Table. 2. Display with Sources and Indicators. Overview of results (Author contribution)

Source	Indicators for outcomes of interdisciplinary approach	Students' self-reported outcomes To Some Degree (SD), High Degree (HD), Low Degree (LD)	Analysis
Cross-survey data	1. New ideas for teaching sustainability in school	68% (SD+HD),32% (LD)	Acceptable and important result compared to SC objectives for interdisciplinary approach
	2. New knowledge about UN Goals for Sustainable Development	68% (SD+HD),33% (LD)	Acceptable and important result compared to SC objectives for interdisciplinary approach
	3. New knowledge about UNESCO and teaching sustainability	60% (SD+HD), 39% (LD)	Acceptable and important result compared to SC objectives for interdisciplinary approach
	4. Intercultural knowledge	75% (SD+HD), 25% (LD)	**Very good** and important result compared to SC objectives for interdisciplinary approach
	5. Inspiration for action - action competence	68% (SD+HD), 33% (LD)	Acceptable and important result compared to SC objectives for interdisciplinary approach
	6. English language competences	61% (SD+HD), 41% (LD)	Acceptable and important result compared to SC objectives for interdisciplinary approach
	7. Knowledge and experience with problem-based learning	59% (SD+HD), 41% (LD)	Acceptable and important result compared to SC objectives for interdisciplinary approach
	8. Knowledge and experience with Socio-scientific issues	67% (SD+HD), 17% (LD)	Acceptable and important result compared to SC objectives for interdisciplinary approach
Answers Open fields in survey • Other outcomes • Representative	1. New ideas for teaching sustainability in school	I have learned a lot of new things that I will take with me when it is my time to teach. Example making posters about different kinds of sustainability; I have learnt new creative ways how to introduce sustainability to younger learners; I learned how to be able to teach in different levels because first up we have been taught ourselves and afterwards made a lesson plan for a class of our	Acceptable and important result compared to SC objectives for interdisciplinary approach.

Table. 2. Display with Sources and Indicators. Overview of results (Author contribution)

Source	Indicators for outcomes of interdisciplinary approach	Students' self-reported outcomes To Some Degree (SD), High Degree (HD), Low Degree (LD)	Analysis
quotes • Original spelling **Student voice**		choice, which we then presented to other groups and gained insight in different levels of learning;	
	2. New knowledge about UN Goals for Sustainable Development	-	Weak result compared to SC objectives for interdisciplinary approach. Maybe because covered in survey. See also 'cross-survey data nr. 2
	3. New knowledge about UNESCO and teaching sustainability	I've become aware of the fact that it is our responsibility as future teachers to try and pass on important knowledge on some of these subjects, although it would have been nice to have a foundation for how to use it; I wouldn't say I learned a lot new about the subject itself. I did get to work with how I can implement it in teaching classes; I have learned a lot about sustainability, but I have had trouble understanding why this is related to our education.	Acceptable and important result compared to SC objectives for interdisciplinary approach. Respondents are 1st year students, so uncertainty about teaching is expected.
	4. Intercultural knowledge	I have learnt about sand in Greenland, sand crisis and how it affects people in the world; /…/I get that we had to speak English which extends our vocabulary, but it just didn't work. On the other hand, I did learn about new topics regarding to environmental world problems and about different cultures (Czech) and their gender problems.	Acceptable and important result compared to SC objectives for interdisciplinary approach.
	5. Inspiration for action - action competence	I learnt how to think more about the clothing I buy and how to be more resourceful with clothing; I learned to think more about the clothes I buy, and how to be more sustainable. I also got some ideas for teaching sustainability in a classroom;	Acceptable and important result compared to SC objectives for interdisciplinary approach. Indicators of individual actions at personal level. Integrated with double-didactic perspective: Students must learn about sustainability to teach pupils.
	6. English language competences	I have learned a lot of new things that I will take with me when it is my time to teach. Example making posters about different kinds of sustainability; I get that we had to speak English which extends our vocabulary, but it just didn't work. On the other hand, I did learn about new topics regarding to environmental world problems and about different cultures /…/	Acceptable and important result compared to SC objectives for interdisciplinary approach. It is challenging to study ESL combined with socio-scientific issues.
	7. Knowledge and experience with problem-based learning	I learned about a new global issue that I never would have guessed was this big of an issue; It is knowledge that I will bring with me into my classroom in the future.	Acceptable and important result compared to SC objectives for interdisciplinary approach. Awareness of

Table. 2. Display with Sources and Indicators. Overview of results (Author contribution)

