended learning education practice. This means that we research a lot to develop the course, and enrich it with our own experience of teaching/training POs in last 20 years.

The main development process was to adapt the teaching content to European settings and combine the use of the PROMOTE learning platform with a face to face phase. The face to face training was a crucial part for the competence develops of our learners where they applied their learning and skills to real patients.

2. Methodology and Content

General concept of this course was to apply blended learning education, that consists of online part, where we use methodology of online lecturing by using different forms of education materials to satisfy all kind of students. We use letters (textual form of the lessons), videos (video format of the lessons), audio lessons, and info-graphics (PPT – enables fast review of the lessons before the exam). We also use education tools like quizzes and assignments that has task to increase synchronous and

¹ Topics marked with L are study notes (letter) topics delivered online, and the onw marked with W have been covered during the workshop

asynchronous interaction with online students. This part of blended concept is closed with final theoretical exam.

The second part of blended learning concept was practical workshop, where student close experiential learning cycle with practical application of the knowledge acquired in the online part of the course. We use teaching methodologies of lecturing, demonstration, brainstorming and discussion, guided practice, and unguided practice.

3. Outcomes

Some of the students only take theoretical part of our program and 12 of the students participated in final workshop in Geel, Belgium. Most of the workshop participants was capable to produce PFA device on guided practice level, and all of them participate on final exam where they show pretty good final exam results.

Eleven students take the exam and they had average grade of 7.1/10

4. Impact

Twelve of the practical workshop students fill in evaluation form. Here are some of their comments that can illustrate impact of this PFA Promote course on our participants.

- Thank you very much for this really great experience, the international exchange and the many great encounters that came about through this course! I am glad to have been there and thank all organizers and lecturers. I can only recommend everyone to take this course! :) Best regards!
- Thank you very much for this workshop. :)
- I just would love to say that thank you for making me part of this program.

5. Perspective

In the process of course delivering we engaged one online teacher (facilitator) and two workshop trainers – main one and assistant to better cover group of 12 students. Students are mostly satisfied with course, but we have to say that the problems come from different side. Our pre-requisites for this course are that participants need to have at least 3 years of practical experience in PO, and most of the participants have been regular University students without needed experience. We also had problem with enabling patients for them, which means that such courses cannot be organized without engagement of PO industry, that have regular patients that can be engaged for education purposes.

That was the reason why participants receive only certificates of participation. To receive certificate of achievement they need to repeat the workshop procedures with their own patient in follow up period of the course. That was not possible since neither one of them does not work in industry which limit the possibility to have a patient to apply procedure in non-guided environment.

6. Professional Development

As the workshop trainer of the practical workshop, it required more time to understand and gauge the level of knowledge of the students as I was not part of the online training. Most of our students find that this course is something new for them, since they do not have such topic in their regular

University syllabus. Unlike most of our PFA trainings, all participants of this practical workshop were university students, thus they did not have many experiences in working with patients. I had to be flexible in change the facilitation and training approach and helped the participants to gain confident in a short amount of time when they work with the patients. This was one of the main professional growths for me.

2.8. Narrative Project Report – “my Story”

by Els Moris, Thomas More

Choosing topics to pilot in such a wide profession is not easy. Partial Foot Amputation (PFA) is an ortho-prosthetic treatment, that also touches the field of orthopaedic shoe treatment: this topic could be educational for many professional groups, which is the reason we chose it.

One of the Promote partners, Human Study, organises a blended course on this topic which we used to base the Promote course on. This existing course is developed for further development of experienced professionals, which meant several serious adaptations were needed to change the target group, since we wanted to include students in the course. We planned more time to repeat the theory in the programme, planned extra information on the practical and clinical part, and planned for a flexible organisation. This was needed since in the original course participants are meant to prove their knowledge at the end by showing the technique on one of their own patients, but student-participants don't have patients of themselves yet.

The practical week was planned to take place in the labs of Thomas More in Geel, Belgium, since there we'd have access to a large enough clinical room plus sufficient machinery to accommodate a larger group.

At the start of the recruitment one thing did become clear about the choice of our location. In orthopaedics, as in other medical professions, the choice of device and technique are sometimes very regionally determined and linked to habits and certainly to local legislation. Concretely for Belgium this means that Belman Technique is barely ever used and not known to professionals. These patients in Belgium are treated either with orthopaedic shoes, custom made with a foam prosthesis inside, or with a silicone prosthesis. Because of this it was very difficult to convince companies to let us contact their patients, and to let their personnel join our course.

It was extremely difficult to gain access to patient profiles and convince these people and their clinicians to participate. In the end, we did get the patients, but none of the companies participated fully, although they did show interest in the results and in this treatment method. But we had determined that participants really had to be able to be in Geel the full practical week, and none of the professionals saw fit to free themselves for the entire week. Thus, all participants were BSc and MSc students.

From the start, the atmosphere in the group was wonderful. Most participants were international students, and the lecturers were also people with a huge international experience. Although the language of the course was determined to be English, most participants also spoke German, French, Croatian, Albanian. With a dual role of a participant/learner as well as the organiser, I noticed that they also talked a lot before and after classes, there was a lot of networking, language-learning, cultural exchange going on which had a very good outcome for these students, many of which will go

on an international exchange next year. All of us talked a lot about how our profession is organised in other parts of Europe and beyond, and exchanged knowledge and ideas.

The participating patients too loved this experience: hearing how people with their disability in other countries are treated, what the training of the clinicians there is like, talking with experienced clinicians from other countries (the lecturers) and trying out a treatment method that is not known here were very beneficial for them.

This week was a rollercoaster: students will be slower in their work than professionals, so they needed to work very hard to keep up with the pace we had foreseen. But almost everyone succeeded in finalising their device and fitting it to the patient. were very happy with the course, and asked us for options to do this again in the future on other topics.

We could not complete the final assignment, which was the treatment on a personal patient. Because of the different target group the idea had been that participating professionals do this together with a few students, but since we had no participating professionals this became impossible. Participating students did however still evaluate the course as very high level, most feel that they would be able to use this method on their future patients independently. I was personally very happy with this course, even though the organisation of the practical week proved to be much more complicated than I had planned.



3. Pilot Module: Business Management

3.1. Course description

The main purpose of this course script is to clarify basic concepts that play a role in both economics and business administration and which will be referred to repeatedly in the further course of studies.

After the introduction, a brief historical summary and the classification of business administration as a science await you in the second chapter. Subsequently, key terms from business administration and economics are explained.

The third chapter of the course script introduces the three areas of our business administration degree program. The two sub-disciplines business administration and economics and supporting and adjacent sciences.

You can reflect on the contents you have worked through in the fourth chapter. Here you will be asked questions for your self-monitoring and will be given a case study for processing.

3.2. Target group

The target group include all higher education students who are interested in gaining knowledge in business management. Regardless which study subject they already studied, the course will give a basic overview of the topic. Since the format of the course is completely online/ asynchronous, the students need no specific learning skills. The age of the students is for no interest.

3.3. Themes (content area)

- Basic roles of economics and business administration
- Historical summary
- Definitions and terms
- Key metrics

3.4. Learning objectives

Knowledge:

- Knowing the similarities and differences between the two sub-disciplines of business administration and economics.
- Know and illustrate the connection between wants, needs and demand.
- Know the different representation of production factors in the context of business administration and economics and explain the reasons for the deviation.

Skills:

- Be able to define business administration as an interdisciplinary science.
- Explain similarities and differences between the terms productivity, turnover, profit, profitability and return on investment.
- Explain the differences between the primary and supporting functions of a company.
- Explain the difference between supporting functions and holistic management tasks

Attitudes:

- Correct use of terms such as company, business, enterprise.

3.5. Methods/Activities

The course content is delivered through distance-learning course scripts on the online learning platform. The student will receive separate portions of the whole module for better understanding. The students must go through the scripts on their own without synchronous modules.

Resources and materials

Beside the course content on the online learning platform, the students receive a study script. This script can be downloaded as additional offline resource.

The course content is based on the learning letters of PFH University for the bachelor program 'Business Administration'.

3.6. Learning Pathway

The learning pathway of the course follows the clear table of contents of the learning letter. All the different chapters are based on each other. Therefore, it is advisable to go through the chapters in a sequential line.

1. Introduction
 - 1.1. *Structure and concept of this course script*
 - 1.2. *Learning objectives if the course script*
2. *Essential contents of economic sciences*
 - 2.1. *Development and classification of economic science*
 - 2.1.1. *Historical outline*
 - 2.1.2. *Classification into the system of sciences*
 - 2.1.3. *Experience object: company*
 - 2.1.4. *Essential difference between the sub-disciplines*
 - 2.1.5. *Common object of insight*
 - 2.2. *Fundamentals of economic activity*
 - 2.2.1. *Goods as a means of satisfying needs*
 - 2.2.2. *Demand and supply*
 - 2.2.3. *Production factors*
 - 2.2.4. *Economic principle*
 - 2.2.5. *Enterprise - Company*
 - 2.2.6. *Measurability of rational activity with key metrics*
 - 2.2.7. *The company and its relationships with the environment*
 - 2.2.8. *Types of companies*
 - 2.2.9. *Simple economic cycle*

3.7. Teacher's Experience Report

1. Development process

Since the course is completely based on the learning letters of PFH Private University of Applied Sciences, the concept already existed. No major changes were made, because the concept is proven by the success of the Bachelor programs.

As teacher it was possible to transform the learning letters to an only based course with only a little effort.

2. Contents

The content is completely based on the learning letters of PFH Private University of Applied Sciences. The content was divided in weekly portions with closed chapters. The complete content was accessibly for the students from the beginning of the course.

3. Methodology

The methodology is quite simple. The course focusses complete on self-learning. No synchronous parts were included. The content was separated in weekly portions, but there was no restriction to get to the next week. The students should be able to follow the course in their own speed.

At the end of every week, reflections tasks were asked. These tasks should help the students to check if they had understood the weeks' topics.

The students had the opportunity to use a forum to exchange with each other or to ask questions to the teacher.

At the end of the course, the students had the opportunity to do a final exam.

