

SciCultureD C2 Evaluation Report

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Key:

SI – Staff Interview

FN – Field Notes

FG – Focus Group (Pre or Post)

PL - Photolog

S – Staff

P – Participant

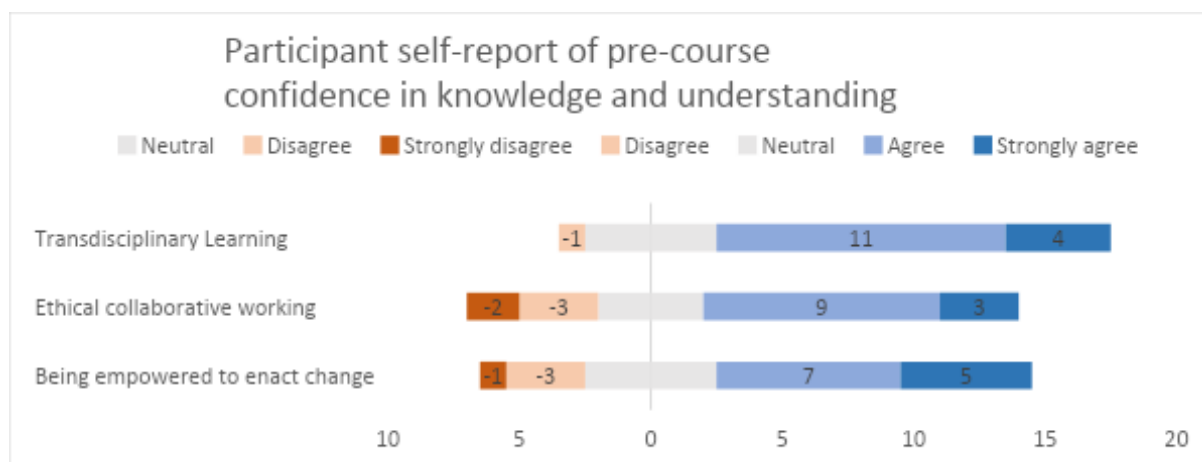
PreQ – Pre-course questionnaire/survey

PostQ – Post course questionnaire/survey

1.a What are participants' initial perspectives on:

The responses are spread out across the 1-5 scale, ranging from high to low, and the most scores indicate mid to high-level confidence and expertise.

Figure 1



Co-funded by
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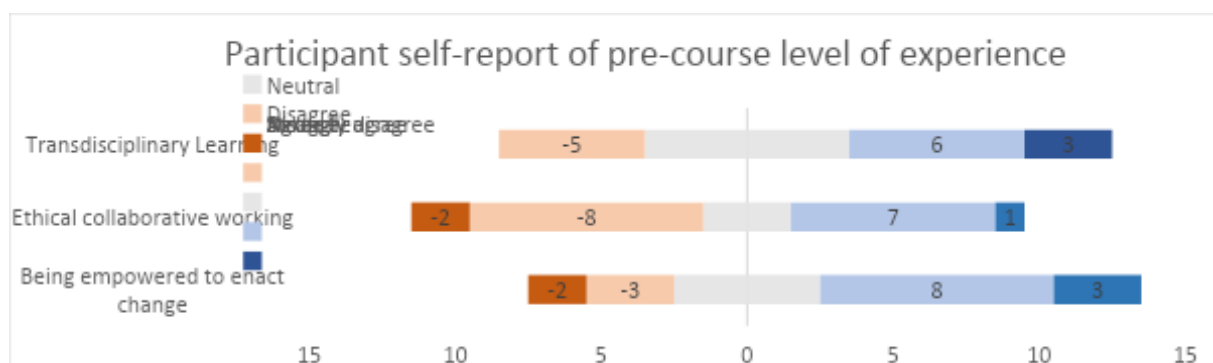
SciCultureD is an Erasmus+ project, led by the University of Malta together with Western Norway University of Applied Sciences, Norway, city2science, Germany, and Science View, Greece. It aims to nurture transdisciplinarity and innovative problem solving through the blending of arts, science and entrepreneurship. Funded by the Erasmus+ programme of the European Union. This project has been funded with support from the European Commission. This publication reflects the

views only of the author, and

the Commission cannot be held responsible for any use which may be made of the information contained therein.

Confidence in knowledge and understanding of	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Transdisciplinary Learning	0	1	5	11	4
Ethical collaborative working	2	3	4	9	3
Being empowered to enact change	1	3	5	7	5

Figure 2



Level of experience of	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Transdisciplinary Learning	0	5	7	6	3
Ethical collaborative working	2	8	3	7	1
Being empowered to enact change	2	3	5	8	3

1.a.i knowledge of, and understanding about transdisciplinary learning in science, entrepreneurship, the arts, and design thinking?

Most participants felt confident in their knowledge and understanding of transdisciplinary learning before the course, with 15 out of 21 agreeing or strongly agreeing to the statement, while only 1 disagreed. However, fewer felt *experienced* with transdisciplinary learning, and only 9 agreed or strongly agreed, while 5 disagreed and 7 were neutral.

In the focus group interview, the voluntary participants were asked what the term 'transdisciplinary' means to them. Their answers were as follows:

- "For me it's working with practitioners." (PreFG, C2, p1)
- "For me, it's to ask questions of other disciplines (inaudible)." (PreFG, C2, p1)
- "(...) bringing together and finding crossover and like always working, not just like singularly or siloed." (PreFG, C2, p1)
- "(...) bringing different opinions together." (PreFG, C2, p1)

The interviewed participants were also asked to give examples of working in a transdisciplinary way. One participant emphasised that her students deserved to be taught the best way, which she defined as a combination of science and theatre. A different participant had experiences with challenging communication in a transdisciplinary project, involving a university, actors from the city and an administration: "it was very demanding to get them all [to] speak the same language." (PreFG, C2, p3). Several participants pointed out in different ways that, from their experience, working transdisciplinary is challenging: "to work (...) with transdisciplines always asks you to do something different and a bit uncomfortable, and sometimes people are not ready for that." (PreFG, C2, p4); "it might be very (...) fearful for people because it's always a bit on the edges of all these different disciplines" (PreFG, C2, p4). One statement emphasised pointing out the benefits of transdisciplinary work, while an arts education teacher stated "my experience is that some students love it and some students hate it" (PreFG, C2, p2).

Figure 3



1.a.ii ethical, collaborative working?

The low score of the participants experience in this realm might be something that was pointed out in the focus group interview: "It's not an explicit part in many of the projects, I would say. You actually have it in mind, but it's not explicitly

required or, or, or addressed or formalised or something like that.” (PreFG, C2, p9). It was also stated that it might depend on the field you’re working in. Another participant reflected on that what this kind of collaboration means for a given group is rarely addressed: “it’s also really difficult to like even organise the equitable listening space (...) where people can also speak (...) in an even way” (PreFG, C2, p10).

Figure 4



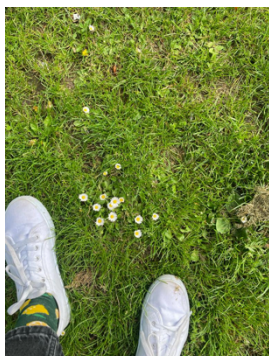
“Wish there was more time for commenting on and developing each others understandings and interpretations” (PL, C2).

1.a.iii being empowered to enact change?

Before the course, 12 of the participants self-reported to be confident in knowledge and understanding of being empowered to enact change. 5 of the 12 even strongly agreed to being confident, while altogether 4 out of the whole group of 21 did not agree to being confident in this matter. 11 participants also felt experienced in being empowered to enact change, but only 3 strongly agreed to this. 5 did not agree to being experienced, 2 of them strongly disagreeing. (See figure 1 and 2.)

The term empowerment was discussed in the pre-course focus group interview. One participant described it as a “blanket term, more of like a hope or an idea (...) it’s very glorified” (PreFG, C2, p11). A different take on it came from a different participant in the interview: “(...) but it’s fun. We can do it. You have to feel stronger and feel free to do these things.” (PreFG, C2, p4). This statement focuses on empowering feelings you might need to enact change – feeling *strong* and feeling *free* in order to act according to your conviction.

Figure 5



“As a woman coming from the 'global South' and as someone whose access to public spaces has always been restricted, I document the freedom I experience now. My shoes have walked on places they never had the experience before.” (PL, C2).

Figure 6

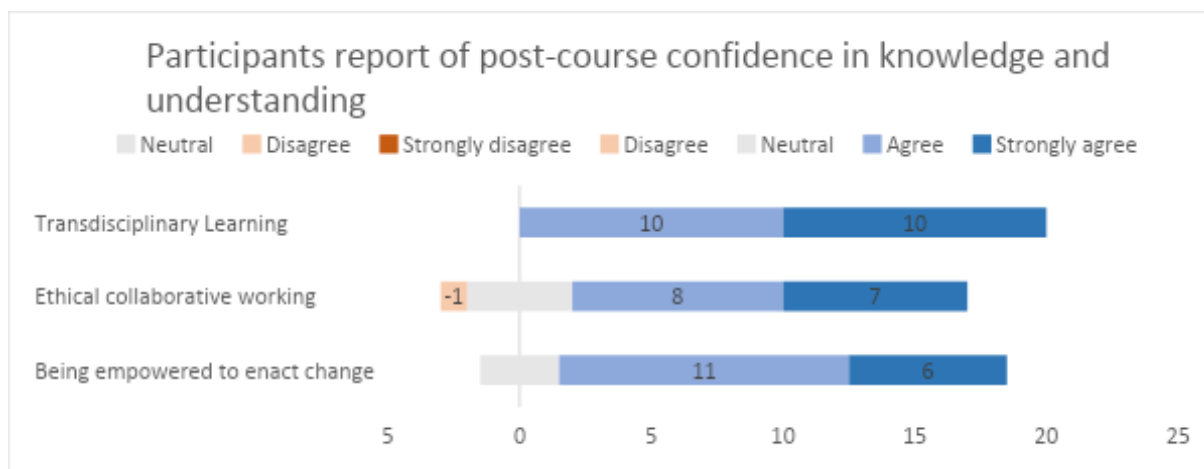


"Getting to know to burn for our idea..."
(PL, C2)
(To burn for... – in Norwegian this phrase means to be really passionate about something)

1.b How do these change as a result of participating in the intensive course?

In all domains – transdisciplinary learning, ethical collaborative working and being empowered to enact change – responses from the post course survey indicate that confidence in one's knowledge and understanding after the course is high.

Figure 7



Confidence in knowledge and understanding of	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Transdisciplinary Learning	0	0	0	10	10
Ethical collaborative working	0	1	4	8	7
Being empowered to enact change	0	0	3	11	6

1.b.i knowledge of, and understanding about transdisciplinary learning in science, entrepreneurship, the arts, and design thinking?

All 20 (N=20) respondents felt confident in transdisciplinary learning at the end of the course, 10 strongly so. At the beginning of the course the number agreeing to being confident was 15 (N=21).

Participants in the focus group interview all expressed that transdisciplinarity was not new to them, but that they had gotten new, valuable experiences. Several pointed at working with people with different backgrounds gave refreshing new perspectives, one stating that “[i]t moved into very different directions than I was used to.” (PostFG, C2, p2). The many perspectives were perceived by one participant as a way to avoid mistakes and strengthen the idea: “we have seen it from all the aspects possible, I think, all these days and hopefully we have come up with a good idea.” (PostFG, C2, p3). One participant stated that even though he was experienced with transdisciplinarity, the interdisciplinarity (sic) was very high throughout the week, and that the arts perspectives were new to him.

1.b.ii Ethical, collaborative working?

In the post course survey, 15 felt confidence in ethical collaborative learning, 7 of which agreed strongly to this. Before the course, 12 felt confident, while only 8 felt experienced at that time. After the course, some reported to be neutral in their confidence, while 1 participant disagreed to being confident in ethical collaborative learning.

Participants saw the ethical collaborative working of their group in terms of how well they communicated with each other, how important their discussions were, and how to find a solution or compromise in case of conflict. One participant explained how empathy played an important part in order “to know what the other people think and how they want to express what they feel” (PostFG, C2, p5) when discussing and exploring an issue from different perspectives. One statement tells us of an experience of the group growing together: “I felt this being a whole, after five days, we were united as one and trying to find the solution to our problems.” (PostFG, C2, p4).

The photologs gives us important information on the experiences of being part of a group collaboration. These three photologs tell stories of challenging moments, improved collaboration, and spontaneous engagement in collective moments:

Figure 8



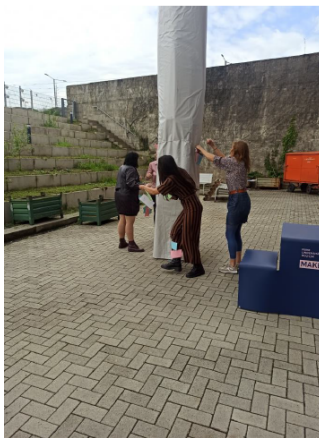
"This day is when the course had the most conflict. It was alerted to me by two tutors, we spoke to the person who felt ignored, then her group members, this helped all see the misunderstanding. The easy indoor outdoor access to the space helped this quick and nice resolution" (PL, C2).