Source	Indicators for outcomes of interdisciplinary approach	Students' self-reported outcomes To Some Degree (SD), High Degree (HD), Low Degree (LD)	Analysis
			systemic problems and the challenge of individual actions.
	8. Knowledge and experience with Socio-scientific issues	I gained a lot of new knowledge when it comes to the sociocultural issue of the sand crisis; I have learnt about sand in Greenland, sand crisis and how it affects people in the world; How you can wear old clothes to make new things and use them in class; I did not learn much, because I think that this generation (my generation) already knows this stuff;	Acceptable and important result compared to SC objectives for interdisciplinary approach. Awareness raised about dilemma: 'knowing' and hesitating to 'act according to knowledge'
Student speeches **'Student voice'**	1. New ideas for teaching sustainability in school	We have learned a lot about different sustainability topics and the relevance it has for us as future teachers. We have also been working with different teaching aspects and the benefits of intercultural competencies and with different teaching aspects and the benefits in cultural competencies as well as working with interdisciplinary teaching.	Acceptable and important result compared to SC objectives for interdisciplinary approach.
	2. New knowledge about UN Goals for Sustainable Development	We have been through the 17 Sustainable Development Goals and these problems are relevant all over the world.	Acceptable and important result compared to SC objectives for interdisciplinary approach.
	3. New knowledge about UNESCO and teaching sustainability	/…/ we had sustainable consumption materials and sources, where we learned how to reuse and upcycle the old products into didactic tools that could be used in classes; We have also been working with different teaching aspects and the benefits of intercultural competencies and with different teaching aspects and the benefits in cultural competencies as well as working with interdisciplinary teaching.	Acceptable and important result compared to SC objectives for interdisciplinary approach.
	4. Intercultural knowledge	You need to stay actively critical of global news and be introduced to people from different parts of the world and expand our cultural knowledge, and that's something that we got to do very well in this module; I hope that what I've said today has brought to you some level of understanding as to why it's important to include all voices and people around the world when we're trying to find solutions so that we can collectively save our planet.	**Very good** and important result compared to SC objectives for interdisciplinary approach. Indications of critical thinking. Indications of empowerment and students taking responsibility on 'their shoulders'.
	5. Inspiration for action - action competence	I really hope that you have enjoyed what we have prepared for you today; /…/And then we had sustainable consumption materials and sources where we learned how to reuse and upcycle the old products into didactic tools that could be used in classes.	**Very good** and important result compared to SC objectives for interdisciplinary approach. Indicators of critical thinking. Especially having in

Table. 2. Display with Sources and Indicators. Overview of results (Author contribution)

Source	Indicators for outcomes of interdisciplinary approach	Students' self-reported outcomes To Some Degree (SD), High Degree (HD), Low Degree (LD)	Analysis
		We have had some exchange students who participated in the study groups that we work with, and this has been exciting also to know we are able to improve the course going forward and make it better for the future.	mind that teaching is an action for future students.
	6. English language competences	And in my study group, we chose to make a didactic 'communication ball' which is going to have the purpose of learning students how to communicate well. And for example, I like that every single student likes to get the chance to speak.	Acceptable and important result compared to SC objectives for interdisciplinary approach. Intercultural communication competences is part of ESL.
	7. Knowledge and experience with problem-based learning	As we have learned through the module, information, other cultural opinions and overall awareness – are a crucial part in taking the big steps towards a better future. To be able to teach about the environmental impacts and crises overall, we first need to be informed.	Acceptable and important result compared to SC objectives for interdisciplinary approach.
	8. Knowledge and experience with Socio-scientific issues	We had 'sustainable diets', where we got to learn about the environmental footprint of food and other problems, and here we got some deeper knowledge about eating habits and life tools for teaching in the future that we can use in classes.	Acceptable and important result compared to SC objectives for interdisciplinary approach.
Student posters	1.New ideas for teaching sustainability in school	**Poster image 1:** The graphic illustration supports the impression of an educational resource that is 'ready to use' by the chosen 'school typo' and squared background. The intended learning outcomes regarding up- and recycling of textiles is integrated with learning outcomes for English Grammar. The poster includes both the cognitive (knowledge), socio-emotional and behavioral domains and apply several of the eight themes for interdisciplinarity, especially 1.New ideas for teaching sustainability in school; Inspiration for action - action competence; English language competences; Knowledge and experience with Socio-scientific issues. **Poster image 2:** In the upper section of the poster the introduction states what the interdisciplinary intentions were by choosing a socio-scientific issue, linked with some of the UNSDGs and combined with educational activities	Acceptable and important result compared to SC objectives for interdisciplinary approach. Student group products provide highly valuable insight in how students are transforming 'what was taught' into 'what was learned' regarding their own potential lesson plan. Some groups tested these educational resources in the following internship at schools in January 2024.
	2. New knowledge about UN Goals for Sustainable Development	**Poster image 2:** In the upper section of the poster the introduction states what the interdisciplinary intentions were by choosing a socio-scientific issue, linked with some of the UNSDGs and combined with educational activities	

Table. 2. Display with Sources and Indicators. Overview of results (Author contribution)

Source	Indicators for outcomes of interdisciplinary approach	Students' self-reported outcomes To Some Degree (SD), High Degree (HD), Low Degree (LD)	Analysis
	3. New knowledge about UNESCO and teaching sustainability	**Poster image 2:** This group included an illustration of the didactical model that they applied: the four-stage model of intercultural learning	
	4.Intercultural knowledge	**Poster image 2:** Intercultural collaboration is suggested as an action-oriented method for protecting the forest and thus, students argue that their main topic is 'actually' intercultural competences (included in ESL curriculum).	
	5. Inspiration for action - action competence	**Poster image 1:** According to students' action-oriented perspective: "the purpose of doing the games with used textiles will make them want to save more and teach them about the importance of new versus better"(last line in text). **Poster image 2:** Intercultural collaboration is suggested as an action-oriented method for protecting the forest.	
	6. English language competences	**Poster image 1:** The intended learning outcomes regarding up- and recycling of textiles is integrated with learning outcomes for English Grammar.	
	7. Knowledge and experience with problem-based learning	**Poster image 2:** The didactical intentions underlying their lesson plan about how to 'Protect the forest'	
	8.Knowledge and experience with Socio-scientific issues	**Poster image 1 and 2:** Regarding indicators of students interdisciplinary learning outcomes, the poster includes both the cognitive (knowledge), socio-emotional and behavioral domains.	