4. Outcomes

During the time of the course no discussions arose, and no questions were asked to the teacher. Furthermore, the concept of the course did not permit any monitoring of the student's development. Since the refection tasks were only for the student's understanding, it cannot be seen, if they understood the content.

One student took the final exam.

5. Impact

Overall, the students were neutral to partially satisfied with the course. The students indicated that the educational material / the content and also the learning platform were appropriate. Questions about how the students were encouraged to discussions and critical thinking got poor results.

The final exam was rated with very good grades:

- The exam was aligned with the course content.
- The exam forced the students to understand the topic and apply their knowledge.

6. Perspective

From the perspective of a teacher, the concept of the course seems to be quite poor. Learning letters and completely self-learning modules do not encourage a fruitful environment for learners. This is shown in the poor number of feedback and the fact, that there were no discussions and questions. This was also stated in the student's evaluation. Furthermore, just one student took the final exam to get ECTS. All this suggest that the concept should be adjusted in future courses.

7. Professional Development

Teachers always try to satisfy the learners. By looking at the results and the feedback, this goal was not fully achieved with the business management course. As teacher this supports me in my wish of building interesting courses for my students. I learned that a simple learning letter can deliver knowledge but cannot facilitate a fruitful learning environment. For my own courses I will try to encourage my students to dive into the topic and not just to listen to the lessons.

3.8. Student's Narrative Project Report – “my Story”

by Alessandro Mazzarini, SSSA

The course on fundamentals in business administration was very useful for us as Ph.D. students, since it provides very useful insights both if we decide to continue our journey in academia or settle our future into the corporate world.

We believe that understanding the fundamentals of business administration can enable us Ph.D. students to bridge the gap between our specialized field and business-related areas, allowing for a more multidisciplinary approach. Moreover, having groundings in business administration will help us in managing the projects that we are involved in during our Ph.D. Imagining a future in academia, we know that articulating the potential of real-world implications and applications of our research will be very useful to secure research fundings. Knowledge in business administration can be very useful to be more versatile future professors, able to translate their discipline into business-related aspects.

A fundamental understanding of business administration is invaluable also when considering a future career in the corporate world. Ph.D. graduates who can articulate complex ideas clearly are more likely to succeed in leadership roles, whether in research and development, project management, or marketing. Also in the corporate world, knowledge about business administration can provide additional insights into project management techniques. This course can be helpful for Ph.D. students that aspire to become entrepreneurs or work in startups. A solid foundation in business administration gives the basics skills needed to understand market dynamics, manage finances, and run a business. In corporate environments, Ph.D. graduates with business knowledge can act as bridges between technical experts and business executives, fostering collaboration and facilitating the implementation of innovative solutions.

The letter form allowed us to study the course material at our own pace, depending on our research activities, but we would have appreciated to have a more interactive course with some frontal lessons. Indeed, we were not able to advance until the final exam within the set duration of the pilot. Still, we believe that the course contents can add a versatile skill set to us as Ph.D. students, enhancing our research capabilities and adaptability to various professional contexts, both in academia and in the corporate world.

4. Pilot Module: Design Thinking

4.1. Course Description

The third piloted PROMOTE module related to a Design Thinking entrepreneurial course that blinc and SR carried out with 16 persons from 3 organisations from DE, BE and IT.

In this course the entrepreneurial branch of the PROMOTE curriculum could be fully realised. The training related to the competence to "Spot ideas and opportunities" and aimed at students and partly trainers of HE organisations.

It was consisting of a series of 4 online learning units in Design Thinking following DBCL learning methodology. Selected students (3 per partner) came together in a 5-day F2F event in Göttingen in June 2023 for prototyping workshops and presentations during an international conference.

Here, 3 teams of students created prototypes for different applications relating to P&O and Sustainability.

4.2. Target group

The training was developed and realised by PROMOTE trainers, targeting students of higher education institutions.

In the course of the (pilot) project, these students were guided to use the PROMOTE approach (here the Design Based Collaborative Learning for Sustainable Development) to develop new products and services that have a positive effect on sustainable development in their P&O context.

4.3. Themes (content area)

- Spotting ideas and opportunities
- Design Thinking
- Competence Oriented Learning and validation
- Note: Design thinking and COL&V theory was delivered via the PROMOTE online platform

4.4. Learning objectives

Knowledge:

- Design Thinking methodology
- Competences and Competence Oriented Learning and validation

Skills:

- Use of the SDG Explorer for topic opening and self-assessment.
- Design thinking skills: developing visions for sustainable development in the region, spotting ideas and opportunities, creativity techniques and prototyping.
- Self-assessment of the competence to spot ideas and opportunities along the EntreComp competence framework

Attitudes:

- Positive attitude towards the development of ideas in the team.
- Tolerance of ambiguity as a team member in relation to the developments in the teams
- Positive appreciation of all design thinking phases and iterative processes
- Positive appreciation of the contributions of all team members
- Openness, curiosity and motivation to use mixed learning forms

4.5. Methods/Activities

We applied a combination of::

- Competence Oriented learning (self-learning und Self-Assessment provided via LMS)
- Design Thinking workshops
- Own project development
- External assessment along the LEVEL5 taxonomy for “Spotting Ideas and Opportunities”

Resources and materials

- PROMOTE Platform including courses on:
 - o Design Thinking
 - o Spotting ideas and opportunities
 - o COL&V
- Design Thinking workshops:
 - o facilitated via Design Based Collaborative Learning (zoom (online synchronous communication and collaboration), MIRO (online collaboration with creativity techniques), and Moodle (as LMS); and
 - o F2F in the course of the C2 activity

4.6. Learning pathway

Step No.	Title	Content	Learning objective	Method Activity	Media	time	Competence column ²
2	Design Thinking Intro	<ul style="list-style-type: none"> • Whole methodology 	<ul style="list-style-type: none"> • Understanding the context (entrepreneurship edu) and the additional value 	<ul style="list-style-type: none"> • Tools to collect many ideas e.g. brainwriting, bisociation etc. 	<ul style="list-style-type: none"> • See catalogue 	<ul style="list-style-type: none"> • 2 days 	<ul style="list-style-type: none"> • K = Medium (know why and how on DT) • S = low-medium (exercising) • A = low/medium (Curiosity and Motivation)
2	Design Thinking	<ul style="list-style-type: none"> • ideation 	<ul style="list-style-type: none"> • Lateral Thinking 	<ul style="list-style-type: none"> • Tools to collect many ideas e.g. brainwriting, bisociation etc. 	<ul style="list-style-type: none"> • See catalogue 	<ul style="list-style-type: none"> • 0,5 days plus 1-3 days work groups 	<ul style="list-style-type: none"> • K = Medium (know how on DT) • S = High (application and transfer) • A = high (Ambiguity tolerance, joint development)
2	Design Thinking	<ul style="list-style-type: none"> • Refinement 	<ul style="list-style-type: none"> • Exclusion 	<ul style="list-style-type: none"> • Different tools and grids to select according to certain criteria 	<ul style="list-style-type: none"> • See catalogue 	<ul style="list-style-type: none"> • 0,5 days plus 1-3 days work groups 	<ul style="list-style-type: none"> • K = Medium (know how on DT) • S = High (application and transfer)

² Please indicate if the unit targets knowledge, skills or attitudes and if the difficulty is rather basic, medium or advanced.

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Step No.	Title	Content	Learning objective	Method Activity	Media	time	Competence column ²
				<ul style="list-style-type: none"> Tools for marketing and client orientation e.g. persona canvas 			<ul style="list-style-type: none"> A = high (Ambiguity tolerance, joint development)
2	Design Thinking	<ul style="list-style-type: none"> Prototyping 	<ul style="list-style-type: none"> To create a convincing prototype 	<ul style="list-style-type: none"> Open catalogue of prototype formats Prototype has to be presented both as learning app module and in a group presentation 	<ul style="list-style-type: none"> See catalogue 	<ul style="list-style-type: none"> 0,5 days plus 1-3 days work groups 	<ul style="list-style-type: none"> K = Medium (know how on DT) S = High (application and transfer) A = high (Ambiguity tolerance, joint development)
3	Self Assessment and Validation (for trainers)	<ul style="list-style-type: none"> Competence assessment and validation over the learning pathway 	<ul style="list-style-type: none"> To reflect on the own learning pathway To give examples for the reached level of competence 	<ul style="list-style-type: none"> Presentation of the assessment concept LEVEL5 Self assessment grids to be first filled individually, discussed with peer and (i/a) discussed in the group. i/a external validation and feed- 	<ul style="list-style-type: none"> LEVEL5 assessment grids 	<ul style="list-style-type: none"> 2 hrs 	<ul style="list-style-type: none"> K = Medium (know how on competences and validation, self-reflection on the learning process) S = High (Metacognition) A = medium to high (motivating, maybe decides to go on).

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Step No.	Title	Content	Learning objective	Method Activity	Media	time	Competence column ²
				back • issue of LEVEL5 certificates			

4.7. Experience Report

1. Development process

As expected, the “challenge” workshops which were conducted in March 2023 were most demanding since international participants did not know each other but were supposed to collaborate in teams. Therefore, the identification of a common starting point, context and goal was difficult but could be managed.

All participants worked intensively through the following Design Thinking phases (Client orientation with persona canvas, Ideation phase, refining prototyping and presentations) and could accomplish the course successfully. The individual and external competence validation worked well and there were no substantial differences in regard to the LEVEL5 assessment results between the self- and expert validation. This was probably due to the preliminary delivery of the theory and the assessment methodology. 3-4 participants selected per partner came to the face-to-face seminar (C2) well prepared. All 16 participants were able to successfully (in 3 groups) develop their prototypes.

In this respect, the main learning objectives were achieved.

In contrast to other working groups with partly rather theoretical learning contents and learning contexts, the topic of sustainable development in P&O (as common denominator) was excellently suited to develop concrete prototypes in mixed teams. The topic has undoubtedly a positive connotation, and everyone can contribute something - this facilitates the brainstorming (phase 2) and the coordination processes in phase 3 (selection).