Figure 9



"A new member joined our group very organically. It was the first day I was happy with our group's overall collaboration." (PL, C2).

Figure 10



"We were not the only ones employing interactive presentation components to convey our concepts. I really enjoyed the spontaneous engagement of my course mates as well of myself in case in these collective moments." (PL, C2)

1.b.iii being empowered to enact change?

The results of the post course survey shows that 17 out of 20 felt confident in being empowered to enact change at the end of the course, compared to 12 out of 21 before the course (Figure 2 and 7).

Participants in the post course focus group interview had different ways of explaining their experiences of being empowered to enact change by the course. One participant pointed at confusion reflected in group discussions on "how to make it something new and innovative without being very wasteful of resources and inventing something already existing" (PostFG, C2, p4), everybody being motivated to create a new space, and working together as empowering. Another

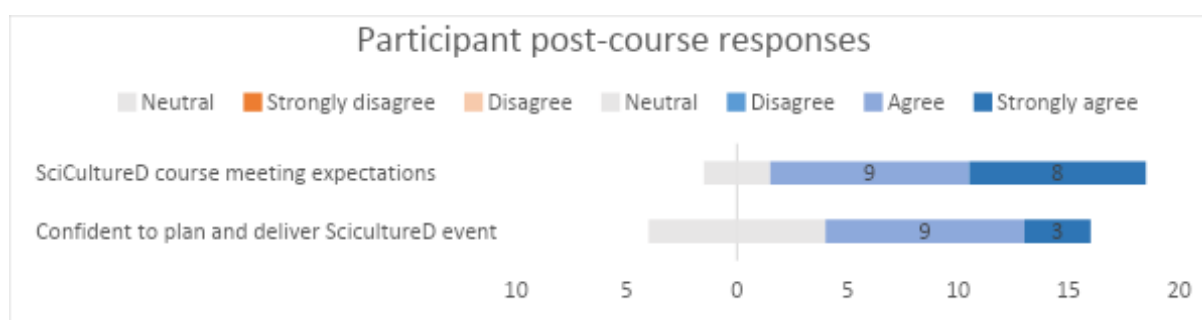
participant described the process of implementing something as empowering, the structures given by design thinking to approach such a project, and empathy, explained as being open to “different perspectives on the same issue” (PostFG, C2, p4). A third participant mentioned empathy as well, with a somewhat different meaning: “to know what the other people think and how they want to express what they feel” (PostFG, C2, p5). This participant also pointed at wisdom and knowledge of various sector such as entrepreneurship and design thinking, as well as playfulness. Seeing empowerment to enact change in a larger context, one participant stated, “I think that this is something which aims for the good of our humanity and nature” (PostFG, C2, p4).

Several of the partners addressed the concept of empowerment directly or indirectly in their interviews. One partner says that participants said they felt empowered, and that this was thanks to the challenge of the course, which made them realise that “they can contribute with their own knowledge and their own experience and that they can be active actors in changing a community” (SI, C2, S, p3). Two of the partners pointed at how a group that struggled with conflicts during the week eventually experienced a resolution to the conflict, and used this in the final sharing session. The process of reaching the conflict resolution could be experienced as empowering, especially when the group used it as a means of expression. Other partners mentioned the experience of succeeding in working with people with different backgrounds as a possibly empowering aspect of the course, as well as the general playfulness and being open to try out new thing and take risks. One partner points out that though there were louder voices, “I think even the quieter ones were more comfortable towards the end.” (SI, C2, S, p3).

c. What, if any, innovations emerge for participants within the SciCultureD courses?

In the post course survey, we asked the participants if the SciCultureD course met their expectations, and how confident they felt about planning and delivering a SciCultureD meets event. For most participants the expectations were met. 8 people strongly agreed to this, 9 agreed, while 3 were neutral. Fewer felt confident to arrange a SciCultureD meets event, with 12 agreeing (3 of them strongly), and 8 being neutral.

Figure 11



	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Did the SciCultureD course meet your expectations?	0	0	3	9	8
How confident do you feel to plan and deliver a ScicultureD meets event?	0	0	8	9	3

Participants' initial expectations thematised:

The majority of participants were expecting to learn how to use transdisciplinary approaches, to learn design thinking methods, and to explore and learn more about third places. Many were expecting to do networking, and looking forward to meeting new people with different backgrounds and nationalities to collaborate, co-create, or exchange ideas and experiences with. Some were keen to take or be inspired by what they learned into their own professional work, several of them teachers. "Strategies for creative processes", experiencing "creative energy" and "innovative teaching methods" were mentioned by individual participants, as was "learn about science and theatre", and "I would like to be with materials in an embodied way". Finally, two participants expressed that "learning about transformation in other countries" and "problem solving in international contexts" were among their respective expectations, while a third participant was eager to learn about Bochum "from a different perspective". (PreQ.)

Did the course meet their expectations? (thematised)

Participants mostly felt that their expectations were met, according to the post course survey (see figure above). The participants highlighted and praised different aspects of the course: the facilitators and the different professional backgrounds of the team, the transdisciplinary approach, being presented to several design thinking methods, the course being "varied in terms of methodologies, pedagogies, sites and themes". One of the participants "appreciated so much how design pedagogy and creative pedagogy was both seamlessly woven into each day -- and also explicitly". Another simply stated, "I did learn about how to initiate a third place." (PostQ).

Several participants expressed enjoyment of being involved in the course: "I allowed myself to get immersed", the course gave "great opportunities for everyone", and was "well organised and ... a lot of fun too!" Others found that the collaborative aspects were fruitful: "Great group flow", "one week together can really spark great thoughts", "[I] met interesting participants to collaborate [with] in the future". (PostQ).

One of the participants experienced that "all participants shared the same perspective for social evolution". Another participant pointed out that «grouping people from different backgrounds both professionally and culturewise brought new challenges to the table», while a third pointed out that the mixture of nationalities and cultural backgrounds was especially important in bringing different perspectives to the home group. The choice of the city was perceived as "interesting" by one participant, another "really enjoyed meeting and talking with the locals and the owners of start-up companies", while a third praised using the

city “as our inspiration and learning” (Post Q). One participant had been to a SciCulture course in 2019, and comparing the two she concluded: “You have been better, much better!” (PostFG, C2, p5).

On the other hand, participants were experiencing certain aspects of the course and its organisation as more problematic, or having expectations that were not met:

- Sometimes it felt rushed; too little time to discuss and hear everybody’s views (PostQ)
- Few long breaks (Post Q), leading to exhaustion: “many times (...) I also felt exhausted, especially after the midday food” (PostFG, C2, p8)
- Only discussing in the same constellations, missing variation and balance (PostQ)
- Lack of methods that encourage introspection and reflection (PostQ)
- At times it was too abstract (PostQ)
- “(...) it sometimes felt a little disconnected to the previous activity” (PostQ)
- The course could use more diversity when it comes to race and ethical [ethnical?] background (PostQ)
- “I kind of lost the big, complex issue out of sight” (PostQ)
- “The course did not cover sustainability as much as I thought it would” (PostQ)
- “I would have loved to hear more best practices (...) some good or even best practices from other countries” (PostFG, C2, p8)

Figure 12



“Workspaces as third places - spaces which offer the exchange of ideas and skill sharing.” (PL, C2).

How confident do participants feel to plan and deliver a SciCultureD meets event?

The results from the post course survey showed that 3 participants strongly agreed on being confident to plan and deliver a SciCultureD meets event, while 9 agreed and 8 were neutral. This result is reflected in the explanations they gave in the survey, ranging from “Yes, why not”, to “I am still not sure how.” While some feel confident and ready to take on such an event based on previous work experience and participating in the course, many point out the need for assistance, guidance and support, by teaming up and collaborating with others, and/or help from the Ambassador network. (Post Q)

Of the more hesitant participants, the answers show they feel a lack of knowledge, or lack of understanding of the SciCultureD concept: “I still feel I need to learn more to be able to apply these to an event sort of thing”, “the transition from imagining third places to us potentially carrying out didactic tasks fell a bit short”, “I have not yet understood the standards and requirements of SciCultureD”, “I don't yet know what a SciCultureD meets event will be about exactly”, or, simply put by one participant: “I am still not sure how”. (PostQ)

Innovations

Both facilitators and participants experienced the course as innovative, in different ways. Many pointed at the course itself, with its different elements and perspectives that were new to the participants. One facilitator mentioned merely engaging in the experience as innovative, with the process, ways of thinking, and ways of engaging with materials. A different facilitator said that innovations occurred in the act of becoming “(...) open to new, more artistic and creative perspectives in the way of seeing a challenge or a problem” [SI, C2, S, p1-2]. Other elements were also mentioned as innovative for the participants: the theme, using many stakeholders and places, the design thinking double diamond process, the movement work and working with sound.

One participant described the group's discussions and way to implement their ideas due to their specific constellation as innovative, while another pointed at the entrepreneurship and the ways they were asked to express their ideas. A third participant said, “we were confused by how to make it something new and innovative without being very (...) wasteful of resources and inventing something already existing at some places” [PostFG, C2, p4].

Figure 13



“The students were very proud of their projects and one group felt it was ready. I was very proud of them. They have developed some really good ideas, some more grounded than others, some remind me of ideas that already exist but taken from a new fresh perspective, much more developed than some EU projects I am part of, which I found remarkable.” (PL, C2)

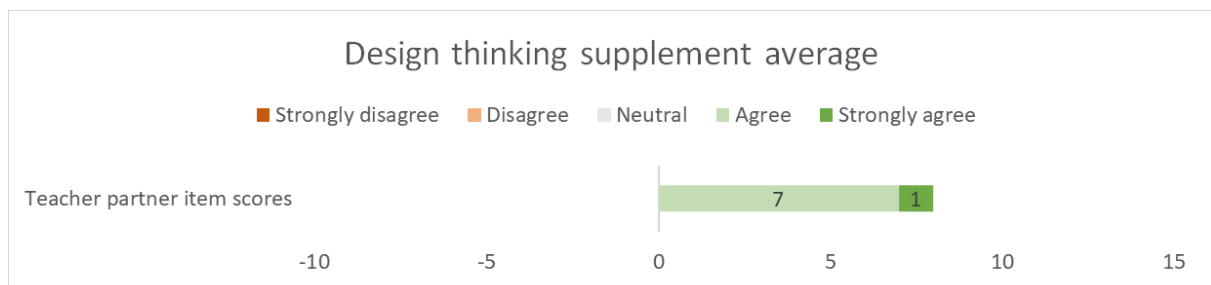
Several facilitators mentioned the bus as a moving third place as a very innovative concept. “... it was focused on bringing the community together, the different activities, um, and the creativity expressed was phenomenal, I thought,” one facilitator said (SI, C2, S, p2). Another concept that was perceived as innovative was the chestnut café, with a flexible pricing according to what you can or want to pay. “It seems very simple and effective approach to develop a community cafe.” (SI, C2, S, p2).

Eventually, the groups' presentations were described as creative and innovative – “it was very artistic, very creative” (SI, C2, S, p1-2). The use of artistic elements from the course, as well as maker workshop models, were perceived as innovative ways of expressing ideas and concepts by both facilitators and participants. A facilitator describes one of the group presentations as “really excellent in terms of its originality and the way they put ideas together” (SI, C2, S, p1).

2.a How do the key features of design thinking and creative pedagogy manifest for partners/trainers in designing and teaching the trans-disciplinary intensive?

Design Thinking

Figure 14



From the post-event survey, it emerges that overall, the design thinking process was evidenced during the course in Bochum. This is highlighted by the fact that most partners (7 tutors) scored highly on all the 8 examined statements related to Design Thinking, three of them reversed. One partner expressed ‘strong agreement’ that it was being met.

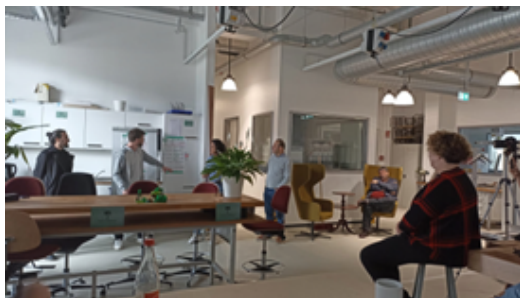
Several examples emerge from the staff interviews: one partner reported that the design thinking manifested since day 1, namely during the ice-breaker session through body movement - where elements of collaboration and creation emerged. One the same day, another partner appreciated the participants engagement with the topic of Third Places, reflecting on the photos showing examples of third places which encouraged participants “to question each other and their choices of 3rdplaces,” highlighting the questioning process of the design thinking (defining the challenge and exploring the topic) (PL, C2). Besides, some partners observed that participants were being open to new and artistic perspectives when tackling a complex challenge (SI, C2, S, p1-2).