The most important thing for us afterwards is that this seminar clearly proved that training providers can also use the topic of "sustainability" as a platform for attractive training offers also in specific domains like P&O.

2. Contents:

The course was also to some extent about sustainability - only no input was given on the topic but the participants developed their own concepts for educational modules on the topic of sustainability in the region of the training. In terms of content, the sustainability concepts deal in the context of P&O.

Additionally, also methodological contents were delivered in asynchronous online modality such as Competence Oriented Learning and Competence Validation which aimed at:

1. Creating Consciousness for real life assessments outside the academic and formal education world
2. Getting a more holistic approach to learning and development and deeper understanding of the concept of competence
3. Getting prepared for a “self-critical and realistic” self-assessment of the own competence developments in the Design Thinking course

3. Methodology

The design thinking process then represents the central approach to the development of educational products. The approach was well received by the learners, however they also noted that the individual elements of design thinking were not really completely new to them, as some of the design thinking tactics like brainstorming and SWOT analysis are also common in business development and management field. However, it was found that the design thinking as an overall approach could provide a very useful overall frame which can support the work creative tasks rather effectively

4. Outcomes

We could clearly see and assess the competence developments of the students and also our own facilitators. All of them -be it mature trainers/developers or students were able to collaborate successfully in teams and showed rather steep learning curves in regard to:

- Their competence to spot ideas and opportunities
- Sustainable development competences
- Our own team members: Facilitation competences
 - o Structuring and conceptualisation according to competence levels
 - o Development of learning units (H5P and Moodle)

5. Impact

We aimed for a blended learning concept which would also offer the opportunity for some students to accomplish the course entirely online (incl. validation); however, we prefer a modality in which international students would eventually meet. This could be realised within the C2 learning activity.

It was especially important and encouraging that the students received the opportunity to present their results in the international conference.

6. Perspective

We will continue to plan and deliver our courses and learning projects according to this methodology. This relates to learning offers in HE but it should be transferred also to VET and AE, in which specific learning projects on P&O can be initiated. The principle, that the learners design these projects is a great move since this “challenge” step is on the one hand

7. Professional Development

The methodology that we experienced within the PROMOTE programme means a big change from a teacher centred to a learner centred approach. This was very much appreciated by our 4 team members who facilitated the online and F2F phases of the course.

Most of us have heard about it but could not really understand and perceive what was meant with “learner centred” and “learning to learn”. Before transferring this into a course these ideas were more buzz words and concrete examples and introductions were missing. Some team PROMOTE contributed to a full understanding of the feasibility and impact of this kind of learning. The students (as “final beneficiaries” really enjoyed it and could be activated in a way that most of us haven’t yet experienced.

In a nutshell: This was one of the very rare CPDs for educational professional which really brought about something NEW in terms of methodology and teaching and learning approach.

On the one hand we have to trust the self-organisation abilities of the learners and have to refrain ourselves from too much instruction and prepared content. On the other hand we have to “navigate” the learners’ teams through their development processes – which is far more than just a product development exercise but an innovative form of instructional design which is more about moderating and facilitating than about presenting pre-formatted solutions. We also have to accept that we are not in a superior position but should happily welcome ideas and prototypes that are better than what we ourselves would have developed. Once we accept that, our role becomes more that of a colleague and a critical friend than the one of an instructor.

4.8. Student’s Narrative Project Report – “my Story”

by Illaria Fagioli, SSSA

The journey started in our laboratory, the Wearable Robotics Lab (WR-Lab) of The BioRobotics Institute of Scuola Superiore Sant’Anna, in which we work mainly on exoskeletons and robotic lower limb prostheses. Our final aim is to evaluate these technologies in a clinical scenario, which is why we strongly collaborate with P&O personnel. Moreover, we always strive to develop new innovative solutions, from robot design to embedded algorithms. To pursue effective rehabilitation, we every day face the challenge to build a robotic prosthesis or orthosis which can be as efficient as possible. Moreover, the robot should also have a high level of acceptability from the end-users' perspective. In this framework, it is compulsory to be innovative to find both efficient and aesthetically pleasant solutions, and to develop a device that can comply with all the engineering design requirements maintaining low encumbrance and weight. The importance to work in a team is paramount to developing a product, mainly for interdisciplinarity. Working in an international team gives you also the feeling to be part of something bigger, creating bonds and collaborations between colleagues who believe in the same vision of a future improved healthcare system.

When starting this journey, the backpack was full of many engineering concepts, but we were missing some information about the medical world of amputation, as well as the design thinking mindset. We gained a lot of insights during the course, and during the final event, we had the chance to know more about sustainability and how to apply it to different scenarios. We learned that the concept of sustainability should be considered in any design choice and nearly every aspect of our lives. It was great to enrich ourselves in a diverse environment, by collaborating with many partners in different research fields.

At first, it seemed it was difficult to find common points and deeply understand the concepts of courses far from what you are working on, but in the end, the outcomes were exceptional. The project was enjoyed by all the others: students at home found the courses clear and enjoyable, and the colleagues in the European teams were positively impressed. The final event in Gottingen was so good to connect with people and bridge many disciplines altogether. For sure, we all took home a lot of enthusiasm, willing to research and explore new possibilities. We confirmed our deep belief that collaboration and sharing is the only way for developing something that can really change the world.



Figure 1 Alessandro and Ilaria from the WR-Lab enjoying one of the philosophical road trip stages during the final event in

5. Evaluation and Lessons Learnt

This Piloting Evaluation concerns participants' perspective on the three pilots that were developed within the framework of PROMOTE project. The objective of the analysis is to enable PROMOTE partners and future external providers to improve and upgrade the courses and the educational program for future students. Indeed, the overall analysis will include final recommendations for further use.

The pilots were: Partial Foot Amputation (PFA), Business Management (BM) and Design Thinking for Social Entrepreneur (DTSE).

The Partial Foot Amputation course was held partially online (asynchronously) and partially face-to-face (F2F) during a final practical training week in March 2023, which took place in Geel, Belgium. The methodology used to get feedback was via an online survey at the end of the F2F event.

The Business Management course was held online asynchronously. The feedback was collected afterwards via an online survey, but for the purpose of this report, we will base our analysis on the statistics provided by the learning platform, since the online survey received a limited number of responses.

Finally, the Design Thinking for Social Entrepreneur course consisted of a series of 4 online synchronous learning units of four hours each in Design Thinking following DBCL learning methodology. In addition, selected students (3 per partner) came together in a 5-day F2F event, an intercultural co-creation week in Göttingen, Germany, in June 2023 for prototyping workshops and presentations during an international conference. Feedback was collected after the last online session via the Mentimeter app, which allows simultaneous interaction for the participants, and via an online questionnaire for those who participated in the F2F week.

5.1. Results of Partial Food Amputation

This analysis treats PFA course and workshop based on 12/12 student surveys that were filled by students who participated in the F2F workshop session.

Students filled out the survey that has six sections/categories. In the following pages every single one is reported. Average grade for all categories was 4,56/5 which is an excellent grade for this course.

This survey had six sections. The sections referring to:

1. The course contents
2. Learning and teaching arrangement
3. Satisfaction with lecturers/trainers
4. Exam
5. Workshop instructors and materials
6. General workshop

These surveys have been filled by 12 of 12 students who completed their participation in the Geel PFA workshop in March 2023.

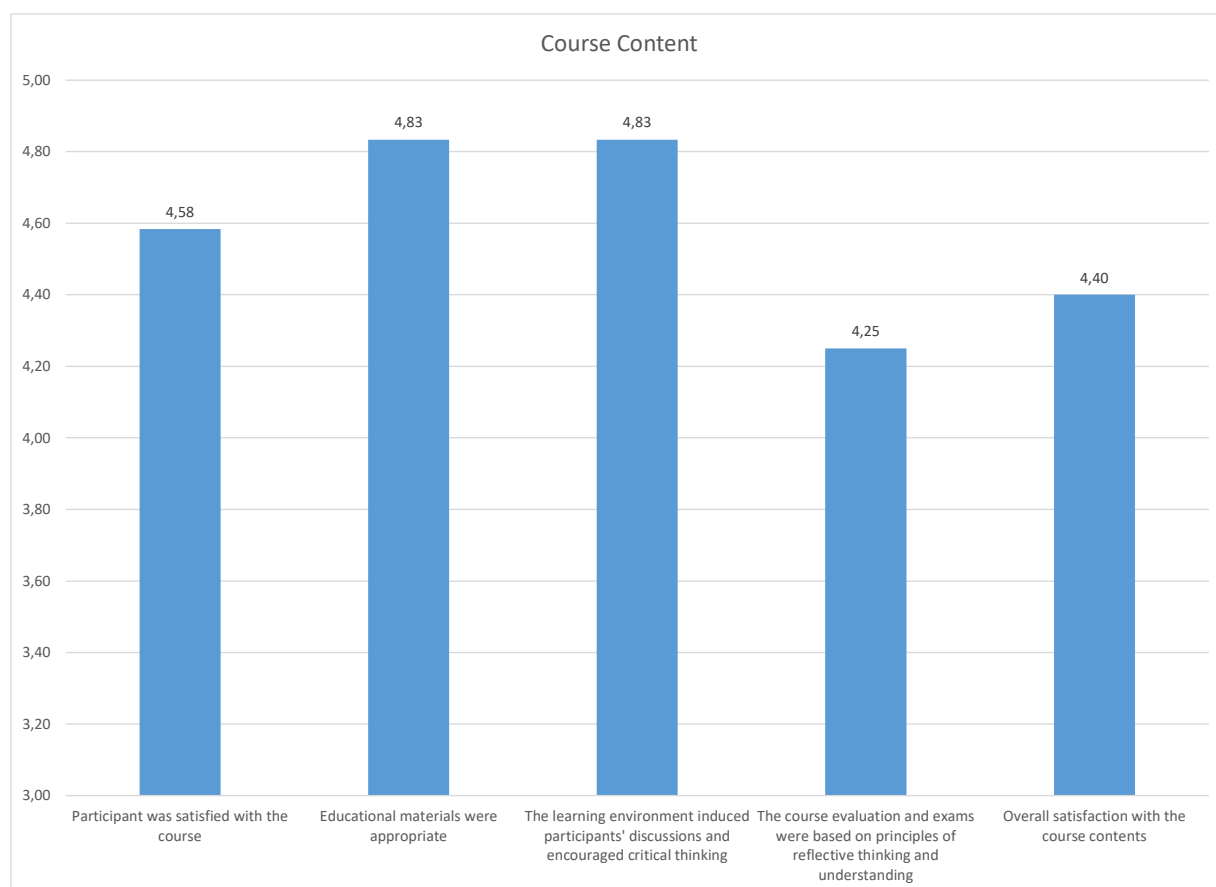
Section I – Course Content

The following table shows those grades by subject:

#	Course content	Course Lecturer/Trainers (Mr. Munoz, Mr. Murtezani, Mr. Švigir)
1	Participant was satisfied with the course	4,58
2	Educational materials were appropriate	4,83
3	The learning environment induced participants' discussions and encouraged critical thinking	4,83
4	The course evaluation and exams were based on principles of reflective thinking and understanding	4,25
5	Overall satisfaction with the course contents	4,40
	Average grade for subject	4,58

In this section we provide students with five statements which you can use in the second column of previous table.

The following chart shows the overall student opinion on course content:



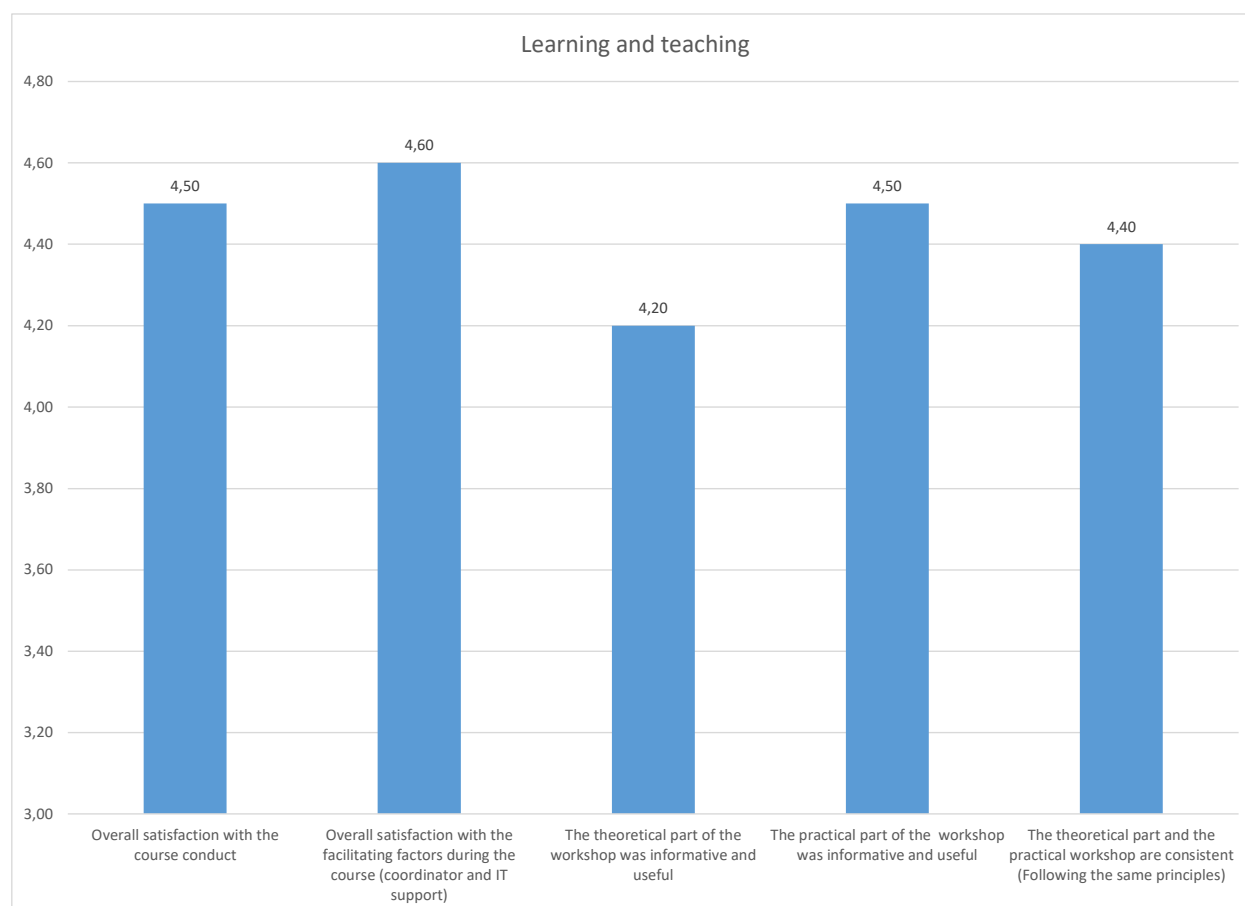
Course content has been evaluated with the average grade 4,58. The highest average grade has been given to the statements: *Educational materials were appropriate & The learning environment induced participants' discussions and encouraged critical thinking (4,83)*. The average grades of all other statements indicate that there is some room for improvement, but generally, students were satisfied with this course content according to average grade.

Section II – Learning and teaching arrangement and evaluation

The following table shows those grades by category:

#	Teaching methodology and support	Course Lecturer/Trainers (Mr. Munoz, Mr. Murtezani, Mr. Švigir)
1	Overall satisfaction with the course conduct	4,50
2	Overall satisfaction with the facilitating factors during the course (coordinator and IT support)	4,60
3	The theoretical part of the workshop was informative and useful	4,20
4	The practical part of the workshop was informative and useful	4,50
5	The theoretical part and the practical workshop are consistent (Following the same principles)	4,40
	Average grade for subject	4,44

The following chart shows the overall student opinion on different tools used by lecturers:



When it comes to the **Learning and teaching arrangement and evaluation**, the average grade for all categories is slightly lower than for the first set of evaluation criteria. (4,40)

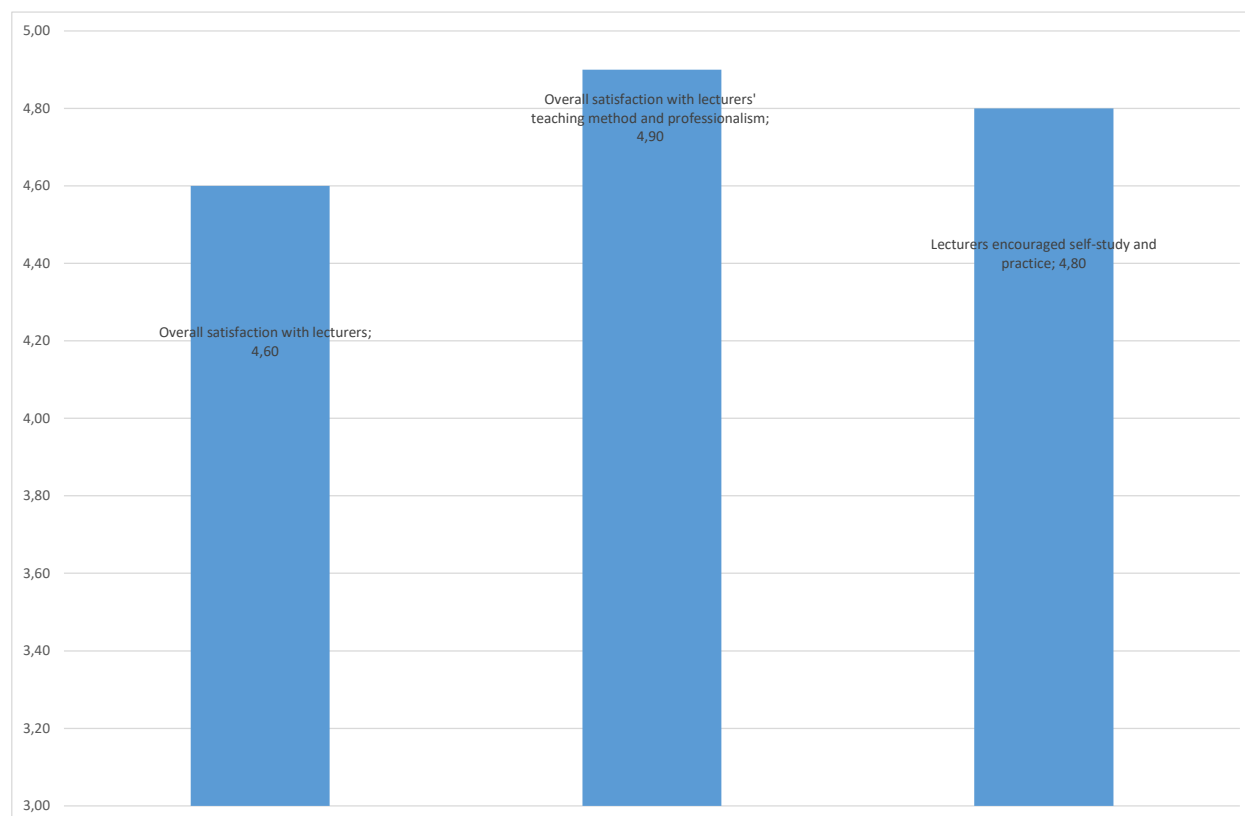
All grades are in the range of 4,20 – 4,60 which tells us that our lecturers did a very good job in education arrangement and evaluation.

Section III - Satisfaction with lecturers/trainers

The following table provides a preview of all the statements for every separate evaluation criterion.