Additionally, one partner emphasize a change in comfort and boundaries throughout the week, moving “out of their comfort zone” for example, during the movement workshop – “a few of them were uncomfortable at the beginning and then they became more and more comfortable as the workshop progressed.” (SI, C2, S, p1). One tutor highlighted that the Maker Workshop on day four was particularly helpful for participants to explore their perspectives and to converge them in one vision: this activity allowed “the participants to explore different possibilities, (...) [m]oving the double diamond process forward.” Another observation made by a tutor captured the design thinking as ‘ideas forming’ as

part of the convergent phase of the process where ideas became tangible through LEGO bricks artifacts.

However, one partner reflects on the missed opportunity to use the design thinking process in the planning phase of the course. Even though the design thinking “really showed through in the course itself,” this tutor felt that the process was not used during the development phase of the course highlighting the need to use the double diamond process also during the preparation phase of the course. (SI, C2, S, p3).

Figure 15

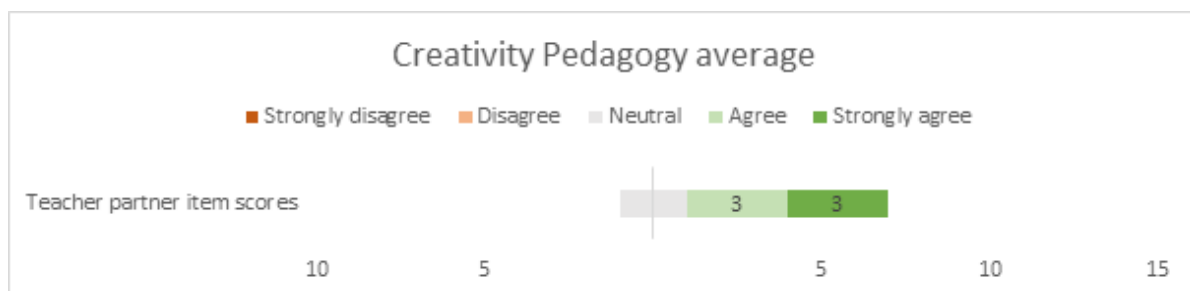


“This is an image of a group presentation. I chose this image as it was an innovative way of looking at nature. This group also used the design process clearly in their work, describing nature first as a garden then developing their own branding idea.” (PL, C2)

2.a.ii How do creative pedagogies manifest for partners/trainers?

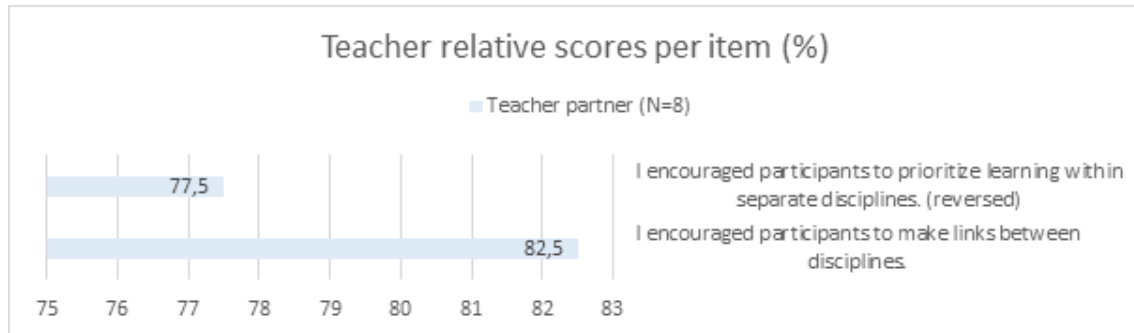
Within the pre and post questionnaires, creative pedagogies were examined across 22 items, 6 of them reversed, combined into composite scores. Partners showed agreement (3 tutors) and strong agreement (3 tutors) that the creative pedagogies were being met at high levels across the 22 items.

Figure 16



2A.2.1 Transdisciplinarity

Figure 17



Partners (N=8) scored overall a positive result (82,5%) on transdisciplinarity statements “I encouraged participants to make links between disciplines”. The staff interviews showed additional evidence of transdisciplinarity emerging as strong feature of the course from three different perspectives.

Various partners reported during the interviews that transdisciplinarity manifested in the way participants managed to interact *‘with people from different backgrounds and disciplines.’* (SI, C2, VD, p1), as well as in the way the course was organized by *‘using so many different places and bringing in so many stakeholders’* thanks to the choice of attending the course in three different places (SI, C2, ED, p1).

Some partners evidenced how the course content and the presence of different experts (tutors) were an example of transdisciplinarity in action, with different expertise coming together to create ‘new’ and ‘palpable’ disciplinary interactions. One partner expressed that the collaborative effort among tutors *‘trying to see how to include what we are experts in to make something new’* felt really transdisciplinary (SI, C2, ED, p3). The different elements of the course *‘from coal mining to moving to sound, to theatre to Ed’s business work’* were appreciated in another comment as an example of transdisciplinary team effort and the result of *‘disciplines come together face to face’* (SI, C2, KC, p2).

The perspective of transdisciplinarity as collaboration of different expertise was also evidenced across the partners’ photologs, representing collages of different course elements coming together. One partner captured different materials and tools such as the ‘Knitting studio’ and the ‘Sound Studio’ that helped the participants produce transdisciplinary concepts of Third Places (Figure 18).

Figure 18



For partners, transdisciplinarity manifested also through the complementarity of the proposed content and succession of course sessions. As an example, the

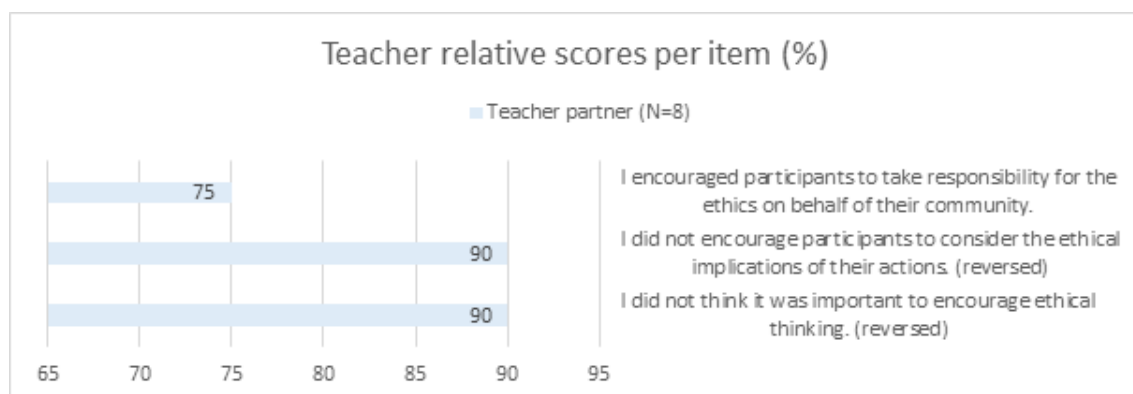
collage in one partner's photolog "wanted to show some pictures of the maker space and the students presenting the spaces they created after the making / business model canvas session." (PL, C2). Another tutor collected some representative pictures from one of the performances, where one group put together different elements of sustainability, social cohesion, education and local knowledge, described as "Greenery, plants, varied price menus, mobile green buses as 3rd places, fireplaces as the nucleus that bring people together, plants to educate to heal" (PL, C2). Another perspective of transdisciplinarity emerged as a 'sense of togetherness' and 'proximity' where participants experience physical vicinity through commonalities and physical distancing through differences from their backgrounds during the ice-breaker session.

Figure 19



2A.2.2 Ethics and Trusteeship

Figure 20



Partners scored relatively high on ethics statements, particularly the two reversed statements above (90% both). The score was somewhat lower (75%) on encouraging participants to take responsibility on behalf of their community. Additionally, in this course, ethics and trusteeship strongly emerged thanks to the topic of the main challenge (Third Places) and the location/initiatives presented during the course. The latter was particularly appreciated for its connection to the local community and the context they were implemented. As one tutor stated in the staff interview, "Ethics came out stronger this time, I think, which really show. And I think that was because of where we were. KoFabrik in particular really pushed the ethical and the community agenda and it was really good to have that

in day two and three, which was key to be thinking of those things.” (SI, C2, S, p3). The role of the Ko-Fabrik in reinforcing the sense of Ethics and Trusteeship was also evidenced by another tutor’s photolog describing how the front area of the building allowed children and participants to freely move and to interact, increasing the sense of trust in the community.

Ethical awareness was often present during group work, and discussed extensively in connection to the topic of Third Places – touching upon sustainability issues, capitalism and social inclusion as reported by another partner (SI, C2, S, p2), and it expressed in the “level of care they were taking with the ideas, with other people, with the spaces, all of those sorts of things” (SI, C2, S, p2). The tutors reported that ethical awareness and trusteeship characterized the relationships withing the teams, sensing that participants were “very respectful to each other, to each other's cultures, very aware that people are coming from different backgrounds and might have different ideas” (SI, C2, S, p2). Even though a conflict within one group may have decreased the sense of trusteeship, dialogue and the support of the facilitators helped to overcome the mistrust created. (SI, C2, S, p3). From the tutors’ perspective, participants engaged in ethics and trusteeships since day one, during the body movement session led by Kerry. One partner reported that when people were expressing themselves through movement and “coming out of their seats”, they established playful dialogue and connection that would eventually build trust between participants (PL, C2).

Figure 21



“Laughter and engagement, active listening.” A tutor reflects on building up the relationship between participants and facilitators through laughter, and active listening (building trust). The picture represents a group work moment facilitated by a tutor. (PL, C2)

Figure 22

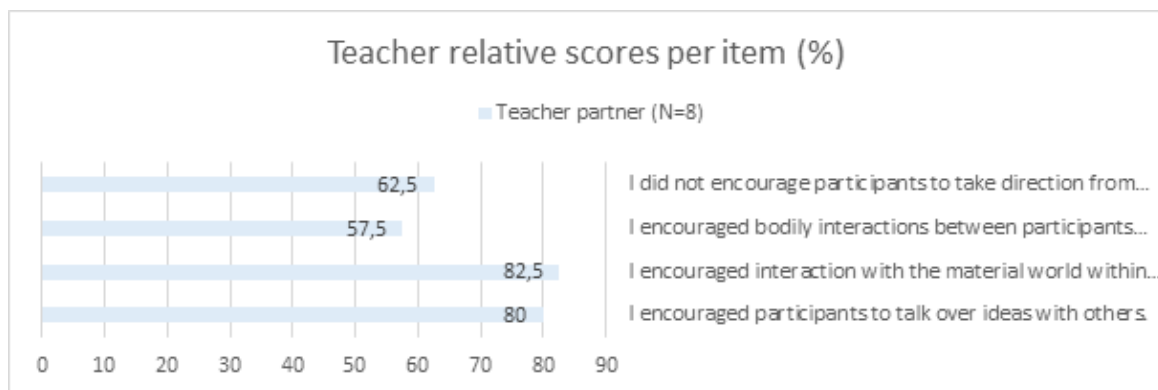


"A genuine act of kindness: sharing the last bit of chocolate with someone met only 2 days before." A tutor captures a moment of sharing and reflect on the kindness of the action. (PL, C2)

Finally, also the facilitated team work sessions gave stage for this creative pedagogy to manifest. The sense of trust between the tutors and participants was nourished through active listening and informal interactions (building trust).

2A.2.3 Dialogue

Figure 23



The survey graphics show that partners scored highest on encouraging interaction with the material world (82,5%), and equally high on encouraging participants to talk over ideas with others (80%). However, partners encouraged bodily interactions and taking direction from others only moderately (57,5%).

Overall, partners observed that dialogue manifested in evident and excellent way and at multiple levels throughout the course, with one partner summarizing it as: "I thought there was a really excellent level of dialoguing in all the different ways that we would hope dialoguing could happen, whether that's in an embodied way, a verbal way, there was dialoguing between people, people and ideas, different disciplines, the way they were kind of dialoguing with Bochum as well. It

was almost just not, not just the spaces they were in, but the idea of Bochum in the place it was at, the developmental stage it was at, so they were sort of dialoguing with the city as well, which was very interesting, I thought. So that felt very evident, very strong.” (SI, C2, S, p2).

“Vivid dialogue and embodied dialogue” were appreciated in every home group between team members during the group work time, with participants engaging using “their hands, their body, their expressions, create, to implement the dialogue” (SI, C2, S, p2), and to discuss “many ideas, exchanging the positive and negative aspects”. (SI, C2, S, p1-2). Moreover, team members showed to be welcoming with novel collaborators, which sparked ideas exchanges (SI, C2, S, p2). Dialogue was observed also in the dimensions between tutors and tutors and participants as another partner reported (SI, C2, S, p2). Dialogue was pointed out also as an emerging feature of the course when participants established a “special dialogue with spaces”, when observing and interacting with the buildings and the open areas during the field trips, and eventually also with the local community and the “people responsible for those spaces.” (SI, C2, S, p2). The photologs showed evidence of dialogue as a two-way interaction being embedded in the teams’ dynamics and in the interactions between tutors and participants.

An inductive and encouraging setting for dialogue appear to be an important element for this creative pedagogy to manifest. For example, one partner reported dialogue within groups between participants and external stakeholders, during the workshop ‘World Cafe Tables’ where participants interacted in small groups to answer some given questions around the role and future of the German Mining Museum. The small-scale setting supported dialogue and exchange with participants sitting at the same table and in small groups. (PL, C2). Another picture reported in one tutor’s photolog represented a dialogue-encouraging setting with the tutor surrounded by the participants facing each other (PL, C2). Partners also noticed that the short duration of the direct inputs from the tutors, who “were standing up, participants sitting down, and explaining things over powerpoint,” were effective, short and helpful to lead group work. The combination of the course introduction via presentation and the “accompanying dialogue the tutors gave was clear and fluent” (from Monday morning session) (FN, S, C2).

Figure 24

“Presenting outside and inside”

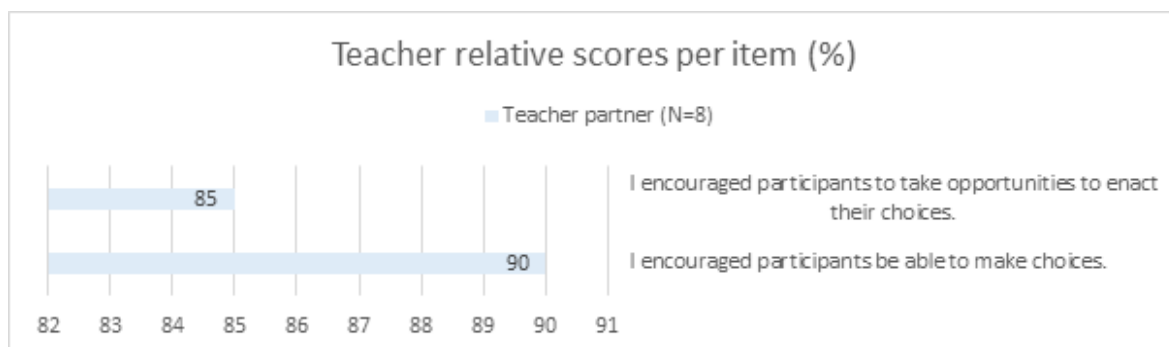
The facilitator captured one of the outdoor performances, where spectators were asked to participate in the representation of a third place through a dance that was perceived as a way of dialogue and connect through body movement (PL, C2).



Partners also expressed that a dialogic approach in multiple phases and at different levels was important in conflict resolution among the team members. As one partner evidenced: “This day is when the course had the most conflict. It was alerted to me by two tutors, we spoke to the person who felt ignored, then her group members, this helped all see the misunderstanding.” (SI, C2, S). The participation of more actors in the dialogue is key. Once more, the space setting also facilitated a smooth dialogue: “The easy indoor-outdoor access to the space helped this quick and nice resolution”. (PL, C2).

2A.2.4 Empowerment and Agency

Figure 25



The partners scored overall high on encouraging participants to be able to make choices (90%), and a bit lower on making them enact their choices (85%). One partner sensed that empowerment and agency manifested as “group agency” in this year’s course. Compared to last year, the same tutor felt that participants did not want their own agency as much, and that “the empowerment came through the group collaboration, so that felt a bit healthier than it has done in previous courses.” (SI, C2, S, p3). Additionally, one partner reported that participants felt “empowered” using their own knowledge and their own experience to be “active actors in changing a community, for example, through third places,” (SI, C2, S, p1). Another partner observed that this creative pedagogy manifested well thanks to the structure of this year’s programme and the tutors competencies: “in my opinion, give their best in order to empower in, because they, as far as I know, and I saw, they’re all experienced people...” (SI, C2, S, p3).

The level of participants’ satisfaction and fulfilment with their own ideas and results throughout the week was noted down by another tutor (Figure 26), who reported ‘pride’ and a sense of ‘owning’ expressed by the participants when sharing and presenting their perspectives. (PL, C2).

Figure 26



'The students were very proud of their projects and one group felt it was ready. I was very proud of them. They have developed some really good ideas, some more grounded than others, some remind me of ideas that already exist but taken from a new fresh perspective, much more developed than some EU projects I am part of, which I found remarkable.' (PL, C2).

Finally, a different partner reflected on the role of the first venue of the course, the KoFabrik, in inspiring community empowerment. She highlighted an example of community agency by capturing the architectural changes of the KoFabrik outdoor area (Figure 27) that were an important step in reclaiming this community space from industry. This "showed that not a lot of funding is needed but the energy and initiative. A truly inspiring place." (PL, C2).

Figure 27

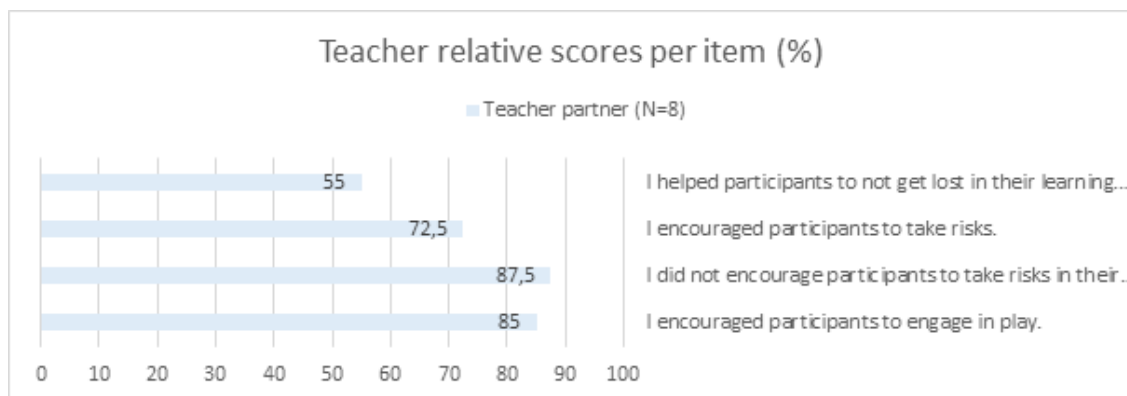


really like the architectural interventions, so simply and yet so effective in changing the space. The kofabrik showed that not a lot of funding is needed but the energy and initiative. A truly inspiring place." (PL, C2).

"In this photo we are walking out to the outdoor space of the kofabrik. I

2A.2.5 Risk, Immersion and Play

Figure 28



Partners scored 85% on encouraging play, but somewhat lower (72,5%) to take risks. Half of the partners (55%) stated to help participants in not getting lost in their learning. This last statement scored the lowest of all in the partners' post course survey. The 'risk, immersion and play' creative pedagogy manifested multiple times from the tutors' perspective, especially during the movement session and embodied learning and post-humanism workshop. One tutor reported that besides *"people expressing themselves and coming out of their seats to collaborate, create, risk," [...] the tutors also have smiles on their faces and are loving the impact this session: Kerry's in the morning on day one*" (PL, C2), manifesting the element of playfulness in this ice-breaking session on day 1.

At multiple stages, tutors noted that participants were pushing their own boundaries by participating into the group activities, by pushing their limits in thinking in a new way, in experimenting ideas and in engaging in conflicts (SI, C2, VD, p3) and by trying new experiences such as the *'movement workshop'* and *'using the technology'* for the soundscape session (SI, C2, KP, p3). As another partner observed, the soundscape session led participants to experience playfulness and immersion *"I could see from and hear from some of the sessions, like the soundscape session, how they played around some with different kinds of sounds and layers of sounds, and also the maker space where the task was to, you know, sort of play around with ideas, in a creative and, while building in the maker space/"* (SI, C2, S, p2).

The element of playfulness was repeatedly reported during the staff interviews, especially when observing that participants had fun during the activities and in the process of trying something new and making mistakes, *"and go back and, and they have various possibilities"* in a safe place (SI, C2, S, p3). The conflicts emerging between participants and their different perspectives in the context of a group and their ideas was also seen as *"a risk"* taken by partners and participants themselves: *"It's an intensive experience but I think it's what makes the course memorable and education in this way, when people are immersed in something for so long."* (SI, C2, S, p6).

Another example emerges from the photolog description of a different facilitator, which highlights the absence of conversation during the embodied learning and posthumanism workshop, together with the body movement and connections, as an example of risk, immersion and play (PL, C2).

Additionally, the final sharing sessions on day 5 were also significantly characterized by this creative pedagogy. As one tutor reported (Fig. xx), the final theater play set by one of the teams on day 5 - each playing a different character on an improvised stage- fully manifested risk, immersion and play (PL, C2).

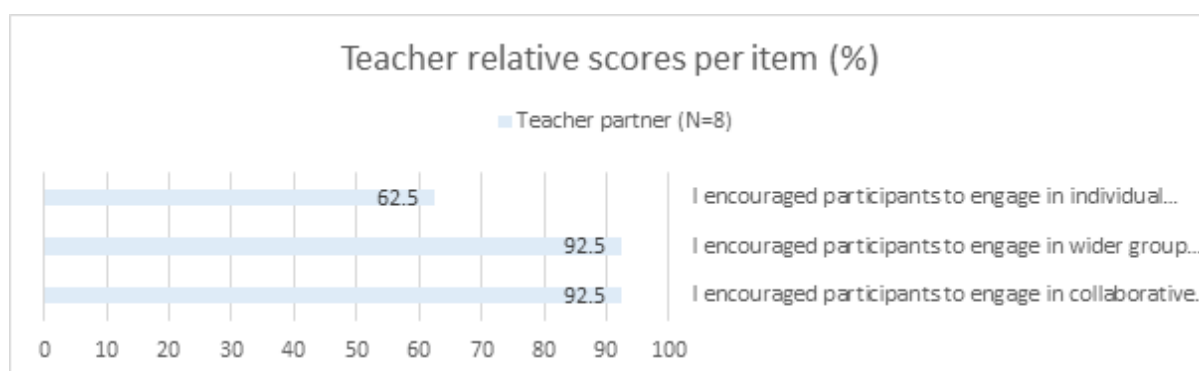
Figure 29



“Presenting outside and inside” (PL, C2).
A tutor reflects on the variety of artistic and creative methods used by the participants on the last day - with positive notes on the general feelings, representing the playfulness of the session, as well as the immersion in their own plays.

2A.2.6 Individual, Collaborative, Communal activities for change

Figure 30



The graphics above show partners scoring very high (92.5%) on encouraging group and collaborative learning, and lower (62.5%) on encouraging individual learning. Staff interviews evidenced how this creative pedagogy was particularly evident in this year's course, especially because of the 'essence' of the challenge (Third Places) which guided participants in individual, collaborative and communal activities for change: *“The essence of the course was third places, the main concept so it was a communal activities for change and the whole dialogue was around this idea how to create spaces for communal activities and collaborative actions and the activities”* as one partner observed (SI, C2, S, p3).

Partners believed that the collaborative relationships were extremely highlighted within the course, even though this might have made some participants *“uncomfortable in that they wished for more individual space”*, wishing for some individual time along the week for reflection and thinking (SI, C2, S, p2).

Another partner observed that the course managed to give space to all three dimensions of this creative pedagogy: the ice breaker acted at individual level, to discover themselves and to establish relationships between each other; (SI, C2, S, p3); the home group settings gave stage to the collaborative work, resulting in 'synergistic work during the teamwork hours' (SI, C2, S, p3), and the collective work emerged very clearly' (SI, C2, S, p2). Finally, the constant and diverse connection with local communities present during the field trips and exercises emphasized the communal work. (SI, C2, S, p3). The soundscape workshop was also reported as

an example embodying all levels of this creative pedagogy: *"For instance, I had the experience to see the, also the workshops for the soundscape. So they were recording by their own, but then they connected, they collaborated, they created something common that, it was in their idea and also as they presented it, they, there was something like a common product or a common result."* (SI, C2, S, p2).

Conflict resolution was also mentioned in relation to this creative pedagogy from various partners: *"I think the participants innovated in how they overcame conflict resolution. I saw that in particular with the group that had the two people from Bochum there, that worked together because on day three they were going to disband as a group, but then they learned to overcome that and worked well"* (SI, C2, S, p1).