#	Satisfaction with lecturers/trainers	Course Lecturer/Trainers (Mr. Munoz, Mr. Murtezani, Mr. Švigir)
1	Overall satisfaction with lecturers	4,60
2	Overall satisfaction with lecturers' teaching method and professionalism	4,90
3	Lecturers encouraged self-study and practice	4,80
	Average grade for subject	4,77

The following chart shows the overall student opinion on different tools used by lecturers:



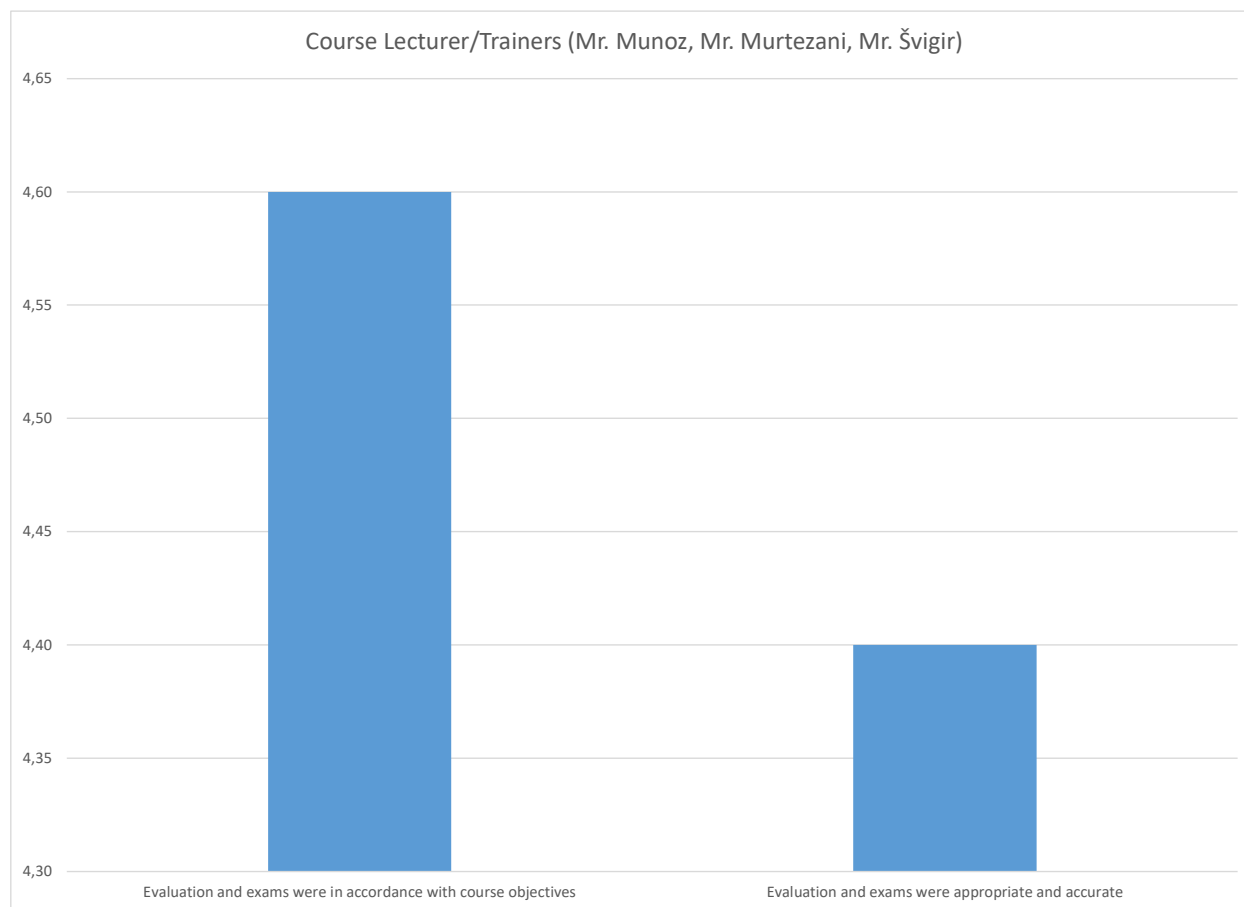
The part **Overall satisfaction towards course contents and course arrangement** has an excellent average grade for all criteria (4,77), which shows a very good level of satisfaction with the teachers/trainers we engaged in this course. We should use them in the future for this course, if that will be possible from their side.

Section IV - Exam

The following table provides the preview of all the statements:

#	Exam	Course Lecturer/Trainers (Mr. Munoz, Mr. Murtezani, Mr. Švigir)
1	Evaluation and exams were in accordance with course objectives	4,60
2	Evaluation and exams were appropriate and accurate	4,40
	Average grade for subject	4,50

The following chart shows the overall student opinion about exam:

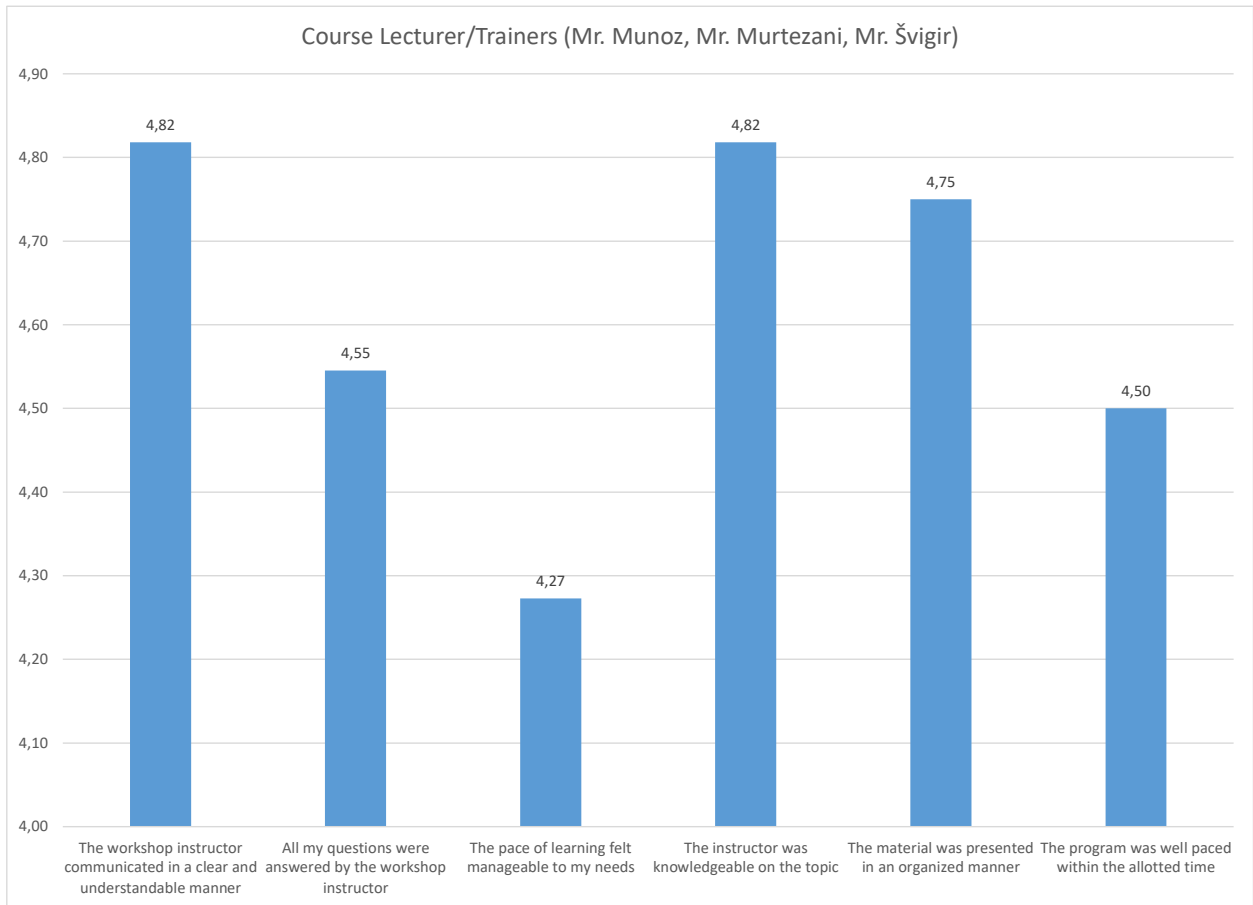


In this pilot course we have grades that are between very good and excellent. Average is 4,50. This is very good grade that shows that exam had strong connection with their theoretical and practical education.

Section V - Workshop instructors and materials

The following table provides the preview of all the statements.

#	Workshop istructors & materials	Course Lecturer/Trainers (Mr. Munoz, Mr. Murtezani, Mr. Švigir)
1	The workshop instructor communicated in a clear and understandable manner	4,82
2	All my questions were answered by the workshop instructor	4,55
3	The pace of learning felt manageable to my needs	4,27
4	The instructor was knowledgeable on the topic	4,82
5	The material was presented in an organized manner	4,75
6	The program was well paced within the allotted time	4,50
	Average grade for subject	4,68

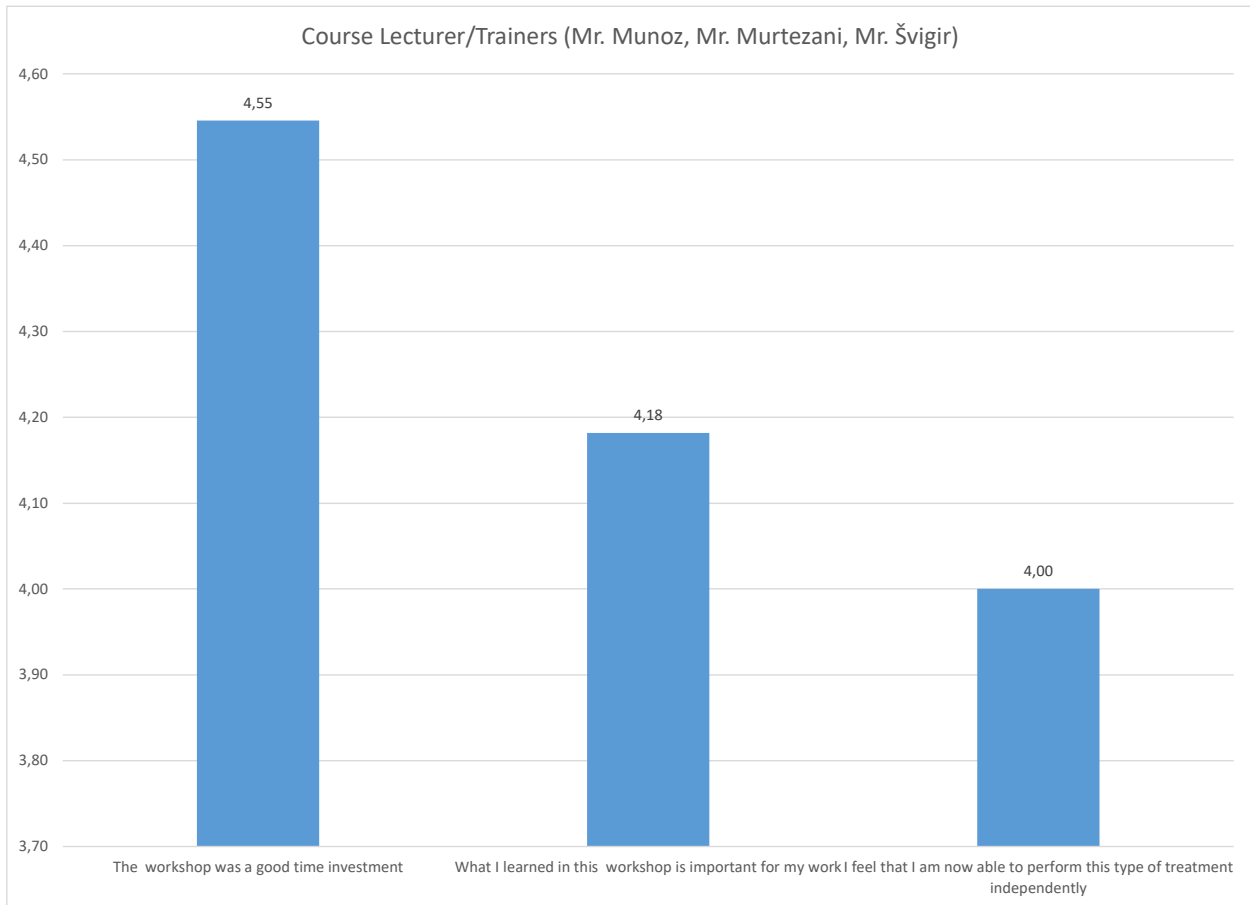


Workshop trainers and materials is evaluated with average grade of 4,68. We can say that our pilot students awarded their trainers for the efforts they put in practical understanding of PFA treatment and procedures. Students are especially satisfied with communication with their trainers, and their knowledge about presented topics.

Section VI – General workshop

The following table provides the preview of all the statements.

#	General workshop	Course Lecturer/Trainers (Mr. Munoz, Mr. Murtezani, Mr. Švigir)
1	The workshop was a good time investment	4,55
2	What I learned in this workshop is important for my work	4,18
3	I feel that I am now able to perform this type of treatment independently	4,00
	Average grade for subject	4,36



General workshop is evaluated with average grade of 4,36. This is a slightly lower grade than others. This is understandable since most of the students participated in such a course for the first time, and since most of them are still students they did not have the right to work with patients without supervision, and some of them are not sure if they will be able to repeat the procedure if they have their own patient. Even this is the lower criteria grade it is still between very good and excellent.

We also ask our students about duration and complexity of the course. Here are the results:

#	Organization	1	2	3	4	5	6	7	8	9	10	11	12	Average
1	Given the topic, this seminar was: Too short, Appropriate lenght, Too long	2	2	2	2	2	2	2	2	1	N/A	2	2	1,9
2	The theoretical part was: (1 - Too basic; 2 - Appropriate; 3 - Too advanced)	2	2	2	2	2	2	2	2	2	N/A	2	2	2,0

We can say that both duration and complexity of theoretical part of the course was appropriate.

Comments and suggestions

Students’ comments and suggestions for the pilot can be extremely useful to deliver this course in the future. They can help facilitators to correct mistakes and to pick up good ideas that can be applied in the future. Here are comments and suggestions that students wrote at the end of evaluation by answering four simple questions:

- 1. What did you like the most/what did you enjoy the most/what do you consider to be the most positive aspect of this course? Please, list at least three things you liked the most.**

- International cooperation and its exchange across Europe, new insights into troubleshooting lamination errors, the different types of devices in Europe for one diagnosis, absolutely great hospitality
- Patient contact
- International contacts
- Professional/ interesting teachers with a lot of knowledge
- Theoretical study material was available in different forms "
- The material was good
- When I started with these lessons I had almost no knowledge about PFP (*partial foot prosthetics*) but during the course I learned so much new and interesting things. Techniques and biomechanics principles I wasn't even thinking that it would be affected depending on the type of prosthetic. Because of this course I can make a better decision for my specialization in the next 2 years.
- Good communication on specific techniques used at stages of the device production, open to all questions and discussions, plenty of time for practice.
- I appreciated the fact that we started from the basics even on the practical classes (but not focusing too much on them), because I was worried that if I didn't remember something from the theoretical part, I would struggle to follow the practical
- Online course
- Networking, learning from the practical instructors, learning other methods

2. What did you like the least and what do you consider to be the least good about this course? Please, list at least three things you disliked the most.

- In practice, it would have been better if we could have worked in parallel with the teachers instead of listening on the one day and then to do it on the other - this made the waiting breaks longer.
- Help in finding accommodation where you could sleep cheaply.
- The last day of the practical week was a bit of a rush, school materials didn't always work well
- I expected a different course, more focused on how to design prosthesis from an engineer point of view
- There was a lot to do as students who still have a lot to learn it was sometimes a bit stressful to complete tasks on time
- Maybe would be better to have clear time limits to reach each step, since it can easily feel like you still have plenty of time but at the end you need to hurry
- I expected it to be more practical
- Some theoretical information was different than those we learned, patients has not been able to walk with prostheses because of fracture

3. Do you have any suggestions on how to improve the aspects of the course you didn't like or suggestions about things that you did like and you think we should continue with?

- In our class in Germany, the lecturer explains a few steps and we carry them out immediately afterwards. As a result, the students work continuously and do not have to listen for 2.5 hours without having worked themselves. Cooperation with student unions or cheap hostels
- Let the patients come more at the end of the class
- Please, specify the aim of the course better
- More practical things, not only in the workshop
- Really enjoyed the practical part with the instructors. Learned a lot.

4. Do you have any additional comments and suggestions?

- Thank you very much for this really great experience, the international exchange and the many great encounters that came about through this course! I am glad to have been there and thank all organizers and lecturers. I can only recommend everyone to take this course! :) Best regards!
- Please, specify the aim of the course better
- Thank you! :)
- Only after the course started did you announce that the theory exam would not be sufficient for a certificate of participation. It should have been said before the course started
- Thank you very much for this workshop. :)
- N/A
- I just would love to say that thank you for making me part of this program.

Conclusion

The survey shows high satisfaction with the course among the students. In the first part, students were asked to grade different aspects of the course, grouped into six sections. All of the six sections had average grades above 4 (the maximum is 5), and four out of six sections presented average grades equal to or above 4,50.

It is worth pointing out that the aspects with the highest grades observed were “Overall satisfaction with teaching method and professionalism” with 4,90; “Educational materials were appropriate”, “The learning environment induced participants’ discussions and encouraged critical thinking”, both with 4,83; “Instructor communicated in a clear and understandable manner”, “The instructor was knowledgeable on the topic”, both with 4,82.

All of the above aspects seem to be interconnected by the ability to engage both of trainers and learners. The high level of encouragement for critical thinking shows that now learners are instigated and have the foundational tools to delve more into the area of knowledge proposed by the course.

The session with the lower grades observed was “General workshop”, with 4,36, which is understandable since for most students this was the first contact with such a course. Nevertheless, the grade is still between “very good” and “excellent”.

The second part of the survey had open questions where students could make comments and suggestions. The positive trend of instigating learners to seek knowledge can also be observed there. According to the answers, students appreciated most the network they could develop, and the foundational knowledge that was provided to them, ranging from the basics to practical classes. Two students especially appreciated the device production techniques, and three others especially enjoyed the material provided and the online course.

There is also room for improvement according to the points raised. When asked what they liked the least about the course, four students mentioned time-management issues. A student felt “It would have been better if we could have worked in parallel with the teachers instead of listening on the one day and then to do it on the other”. Another student said there was a lot to learn, and because of that sometimes was stressful to complete the tasks on time, which can be complemented by another statement: “Maybe would be better to have clear time limits to reach each step, since it can easily feel like you still have plenty of time but at the end you need to hurry”. Two students also had different expectations about the content; one student expected it to be more practical, while another expected to learn more about designing prostheses. A student asked the team to specify the aim of the course better.

Some participants requested more practical lessons, but in the end, the following statement can summarise the feeling the students had after the practical lessons: “Really enjoyed the practical part with the instructors. Learned a lot.”

Overall, the evaluation of the Partial Foot Amputation pilot is very positive, since the course met participants’ expectations to learn new things and practice skills, leaving students with the adequate tools to act professionally and to acquire more knowledge in P&O.

5.2. Results of the Business Management Pilot

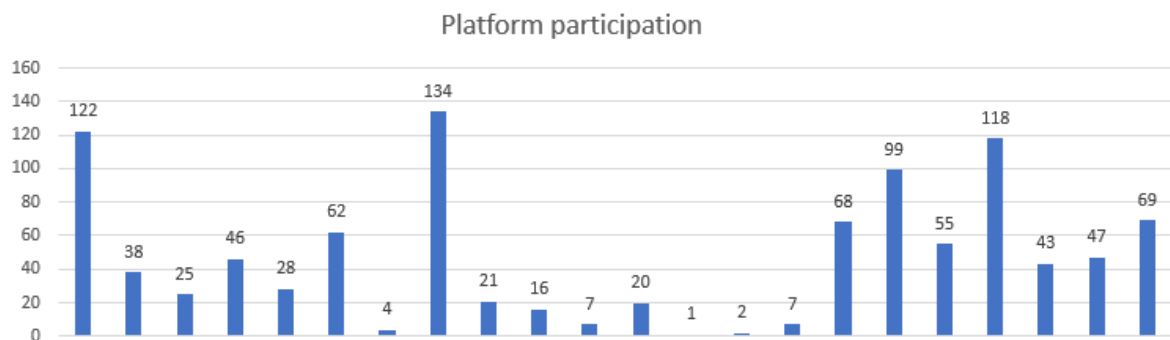
Hereby we present the results obtained from the BM pilot. This was an asynchronous online course. Applicants received access to the learning platform upon admission, after which they had full liberty in choosing when to access. Participants should expect to need 50 to 60 hours in total to complete the course.