One point of discussion regarding individual, collaborative and communal activities for change in relation to the wider social elements of the course being less well engaged in - *"Last year was, was different. We had many times shared dinner with participants, which also helped to kind of get to know participants in a better way and maybe, and, better understand them and here as well I mean both things, having tutors outside of the session just sitting about doing their stuff and not engaging that much with the groups, I felt, I felt, um... It's not optimal, it wasn't optimal and it was a little bit, yeah, last, last year was better from this point of view. Yeah"* (SI, C2, S, p5).

Figure 31



"Very happy about the collaboration between the German Mining Museum, stakeholders from the UniverCity network and the sciculturD group. This world café was the first time that this space was used for an event' a tutor reflects on the positive experience at the World cafe tables, where the Scicultured community met with the local stakeholders." (PL, C2).

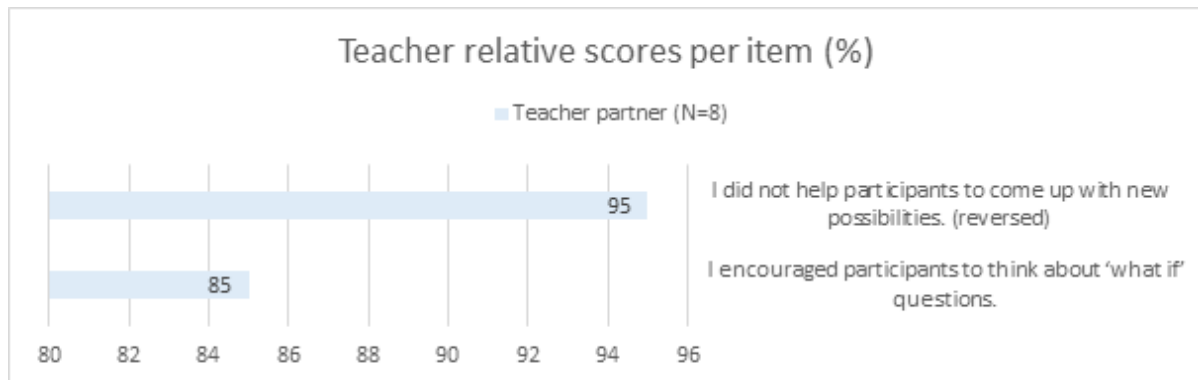
Figure 32



"Loved the co-creative atmosphere! A tutor reflects on the collaborative spirit on day 5 during the performances." (PL, C2).

2A.2.7 Possibilities

Figure 33

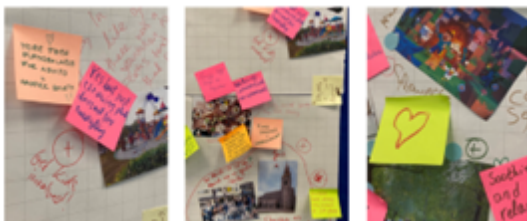


Partners felt to a relatively high degree that they *did* help participants to come up with new possibilities (95%), and scored relatively high (85%) in the statement of encouraging participants to think of 'what if' questions. In the staff interviews, tutors noted that throughout the process both organizers and participants were open to possibilities, intended as new ideas, and that this openness turned into a useful tool to collaborate ('helped each other with them.') (SI, C2, S, p3).

Some partners referred positively to the field trips in regard to this creative pedagogy, helping people to gain an understanding of a variety of Third Places. Another partner observed that the course opened participants to new possible perspectives and to see the challenges from different angles (SI, C2, S, p2), while another facilitator emphasized that participants were given the possibility work with new ideas and to take advantage of the knowledge provided by the tutors (SI, C2, S, p2).

Several partners mentioned that each venue of the course encourage the exploration of possibilities, and inspire curiosity for novelty and new ideas. For example, one tutor noted down that participants were '*using "space" in a creative way*' during day one at VHS centre. As another partner reported: "*I was very aware that I was working differently in the different spaces like KoFabrik, etcetera. They just lead to different kinds of interactions which could also be seen as innovative as well, I think.*" (SI, C2, S, p2); Another tutor reflected on how the RUB-Maker Space, and the exposure of participants to the possibility of freely test and use the spaces and tools, encouraged participants in '*creating, making, developing things together.*' (PL, C2).

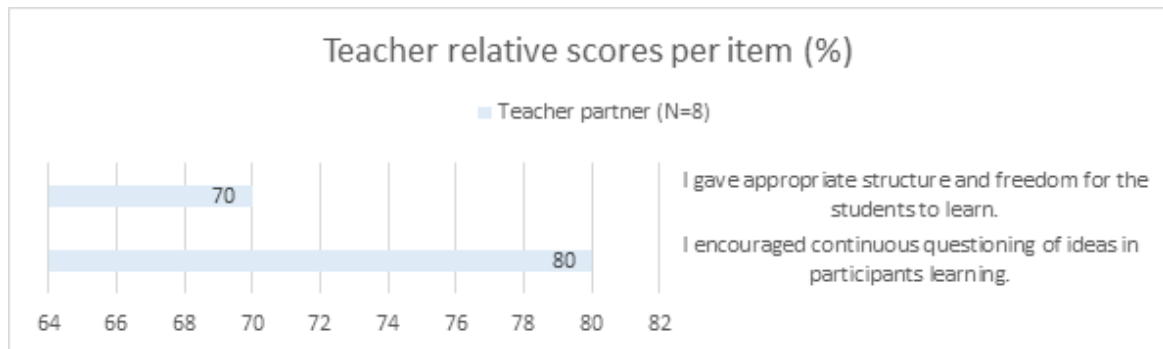
Figure 34



"These pictures show the positivity and socialist values that the group has. There is a lot of great phrases here: "free playgrounds for children and adults" "food sharing" "how not to commercially exploit..." and so on." (PL, C2).

2A.2.8 Balance and Navigation

Figure 35



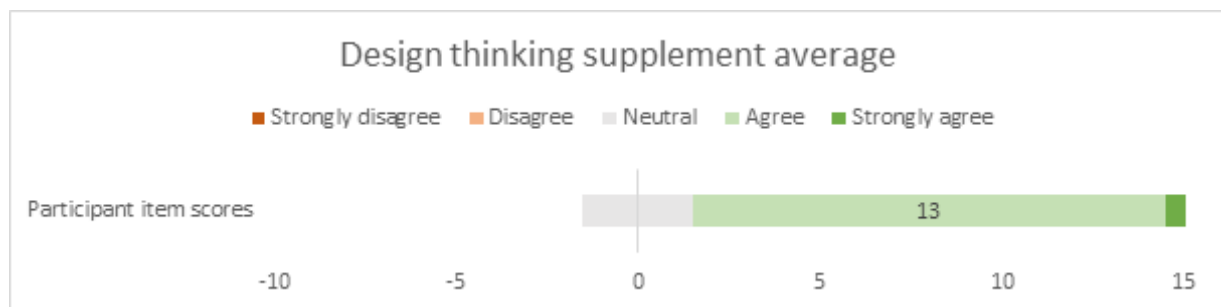
On balance and navigation statements, partners scored relatively high, especially on encouraging continuous questioning of ideas (80%). They scored a little lower on giving appropriate structure and freedom (70%). From the staff interviews, one partner reported seeing balance and navigation in action between tutors and participants by *'stepping in, stepping back, across the week.'* (SI, C2, S, p3). Whilst there were no photologs showing this pedagogy, fieldnotes showed partners balancing information giving (*'the slides were up but the accompanying dialogue'*, *'clear instructions'*,) and interaction (*'The tutor defined dialogue very well, she turned around and looked in various people's eyes.'*; how balance was communicated (*'delineated what was possible and what wasn't'*; *'when to listen and when to go a bit crazy'*) (FN, S, C2).

In another field observation, a tutor suggested how navigation could have been drawn out more using reflection in particular sessions such as the independent group work, and how perhaps later in the week there might be space for more facilitator absence from the process: *"Maybe it would be better if tutors weren't present at all in this phase (just thinking of that so a feeling of no guidance is created for the participants as it could be in the real world in the final phase)."* [From Monday morning session, led by K. and K.].

2.b How do the key features of design thinking and creative pedagogy manifest for the participants?

2B.1 Design Thinking

Figure 36



Design thinking supplement, averages as	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Participant item scores	0	0	3	13	4

Within the questionnaire, Design Thinking was examined across 8 items, three of them reversed, combined into composite scores. Among participants, 13 agreed that they were engaging in design thinking, 3 gave neutral scores, and 4 participants were in strong agreement.

Amongst the voluntary participants in the post-event focus group interview, one person expressed that design thinking felt like an intense, back and forth process in continuous movement: *"This was a bit fascinating and a bit stressful - a lot, I could say, not just a bit. But it is important to, to make a step back or two steps back and think and see if you're right and then move forward. That was the case for me."* (PostFG, C2, p2).

Another person concluded that their major takeaway was a structured 'process thinking', learning an approach on how 'to implement something' using empathy, using different perspectives on the same issue, and to discuss it from different points of view (PostFG, C2, p5).

Other participants agreed on the possibilities of combining 'models' from different disciplines through design thinking and that this 'does serve to avoid mistakes, and mistakes in every direction because we have seen it from all the aspects' (PostFG, C2, p3).

Overall, participants expressed that this process was very intense, somewhat stressful, time-demanding but overall had a positive experience in learning new methods and experiencing the collaborative and transdisciplinary work.

The Photologs showed evidence of more and less overt reflection on design thinking by the participants: for participants, Design Thinking manifested through the shift in perspectives, and observing their surrounding with a different lens. For instance, one participant wrote *'Eye to detail in the process : When is it needed... what brings the Nature to the table when we are talking about third places?'* (PL, C2).

Design Thinking was also seen as a difficult, somehow challenging process:

'Wednesday was an intense day trying to close the first diamond. I think the soundscape task was nice - trying to be a little creative.'

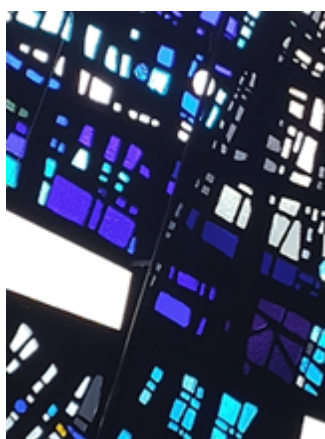
Figure 37



'Wednesday was an intense day trying to close the first diamond. I think the soundscape task was nice - trying to be a little creative.' (PL, C2)

Here the participant reflects on some difficulties encountered during the double diamond process (on Wednesday) - the uncomfortable feeling of confusion and hardship.

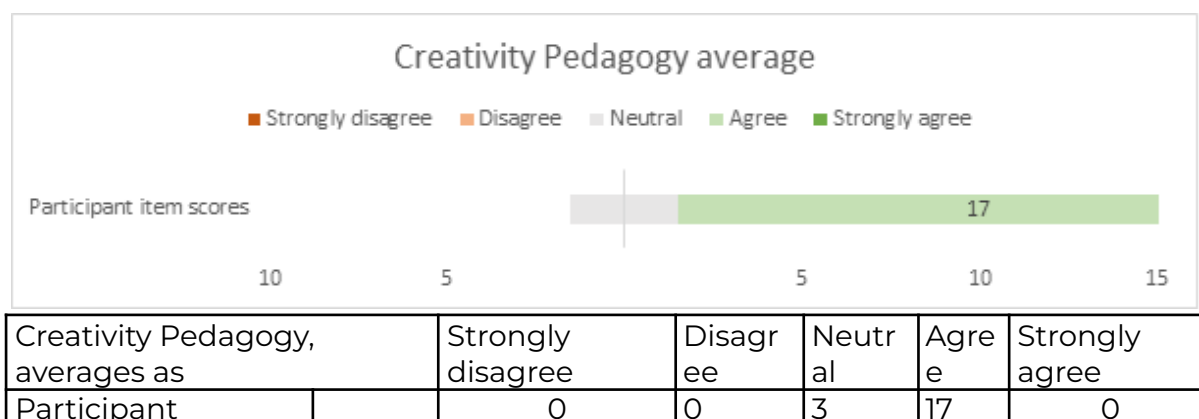
Figure 38



'What shines thru: things go in and out and look different from the outside and find the beauty inside.'
A participant reflects on different perspectives (PL, C2).

2.b.i How do creative pedagogies manifest for participants?

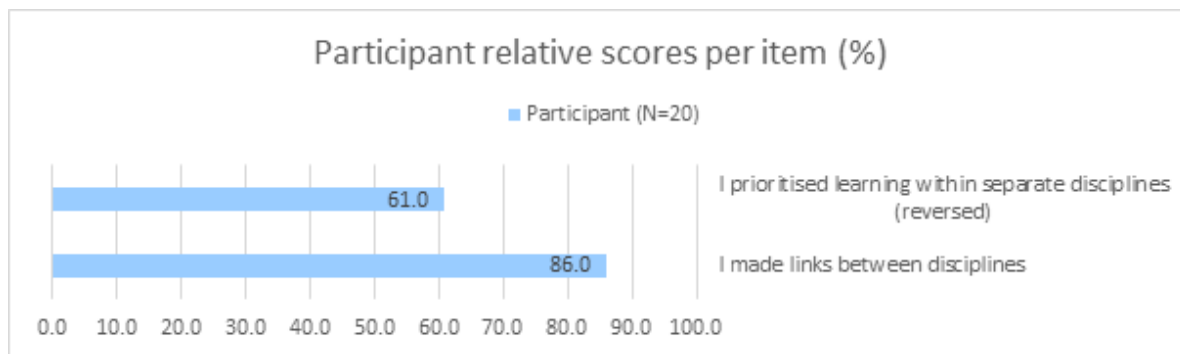
Figure 39



Creativity pedagogies were examined across 22 items, 6 of them reversed, combined into composite scores. 17 of the participants either agreed or strongly agreed that they were engaged in creativity pedagogies.

2B.2.1 Transdisciplinarity

Figure 40



The post course survey scores show that participants scored relatively high on transdisciplinary learning, with scores of 86%. They both felt that they made links between disciplines and that they didn't prioritise learning within separate disciplines in the course.

During the course, the participants' understanding of transdisciplinarity developed and was expressed in different ways. During the Post Event Focus Group, volunteering participants expressed that working with people with different background helped them moving into very different directions than usual, helping them develop a different perspective.

More than one participant found 'working with multiple perspectives' refreshing and educative (I took a lot with me) : "it was refreshing in the subject of ideas and multi perspective because the different disciplines have another view on and different things and work sometimes in another way together in a team." (PostFG, C2, p4)

The inclusion of the entrepreneurship perspective in the transdisciplinary approach of the intensive course was also perceived as 'very innovative' and was very appreciated by many participants (PostFG, C2, p3).

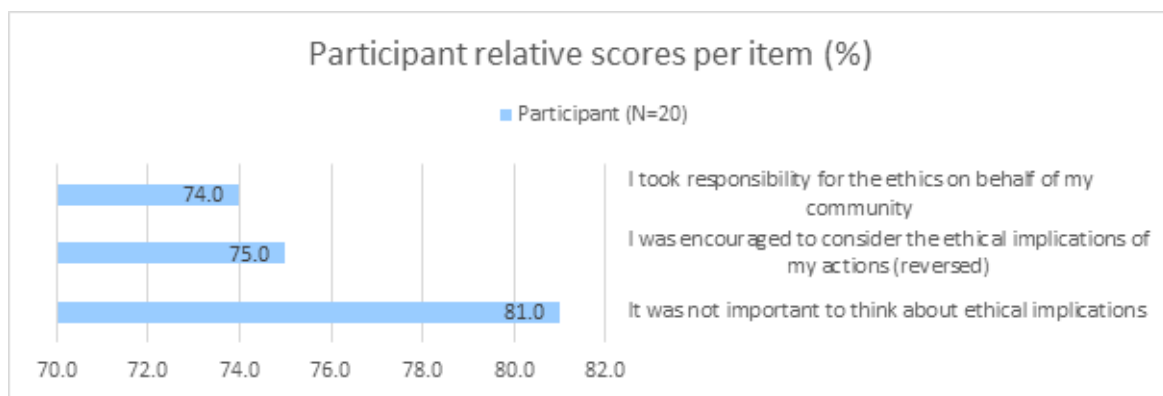
Figure 41



"This was an inspiring plant wall at the makerspace we worked the last two days. This gave even more inspiration to our project „the Chestnut” The participant captured an element from the RUB makerspace that inspired him - here the observation of the surrounding spaces to get inspiration is evident. (PL, C2)

2B.2.2 Ethics and Trusteeship

Figure 42



The survey shows that the participants felt that it was important to think about ethical implications (81%), and somewhat important to take responsibility for the ethics on behalf of the community (74%). Additionally, they moderately felt encouraged to consider ethical implications of their actions, scoring 75% on this statement.

Ethical discussions were common during the group work, especially when developing their concepts of Third Places. Both participants' Focus Groups and the field notes reported that groups were spending quite some effort in discussing topics such as social inclusion, accessibility, sustainability (FN, S, C2). This even resulted in 'self-conflict' and 'conflict' within groups and individuals (*"[...] because in our group we had some content conflict, for example, about including children or not. So we had to find a way to discuss this issue and find a solution or compromise for it"*) (PostFG, C2, p4). Other groups were reported to discuss ownership of public spaces [From Monday afternoon Facilitated group time]. In one group, a discussion started about who owns third places: Is it governmental property or non-governmental property? Other participants commented and expanded on that." (FN, S, C2).

Many participants were reflecting and seeking for the positive implications and impact of their Third Places on the community and on the environment, with one

volunteering participants describing their experience in the post Focus Group as: *“goodness, because last but not least I think that this is something which aims for the good of our humanity and nature, too.”* (PostFG, C2, p4).

Staff interviews showed good evidence of how this pedagogy manifested for participants through productive discussions on “sustainability issues” ‘sustainability work’, ‘capitalism’ ‘how to make this inclusive to all classes’ (SI, C2, S, p2). Staff observed that one group put particular effort and thought in designing a Third Place that could positively impact ‘vulnerable communities’ (SI, C2, S, p2).

Additionally, photologs from participants demonstrated Ethics and Trusteeship in action from the personal trust relationships (*‘making new friends’* and *‘team building’* from the photologs) necessary to lead to trusteeship as well as strong awareness of elements of social conscience and human-nature relationships, especially during the field trips and outdoor activities.

Figure 43



‘Machine of self-destruction’

The participant reflects on the impact of mining on the environment and humans in general. [PL, C2]

“Nature is an important part in my life. It ´s comforting to see nature thrive in such a hostile (cars, buildings, humans) environment.”

Figure 44

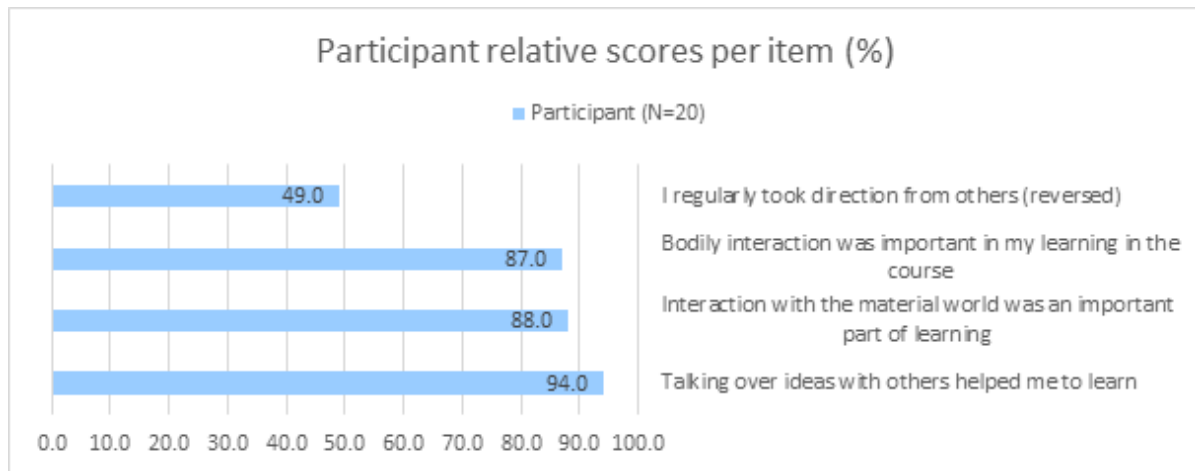
A participant captures elements of nature in an urban context and reflects on his feelings towards them and his relationship with nature. He also



reflected on the impact of human on nature. (PL, C2)

2B.2.3 Dialogue

Figure 45



The dialogue statements in the post course survey show a great divide in the participants' scores. While 'talking over ideas with others helped me to learn' gave the highest score (94,7%), a reversed statement, 'I regularly took direction from others', gave the lowest score (49 %). Statements on bodily interaction and interaction with the material world scored relatively high in this course (87% and 88% respectively).

Field observations repeatedly reported participants engaging in two-ways discussions during the teamwork time, with sometime '*more than just one discussion*' happening at the same time. Conversations were accompanied by '*hand gestures to explain their ideas*' and '*active listening happening among them.*' Home groups were engaged in dialogue also physically, by facing each other or 'eye-to-eye', as reported in another field observation. Conversations were reported as balanced between the members of the teams, as well 'fluent' and 'flowing smoothly'. The participants were often described as committed to the discussion by continuously completing each other's sentences about the value proposition of their third places – including education, intellectual centre and sustainability. (FN, S, C2).

Figure 46

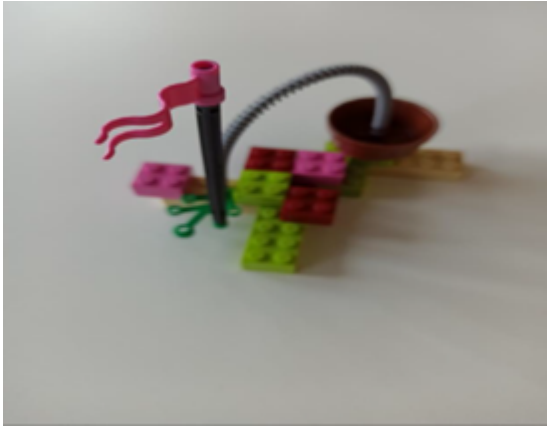


Partners observed pro-active and fruitful conversations between members of the team, that would eventually result in an emerging, common idea. [From Friday morning, Guided group session:] *"They would ask questions and take turns answering them and return in turn. They organized what they agreed on and wrote it down in a notebook. Along the way they created a concept map while writing in bullets their ideas for their 3rd Place title. O. gave the idea for the title, and they all agreed immediately. They then tried similar titles and finally settled on PLAYCE, Common Playce."* (FN, S, C2).

Staff interviews demonstrated that from partners' points of view it was felt that dialogue was being evidenced by participants to varying degrees, both between people and between people (participants and partners) and places/spaces and environments. Partners observed that participants engaged in dialogues in every phase of the course, between each other's and between participants and external actors, and local stakeholders during various activities (for example during the World Café Tables at the German Mining Museum) (SI, C2, S, p2).

Partners also observed that dialogue was implemented among participants *'in the different ways that we would hope dialoguing could happen'*: embodied, a verbal, between people, between people and ideas, between different disciplines, and with the local context. *('so they were sort of dialoguing with the city as well, which was very interesting, I thought. So that felt very evident, very strong.')* (SI, C2, S, p2).

Figure 47



I finally really enjoyed staying abstract with my building . The resulting construction worked really well to stimulate our group's discussion.' - a participant reflects on her emotions on day 4, during the maker workshop. Despite her distractions, she managed to join the activity and feel invested in the task. There were positive feelings in overcoming her barriers and she felt happy to generate discussion. (PL, C2)

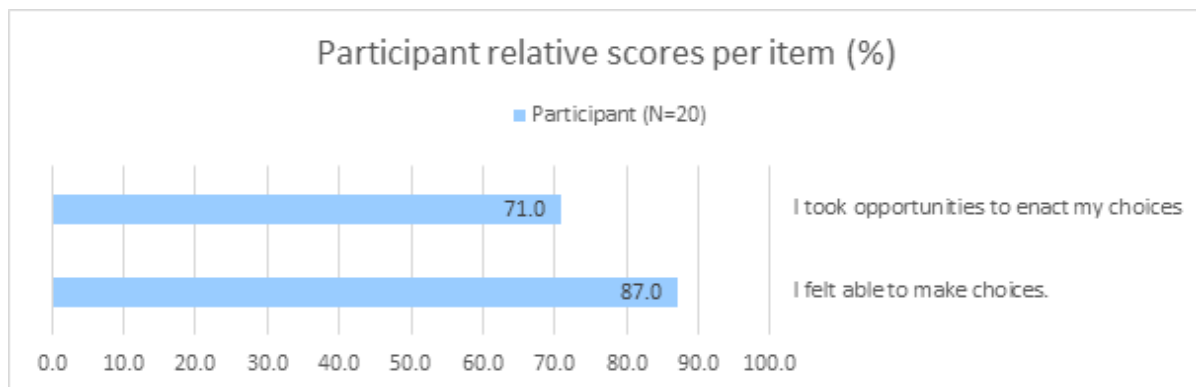
Figure 48



“The days before I was exhausted by feeling that group members were not listening to the others doing their own thing. I felt that at day 4 everyone quickly contributed ideas for our presentation and thereafter we quickly left the Maker Space as we were very exhausted” - A participant reflected on the group dynamics in the first three days and how they have changed on day 4. the participation of each group member favoured collaboration. The hard work also caused a sense of exhaustion. (PL, C2)

2B.2.4 Empowerment and Agency

Figure 49

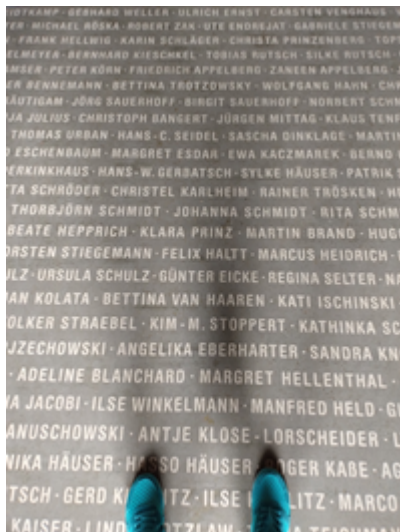


Graphics from the post course survey show that participants scored high on being able to make choices (87%), and only slightly lower on taking opportunities to enact choices (71%).