After completing the course, students were sent an online survey to give their feedback. However, the online survey received only a few answers. For this reason, we will not base our analysis on the survey, but rather on the statistics provided by the learning platform.

In this regard, we can infer that a less interactive type of course entailed less feedback from the participants. The level of participation was high, as we shall see, but for future courses, we can consider having more interactive sessions, which may reflect on students’ feedback or to foresee the feedback as compulsory.

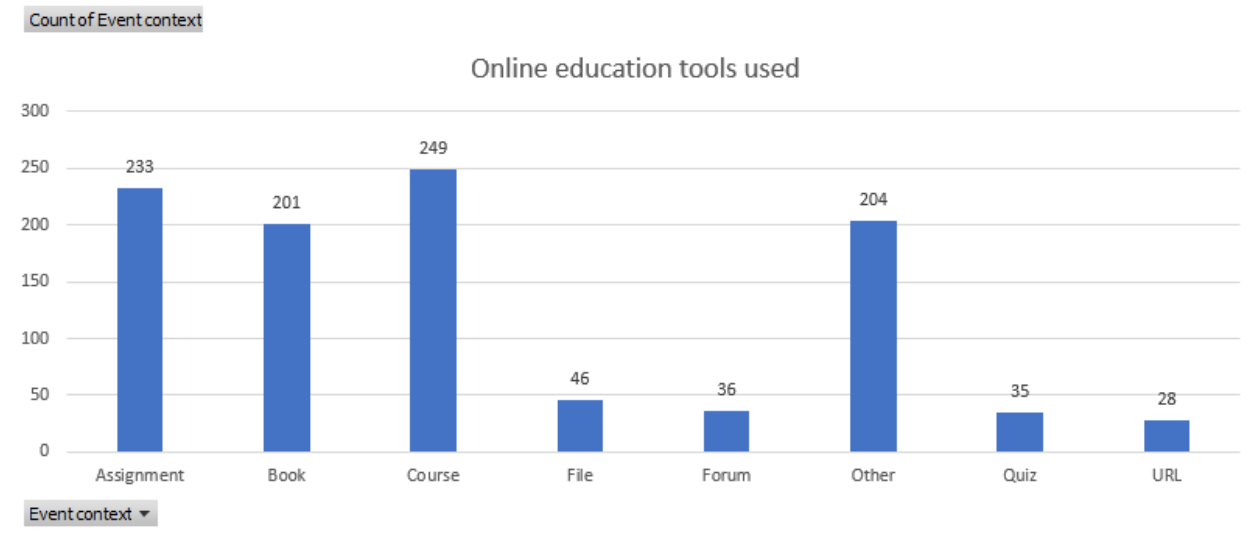
Results

Count of User full name



This table shows the number of accesses per participant, participants’ names are not disclosed due to privacy. Each column represents one participant, the course had a total of 22 participants. All 22 participants have entered the platform.

Adding up all accesses, we can see that the module was accessed 1032 times. It is possible to observe that the majority of participants made consistent use of the platform, with the exception of five participants who entered the platform less than ten times. The average access per participant is 46 times, which is a high average.



The next table expresses the type of online education tools used, and how much each tool has been effectively used. 8 types of online educational tools were ranked. Tools like Assignments, Books and Courses were used a lot, which indicates satisfaction with these types of tools.

On the other hand, Files, Forums, Quizzes and URLs were little used. We highlight the minimal use of Forums, which are meant to create interaction between participants, especially in a course that is asynchronous. This data can be used in future courses to help create more engaging forums.

Conclusion

The above results demonstrate a high usage of the learning platform and, consequently a high average of access per participant. Only a few participants entered the platform less than 10 times, which shows that those students were not able to engage.

Despite the high level of participation, only a few students gave their feedback via the proposed online survey, making it unviable for analysis. This also demonstrates the importance of providing more interaction in order to keep participants motivated.

5.3. Results of the Design Thinking for Social Entrepreneur pilot

In this section, we will present the results obtained from the DTSE pilot. The course was held partially online (synchronously) and F2F during a 5-day event in Göttingen, Germany, in June 2023. Participants had one-half day of online lessons per month, for four consecutive months.

At the end of the last online session, trainers asked participants to enter *Mentimeter*, an online app which allowed them to simultaneously give their feedback. The survey was composed of multiple-choice questions and open questions, to evaluate the participants’ level of satisfaction with the course. After answering each question, the replies were presented to the class in a slide format and further discussed with the audience.

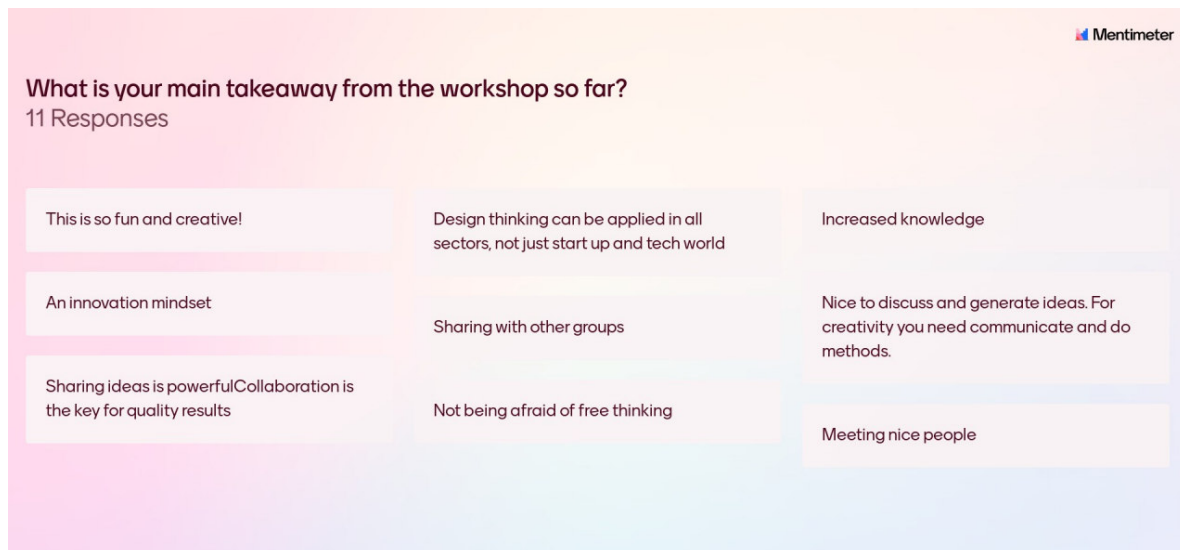
15 out of 16 participants of the online lessons answered the survey.

The intention of this evaluation is to enable improvements for the next generations that will lecture or participate in the course and to gather useful recommendations for future similar courses.

Results

(11/15 respondents)

The students were first questioned what the main takeaway of the workshop in their opinions was. Answers can be grouped into three categories: creativity & innovation; collaborative work and the applicability of design thinking in several areas of knowledge.



The results show a great appreciation for the possibility of in-live exchange with others since being with people from different backgrounds can stimulate the generation of ideas.

A takeaway students will have from the course that is worth pointing out is the multidisciplinary character of designer thinking. The following comment expresses this idea: “Design thinking can be applied in all sectors, not just start up and tech world.”.

Did you know about Design Thinking before taking part in this workshop?



(15/15 respondents)

It is possible to see with this question that nearly half of the respondents did not know anything about Design Thinking before taking the course. This question should be read in conjunction with the previous, and with the questions that follow. As we will see, for the students who already knew Design Thinking, it made it possible for them to deepen their knowledge, and for the students who had not had any contact with Design Thinking before, it presented them with a new set of skills that may be useful in their future careers.

The question also shows the interest of participants in learning new things, that go beyond their area of knowledge.

Do you agree or disagree with the following statements?



(12/15 respondents)

Then, participants were asked if they felt they had learned what Design Thinking is, and the answers were mostly positive. Participants also agreed that they gained a general understanding of the process, however, the last statement received fewer positive answers than the first one.

Although results do not show a remarkable disparity between the answers to the two statements, we aim to improve in providing a general understanding of the Design Thinking process for future courses.



(13/15 respondents)

Despite the last question, answers remained very positive regarding the enjoyment of learning about the Design Thinking process. In fact, there were no negative answers reported to this question, which demonstrates high satisfaction among the participants.



(12/15 respondents)

We presented a set of statements, asking participants to give their opinion from “strongly disagree” to “strongly agree”. All the statements had very positive results, being the most positive “The overall energy was engaging and motivating”, grading 4,8 out of 5. It is important to consider that this was an online course. It is known that online courses may struggle sometimes to keep the students motivated, so we acknowledge here the importance of delivering the course in a synchronous format, i.e., with simultaneous participation of students and trainers. This can be read in conjunction

with the takeaway of students from the course since students appreciated the possibility to collaborate with different people.

Also, “Methods & Materials were helpful during the Design Thinking process” and “Time management during the workshop was reliable” were highly appreciated, both with grades of 4,7 out of 5.

The statement with less positive answers was “The overall workshop fulfilled my expectations”, grading 4,5 out of 5, which indicates a point to be remarked, but still shows that expectations were positively met during the course.