In the post-event Focus Group, one participant felt enabled to enact change thanks to the transdisciplinary *'wisdom and knowledge'* acquired from various sectors and from new domains such as entrepreneurship and design thinking gained through the course. Another enabling factor was empathy, because *'it's an art to be empathetic to, to know what the other people think and how they want to express what they feel'*. The ability to work as a team was also perceived as a form of agency and empowerment. The fast pace of the course together of the commitment of participants, resulted in a *'progressive way of thinking and to work'*, as one participant describes in the post-event Focus Group: they felt responsible for their own projects and enabled to make decisions that were necessary to further develop their Third Place (PostFG, C2, p6).

Staff interviews and photologs provided good evidence of empowerment and agency in action for the participants, especially in the way participants reacted to the challenge and how they tried to design innovative solutions and original Third Places that they felt could be implemented in the real world (SI, C2, S, p2). The knowledge and experiences provided throughout the course, as another tutor noted down, made participants feel empowered in tackling social, environmental and sustainability challenges (SI, C2, S, p1). The photologs from participants also provided some evidence of their reflections about agency and empowerment, especially regarding the role of stories and people in defining a place.

Figure 50



'What makes a space connectable? People and Stories.' A participant trying to define third places and its actors. [PL, C2]

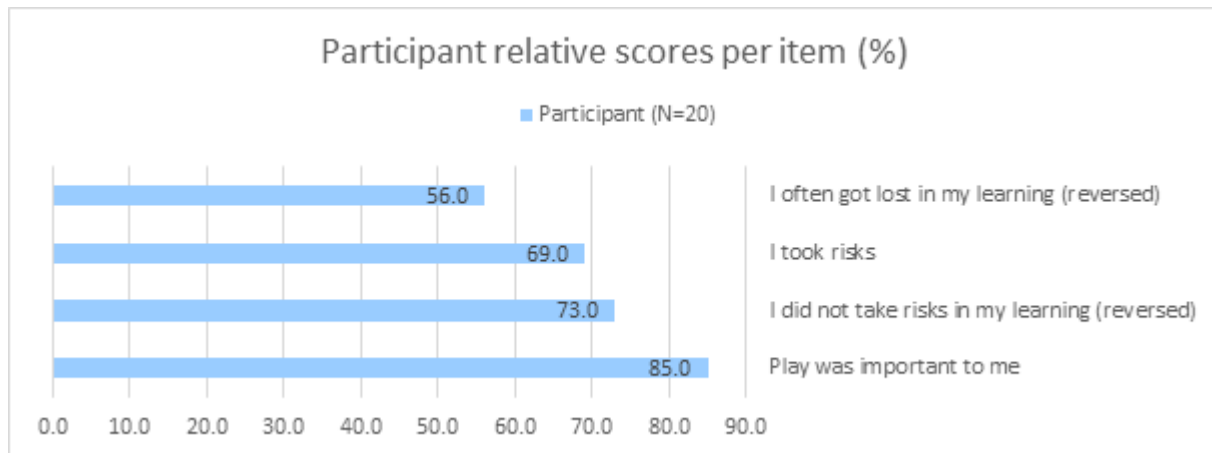
Figure 51



'Getting to know to burn for our ideas...' This image represents the fire place which was central during the presentation of one group on the last day. The participant describes it as seemingly giving her the idea of empowerment. [PL,C2]

2B.2.5 Risk, Immersion and Play

Figure 52



Survey statements highlighting the key feature Risk, immersion and play show a score inreclarger divided between risk and play: the participants scored lowest on 'I took risks' (69%), but they considered play very important (85%), while they sometimes might have felt that they got lost in their learning (56%).

From the post-even Focus Group, one participant expressed how they felt deeply connected and invested in the course and that this immersion peaked during one of the presentation on the last day: 'For me, the final moment when we were all holding hands together and I was "eating" (?) (making quotation marks with fingers) was very good, the last impression, it was an excellent impression because I think we will find ways to pass on the love that we have for nature to the others as well. This was very ascensive? to me, I felt it in the air. Love was in the air, love for nature, and that was very important, what I was feeling. I was feeling empathy. I was realising what the others felt.' (PostFG, C2, p7).

Field observations from partners also reported the participants fully immersed in the body movement session led by Kerry a group: *"some groups had to walk attached as a group, another group had to walk backwards only. They accidentally destroyed things, which led to an emotional reaction from the group."* (FN, S, C2). Tutors also reported that participants fully immersed in investigating the abstract qualities of the place [session led by K.] - people experimented with a common structure made out of *"cardboard boxes, paper straws as stars or bonfires, they cut out pieces, added strings to cardboards, included the building with its pillars."* (FN, S, C2). This involved also some risks, as pointed out by one silent observer, as some participants expressed negative feelings when their sculpture was moved or modified: *"Sometimes what we wanted to create had a different meaning, e.g. a "safe space" turned into a trap."* (FN, S, C2).

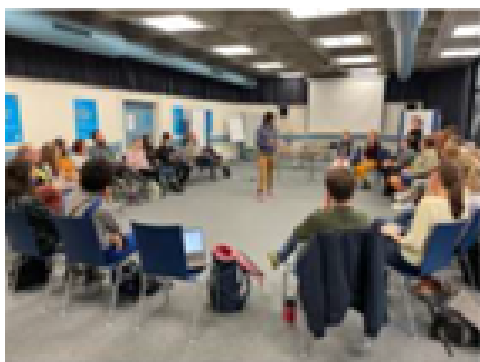
Immersion and play were strongly evident from the field notes of the partners on the last day, during the final presentations: participants played out characters enacting a theatre piece, for examples as "talk show host", capturing the full attention of the audience. Another group involved the audience in their final

presentation, by surrounding them with *“different mobiles to play sounds, introducing a soundscape of cars, and noise, the sound is slowly increased.”* People were so involved that the observed reported that: *“the audience members in the small space begin commenting on the sound and the space. Some have moved outside of the tight space. SS, a Maltese participant part of the audience, notes that it is like Malta. Group C begin to shout above the noise of the soundscape as part of their presentation. Group C stop the soundscape and shouting.”* (FN, S, C2). Immersion and play were also well manifested in another group presentation, in which the audience was asked gather around an umbrella “stand acting as a totem” and to write down their home addresses on a piece of paper and tie it to the umbrella with string. As described by the observers, participants engaged in play naturally: *“Next to the umbrella there is a paper with smaller colored papers stuck to, used by Group C to symbolize a firepit. LS sits around the ‘firepit’ and begins to sing a song. She is joined by other audience members who sit and join the singing around it.”* (FN, S, C2).

Even though playfulness was not new for one of the participants joining the post-even focus, tutors observed that this element emerged well when teaching “a bit more innovatively” through body movement, LEGO maker workshop and the soundscape workshop (SI, C2, S, p6). More specifically, another tutor reported that during the soundscape sessions, participants allowed themselves to play around some with different kinds of sounds and layers of sounds; also during activities at the Maker Space, participants experimented and had fun with ideas and creativity while developing their concepts (SI, C2, S, p2). One participant reported that *“games and fun are essential for a good workflow.”* in their photolog; the participant captured a moment of break where other peers played ping pong (PL, C2).

Risk was often mentioned in relation to the dynamics between participants. As one tutor reported that conflict resulted from learners spending a lot of time together and this was a risk taken since the beginning of the course. Some tutors also reported through the Staff interviews that participants were pushing their boundaries when trying ‘new things’ in a safe space. Additionally, photologs of participants reporting day 1 often featured reflection on getting to know each other and exploring a new space: the ice breaker activities involved dody movement in couples and expressing their opinion openly, exposing them to the risk of expressing and being in an uncomfortable position - to then enter a more playful mood.(PL, C2).

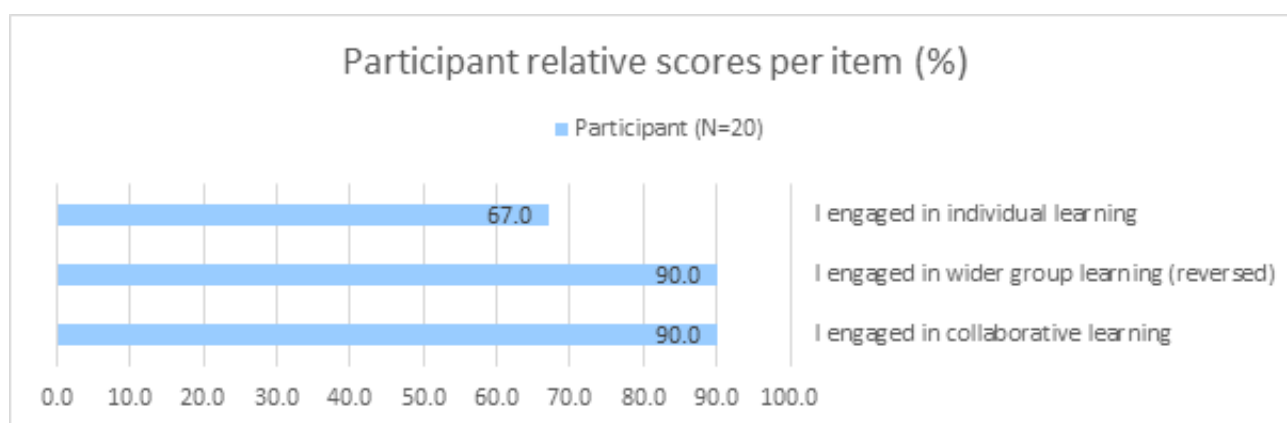
Figure 53



'Getting to know each other, strange at first' - This participant used the word 'strange' which gives me the impression that she felt uncomfortable (in a risk zone) by meeting a lot of new people. (PL, C2)

2B.2.6 Individual, Collaborative, Communal work

Figure 54



The participants felt that they engaged in group and collaborative learning (90 % score), while they to some extent engaged in individual learning (67%). The survey seems to confirm that the emphasis on group work in the course was really experienced by the participants.

Participants reported a balance between individual and collaborative working within groups. Groups often listened and integrated individual ideas, weaving different experiences and knowledge from various members. This was also appreciated "And it was nice to see who takes shot and how we could communicate together. ' (PostFG, C2, p4).

Team work was also central to the experience of another participant, as reported in the post-even focus group (PostFG, C2, p6). The group structure was the prevalent entity for another participant, representing the experience as: "*there was a group at the very centre because it was very intensive work in this small group. And then we had the tutors at the one side who was assisting. And on the other end it's all the others, so the bigger group, the whole workshop group. But for me, it was particularly intensive with the group. The home group I was in.*" (PostFG, C2, p7).

Staff interviews, fieldnotes and photologs offered a strong insight into the dynamics of individual, collaborative and communal activities for change. From the interviews this included the intensity of the collaborative experience

compared to the individual, as well as the repeat of the recurring SciCultureD pattern that a group is likely to dissolve with participants integrating and reforming into other groups; as well as acknowledgement of the groups' stretch into communal activities particularly with the local community; with other groups working to overcome conflict and stay connected. One silent observation reported that collaborative working was running smoothly and that "there seemed to be a strong level of trust among the group." The groups then connected with each other: *"At the end everybody was invited to enter the space, check out different angles and "find a place for yourself where you feel comfortable".* (FN, S, C2).

Participants also reported a sense a communal working thanks to the connection with the venues attended during the course and this emerged from their photologs – the communal garden at KoFabrik, the collaboration with the stakeholders at the German Mining Museum, and the possibilities offered at the MakerSpace.

Figure 55



'Working with my coursemates at the Makerspace has been a nourishing experience. This third place really encouraged me and I got to learn a lot. My journey to Germany started in a challenging way, and it is ending beautifully.' A participant reflected on her overall experience and how the collaboration with her group helped her experience a positive week. (PL, C2).

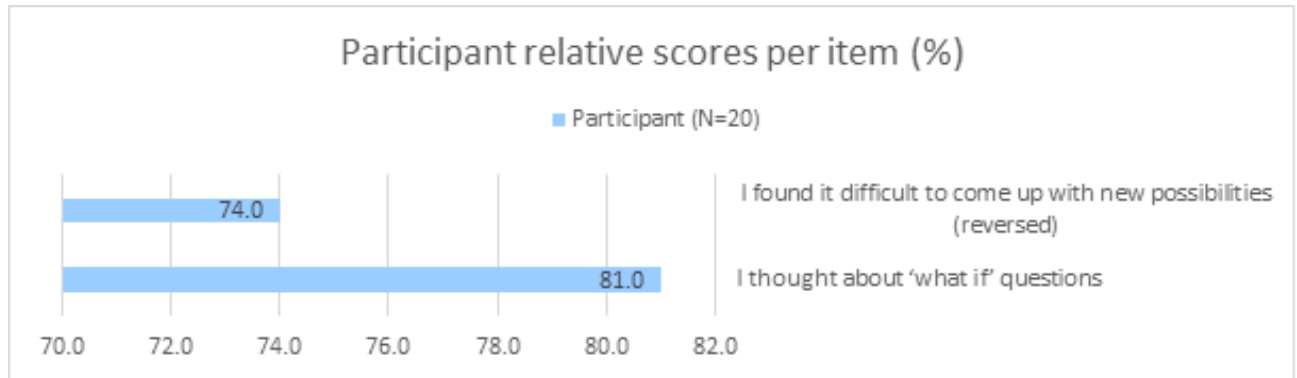
Figure 56



'Group mingeling'
Capturing the after workshop group picture at the German Mining Museum where the SciCultureD community worked together with local stakeholders on one common theme ' the future role of museums' - a collaborative activity with diverse actors from the same community. (PL, C2).

2B.2.7 Possibilities

Figure 57

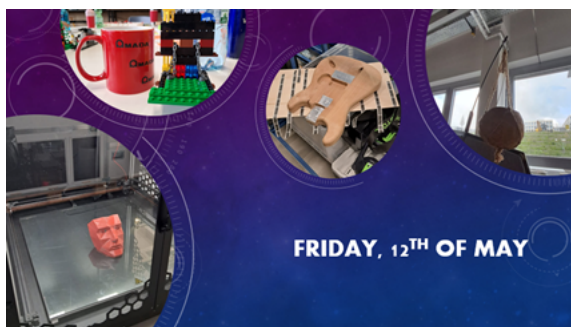


When it comes to the key feature possibilities, participants scored relatively high. The statement 'I thought about 'what if' questions scored 81%, while they found it a little bit more challenging to come up with new possibilities (reversed, scoring 74%)

Once given the challenge, participants explored various possibilities of third places and the meaning of such venues, both in their respective countries and in Bochum – this was evident during the ice breaker sessions and during the field trips. Photologs often reported collages with examples of third places found in Bochum, questioning the use of such places and the possibilities that such venues opened to attendees.

The body movement session led by Kerry on day 2 was another example on how participants explored the combinations of elements using different methods; This session, together with the inputs from other tutors helped participants to approach the challenge from different perspectives, opening up new opportunities (SI, C2, S, P2). One facilitator reported also that the variety and diversity of solutions proposed by the teams at the end of the course were also a result of the learning and experience possibilities offered by the course (SI, C2, S, p2).

Figure 58



This collage collects artistic elements found in one of the venues and the participants decided to put them together - giving me the sensation of possibilities that the venue offered them. (PL, C2)

Figure 59

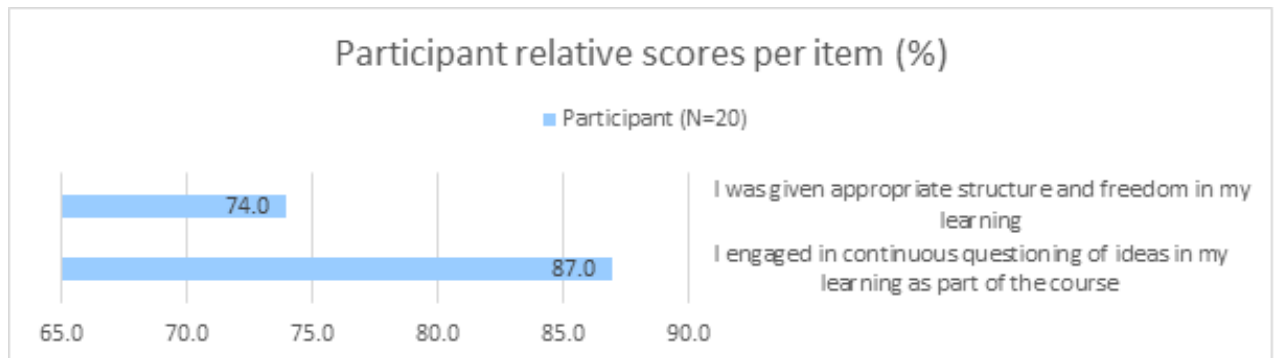


'Nonplace thirdplace'

The participant captured one central element in one of the performances and reflects on the possibilities created by such an element and how a non-place can become an actual place for someone. (PL, C2)

2B.2.8 Balance and Navigation

Figure 60



Participants scored relatively high on engaging in continuous questioning of ideas in their learning (87 %), and a bit lower on whether they were given appropriate structure and freedom in their learning (74%). In total, this gives a moderately positive score on the balance and navigation feature.

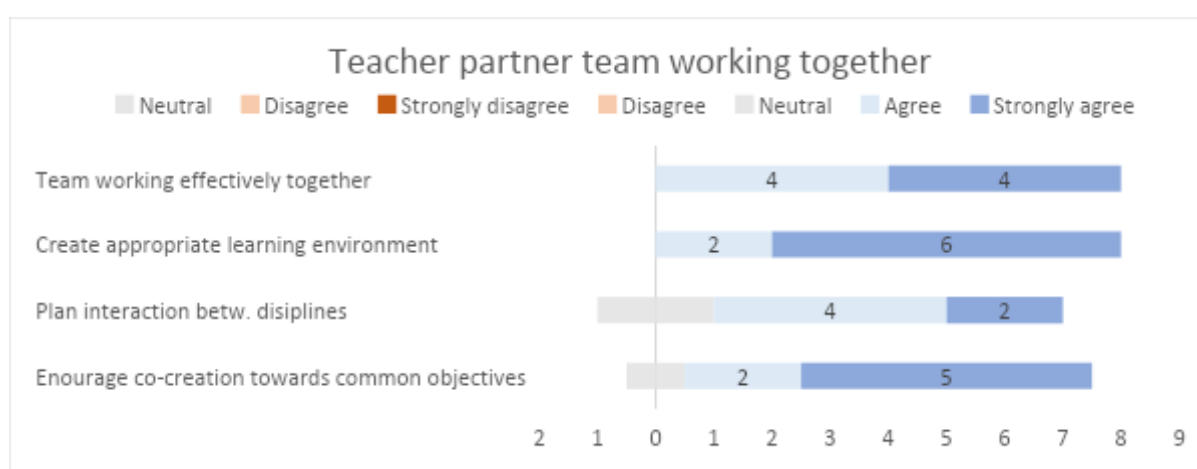
One participant observed that process felt progressive thanks to the role of 'decision-makers' and accountability they were given on their own projects [PostFG, C2, p6]. The discussions between team members also touched upon topics such as power dynamics and *"whether Third Places always need so many different actors "too many cooks burn the soup", and whether it would not be an option for a Third Places to have clear structures and a set of rules"* (FN, AK, C2) During the silent observations on the first day, one facilitator noted down that the presence and involvement of tutors were balanced *"Sometimes we need direct input and it quickly led to group work which I felt was good."*

When giving instructions and direct inputs, tutors were clear, concise and directly connected to the participants, as reported by the field notes.

3. How has the strategic partnership worked?

The self-reports examine the partners' post-course impression of effective teamwork during the course. They report on perceived success as a team at creating a learning environment for an intensive collaborative experience, their success at planning for interaction of different disciplines in the course, and if the team succeeded encouraging participants to do co-creation towards a common objective. Scores indicate mid-level or better, none indicate strong disagreement, and in some areas, there are high number of teachers indicating high level experiences during the course. The responses about their teamwork indicate perceived good team effort.

Figure 61



	Neutral	Agree	Strongly agree
How effectively did the Sci Culture team work together?	0	4	4
How effectively did the Sci Culture team create a learning environment for an intensive collaborative experience?	0	2	6
How effectively did the Sci Culture team plan for the interaction of different disciplines in the course?	2	4	2
How effectively did the Sci Culture team encourage co-creation towards a common objective?	1	2	5

Overall, the qualitative data supports these survey results to a large degree, while also adding nuances to how the partnership worked:

- The partnership, in general, is regarded as working well, and everybody knows “what each partner is bringing to the table” (SI, C2, S, p5). This ease between the partners influences the ease of the course (SI, C2, S, p5). There’s positive feedback between the partners, which nurturs the collaboration (SI, C2, S, p7). “I think we came together as a group, as a group of people, you know? And I really like that.” (SI, C2, S, p12). “So I think all of these colleagues

working in different ways, multiple different roles between all of us, I think, (...) we've got to a place with this version of the course where I think the strategic partnership works very well (...) there's a core understanding of what happens in the programme" (SI, C2, S, p5).

- "I think we're all passionate about this idea [SciCultureD]," one partner states. (SI, C2, S, p10).
- The organisation, accommodation and logistics of the course were regarded as excellent by all the partners. One partner states, "[i]t is one of the best organised courses of this kind that I have been involved in (...) really brilliantly, efficiently done by our German colleagues" (SI, C2, S, p5).
- One partner evaluates this course as better put together than the previous one. (SI, C2, S, p3).
- "When it comes to creativity, we're doing well" (SI, C2, S, p10), one partner states, pointing at SV's new badging system and HVL's concepts and ideas as examples.
- One partner thinks there were too many inputs/presentations on day one, but that the World Café session with other stakeholders on this day worked well. "The social event in the mining museum was great. The event in the first day and the mining museum was great as well" (SI, C2, S, p12).
- "I think Kerry's sessions on day two were really good, and how she edited them and adjusted them, and really tied them to design thinking process." (SI, C2, S, p12).
- The change of the science theatre session into storytelling was criticised by a couple of partners for not being known to everyone, and by one partner for not helping the participants to "pick their idea to the next step" (SI, C2, S, p11) and thus "[not being] good for the whole course" (SI, C2, S, p3).
- "Sometimes the business canvas has been ignored by participants, but in this case, because we tied it to the maker session, it worked" (SI, C2, S, p12).
- "I think [the design thinking expert's] input in terms of the design thinking, (...) the strength of conviction [the design thinking expert] could have to tell them where they're at in the process to help to hold this space confidently, I think that (...) really came through." (SI, C2, S, p5).
- One partner speaks highly of c2s's influence on the project: "having the new German colleagues involved (...) has been a real addition, with the, sort of, more practical headset that they tend to take as well" (SI, C2, S, p5).

In the partner interviews, recommendations around continuing to positively develop the SciCultureD courses were shared:

- A week or so before the course, "we should meet up to discuss the sessions themselves, to know exactly what is coming up as a final decision" (SI, C2, S, p6).
- "We're lagging behind on some deliverables. But I think now is the time to work on them." (SI, C2, S, p10). The partner is pointing at everybody in charge of deliverables to make a plan for how to deliver them, without needing reminders. "I hope the partners use the time to develop things because there's some really interesting things we can do, you know. [A]nd this is, I feel a bit, our last chance to get the last exciting things we're doing in the SciCultureD course and then build them in our institutions" (SI, C2, S, p13).

- The question of co-lead sessions was addressed by two partners, one stating, “it's better if it's more co-lead and it will make it more transdisciplinary” (SI, C2, S, p11). The other partner feels differently about this: “we had previously assumed that in order to role model transdisciplinarity you got to have two people side by side, standing there, delivering, when actually, I think, the conversations that build and strategise the session and then it might be led and supported by people working in different ways. I think that's another way to do it rather than having to have two people in a flat hierarchy kind of co-leading something” (SI, C2, S, p3).
- One partner calls for more flexibility, “allowing possibilities and allowing ourselves to change things last minute if we need to.” (SI, C2, S, p12).
- One partner stated, “the only thing that I think maybe (...) would be better, it would be for all of us to be there all the days”, in order for everyone to experience and understand the whole course better (SI, C2, S, p5).
- One partner would wish for the next course to “collaborate in a way that all the sessions will be really, really connected” (SI, C2, S, p3).
- Several partners call for the Ambassador network to be worked on going forward, to motivate the Ambassadors, and perhaps rethink and “try and embed it in the participants sooner” (SI, C2, S, p5).

This photolog captures the ‘coming together’ and ‘ease’ of the course as described by the partners:

Figure 62



*‘Family photo.’
(PL, C2)*