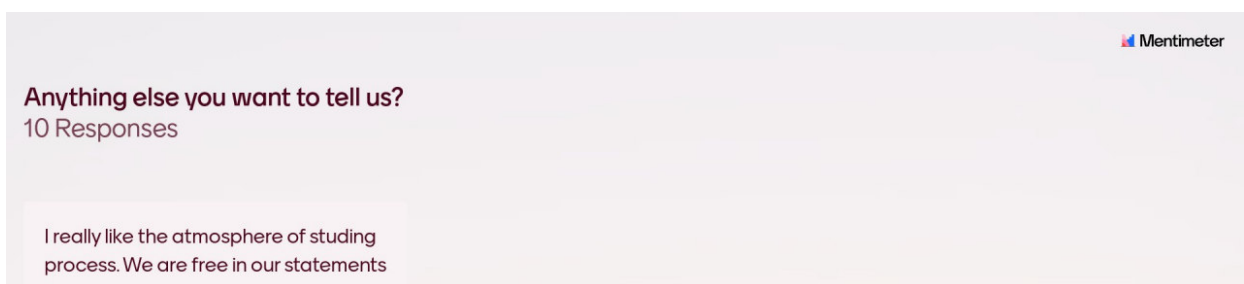
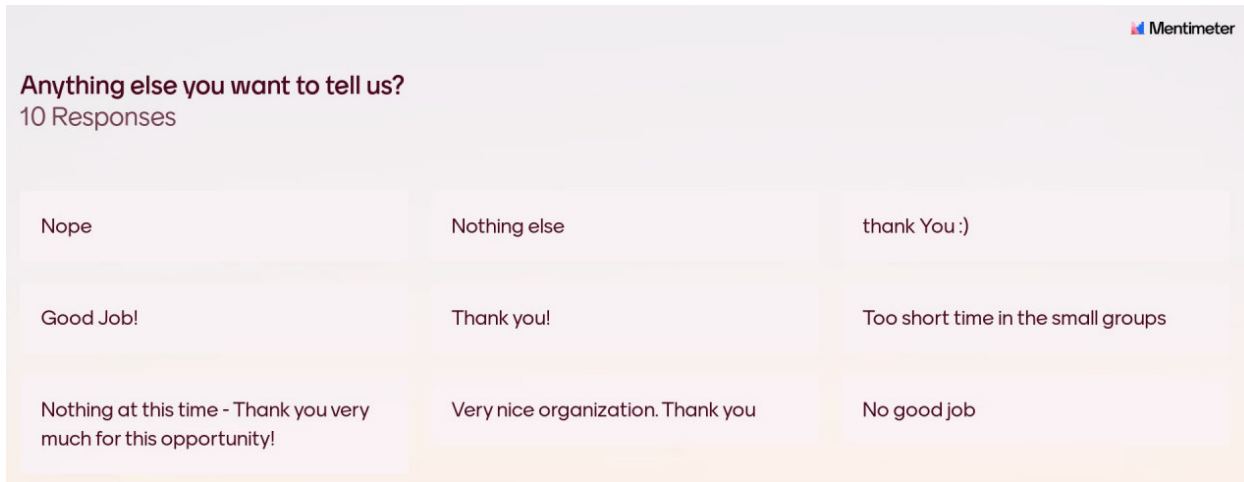


(12/15 respondents)

This multiple-choice question allows us to see where there is room for improvement. Statements that received the most votes were “Workshop content” and “Methods and Materials”, both with 2,5 votes.

Following, students voted for improvement on “Time management” and “Facilitation”, both grading 1,8.

Lastly, only a few students saw room for improvement in “Energy” and “Pacing”, each received 1,4 votes, which agrees with the feeling of engagement and motivation during the sessions that was above mentioned.



(10/15 respondents)

In terms of additional comments, students overall complimented the organization of the course. A student commented “Too short time in the small groups”, which can be taken into consideration for future courses.

In addition to the live pool delivered during the last online session, a feedback round also took place during the last day of the F2F event in which a selection of those students took part in it. It was in the form of a focus group discussion with 15 students.

Below, questions are reported with the most significant answers:

- 1. What do you consider the greatest achievements of the course for you personally?**
 - I was able to work in the small group and develop a tangible prototype.
 - To be not afraid of speaking out and presenting your ideas regarding the project concept.
 - Inspiring to meet people with different experiences than mine and learn more.
 - I think that I can implement the methodology in many different fields and with different types of learners.
- 2. What do you consider the weakest points of the course?**
 - Smaller groups would be a nice-to-have option ... for further exchange.
 - I would like to shorten the duration of the given course.
- 3. Two things that you learnt / that you take home**
 - Prototyping, Pitching.
 - A new approach and a great knowledge exchange.
- 4. Your recommendations for future courses of this type**
 - Shorten the duration

- It would be nice to extend the duration of course. Especially regarding the group dynamic, a longer time frame could enhance the impact further.

5. Do you want to make any other comments?

- Great training overall. It was especially nice to combine it with the reveal15 conference. We had an opportunity to present it to other professionals there and learnt about how they applied design thinking in their projects.

Feedback from the F2F learning event was extremely positive and students felt enriched by the intercultural opportunity and the co-creation space. As suggestions for improvement, it is useful to note that a few students expressed the wish to have smaller groups to deepen the connection among participants, and to have more time for group sessions but a shorter duration of the event overall.

Conclusion

Results obtained from the online survey were very positive. Students showed a high level of engagement and interaction. Less appreciated, but still very positive aspects, regarded general understanding of the process and fulfilment of students' expectations, which can be a remark for future courses.

Overall, students who hadn't had contact with Design Thinking before expressed they had the opportunity to learn a new skill. This fulfils the idea of the pilot, which is not to restrict participants' knowledge to a single course but to present them with new possibilities so that they can dig deeper into knowledge with the tools they have acquired.

Feedback from the F2F event shows that it was extremely appreciated by the students since they had the opportunity to experience a very enriching intercultural co-creation opportunity. In particular, they praised the opportunity to connect it with an international conference where they could present the results of their learning to the entire audience.

5.4. Conclusion and Recommendations

The three pilot courses proposed by PROMOTE had very positive feedback. The Partial Foot Amputation had a high level of satisfaction among participants. Students perceived trainers as highly qualified and believed they acquired foundational knowledge during the course, other than having the opportunity to exchange with students from different backgrounds.

The Business Management course had a high level of participation, and statistics show that participants appreciated assignments, books and courses as tools. However, as the feedback was extracted only from statistics of the learning platform, we were not able to get any further comments/suggestions.

Lastly, for the Design Thinking for Social Entrepreneur course, students appreciated the multidisciplinary character of the course, showing how Design Thinking can be applied in their area of knowledge. Participants were overall satisfied with the learning path they had, and especially with the possibility to exchange ideas with others, also in an international event in presence.

It is possible to observe that the amount of feedback varies on how the module was carried (F2F, online synchronous, online asynchronous), which is something to take into consideration for future courses.

Some aspects related to the courses that require more attention have emerged from the evaluation, specifically:

- Time management in the PFA course;
- Number of practical lessons in the PFA course;
- Little interaction among participants in the BM course;
- Little feedback in the online survey in the BM course;
- Overall duration of the DTSE course;
- Workshop content and methods & materials for the DTSE course.

Based on the above evaluations on each of three pilot course, and an internal feedback and reflection session was held with the teachers and trainers involved with the pilots. The table below provides a summary of lessons learnt from a educator’s perspective

Category	Lesson description	Success/ Problem	Impact	Recommendation
Learner Recruitment	High diversity and multidisciplinary learners	Success	The diversity of the learners enriched the discussion and collaboration among them. The mix of higher education students and professionals create an additional layer of learnings. This was especially prominent during discussion and group work, where practical insights and experiences were shared from the professionals and HE students were able to provide support on online and digital tools. The multicultural and multidisciplinary aspects also created an environment for inspiration and innovation.	To allow more interactions among different types/background of learners and to create and encourage more off-line/asynchronous communication and discussion among learners like online forum and discussion room in moodle platform.
Learner Recruitment	Lack of P&O professionals and practitioner for face-to-face component	Problem	Some of the learners who were working professionals were not able to attend the practical workshop and the face-to-face session due. Both of the blended pilots, PFA and Entrepreneurial Mindset & Design Thinking, involved a 5-day in person session which presented a challenge for working professionals to be absence at work and family.	With PROMOTE being a trial course for the P&O sector, stronger communication and collaboration with companies and clinics in the future would increase the support they give for their employees to attend the PROMOTE course as continues professional development.
Learners Engagement	Difficulties in sustaining learners’ interests and engagement in asynchronous courses and prolonged online synchronous session	Problem	While a fully asynchronous course provided a great flexibility to learners and allowed for a greater reach for working professionals, it was very difficult for trainer to actively monitor learners’ progress. Much of o communication channels were based on the learners’ motivation, e.g. responding to online discussion and posting questions/feedback. It is also observed that when synchronous sessions were over 2.5/3 hours, leaners began to lost interests the activities, turn off their cameras and	Synchronous sessions should be kept no longer than three hours with multiple short breaks in between rather than one long break. For asynchronous course, we would encourage leaners to join online discussion as part of

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			some even signed off from the sessions.	course requirement. Further, providing a trainer-learner online meeting/evaluation in a half way point of the course may also increase retention of learners.
Learners Engagement	High level of involvement and synergy among learners during face-to-face sessions	Success	The learning atmosphere and teamwork were very positive as learners had been attending and collaborating in the online sessions together. The online sessions laid the groundwork for team-building and active participations for the in-person sessions. This in turn helped the teachers to save time for ice-breaking and be more effective in delivering the content and creating better learning experiences. Learners were able to better utilised their time also when creating completing their group assignments as they had already worked with the group prior.	To continue blended learning approach with greater internality in facilitating communication and collaboration online and then face-to-face.
Digital Transition	Effective online collaboration	Success	The use of online platform and various digital collaboration tools (like moodle, Zoom and Miro) were very much appreciated by the learners and teachers/trainers. With the CDP for that the teachers attended before developing the pilot course, they were able to navigate through various tools and utilised different functions and features. With some basic guidance and explanations from the teachers, the learners were able to use those function, participated in various online group-work and completed all the assignments within the synchronous sessions' time frame.	While learners attended the synchronous sessions received instructions on how to use the digital tool, it will be beneficial for future learners and users of the PROMOTE learning platform to receive some instructions videos or manual in using the platform and tools.