



Education for Sustainable Development in EL Teacher Education

Webinar & Workshops

ESD Pedagogies and Implementation in EFL Classroom

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What are some characteristics of ESD?



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What Is Pedagogy?



Pedagogy is a method of teaching in which teachers teach, both in theory and in practice. Pedagogy is shaped by educator's teaching beliefs and involves their understanding of culture and different learning styles.

It is essential for students to have meaningful classroom relationships in order to build on prior learning.

Pedagogy refers to the way of teaching students, whether it is the theory or practice of educating. It is a relationship between the culture and techniques of learning.

The main aim of pedagogy is to build on previous learning of the students and work on the development of skills and attitudes of the learners. Pedagogy enables the students to get a thorough understanding of the subject and helps them in applying those learning in their daily lives outside of the classroom.

Pedagogy in teaching can be referred to as an educator's understanding of how the students learn. The teachers are focused on presenting the syllabus to the students in such a way that it is relevant to their needs.

Teacher pedagogy refers to the pedagogy that is centered towards the teacher, who gives the most meaningful course information. In this approach, the teacher has a large responsibility of giving correct information to the students in the right way, irrespective of their teaching styles. The teacher can give a clear understanding of how the students are doing concerning their learning and also be an effective model for the target language.

Types of Pedagogy

1. Social Pedagogy:

It is aimed towards the social development, awareness, and well-being of the students. The teaching must consist of values and moral education.

2. Critical Pedagogy:

It aims towards comprehending and deconstructing several daily life problems and issues. It encourages the student to dig deeper into things and try to understand their thoughts and beliefs on a certain topic.

3. Culturally Responsive Pedagogy:

It aims to address the cultural diversity among students. It helps to comprehend cultural differences among the students and increases awareness about cultural differences in school.

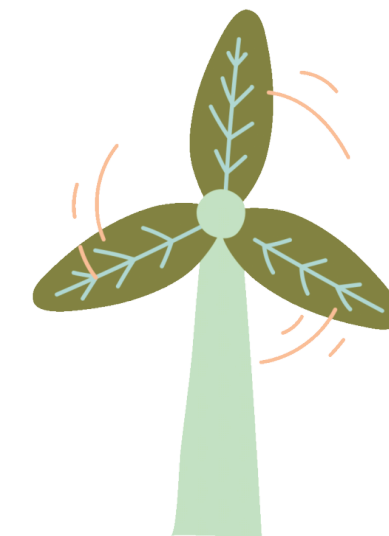
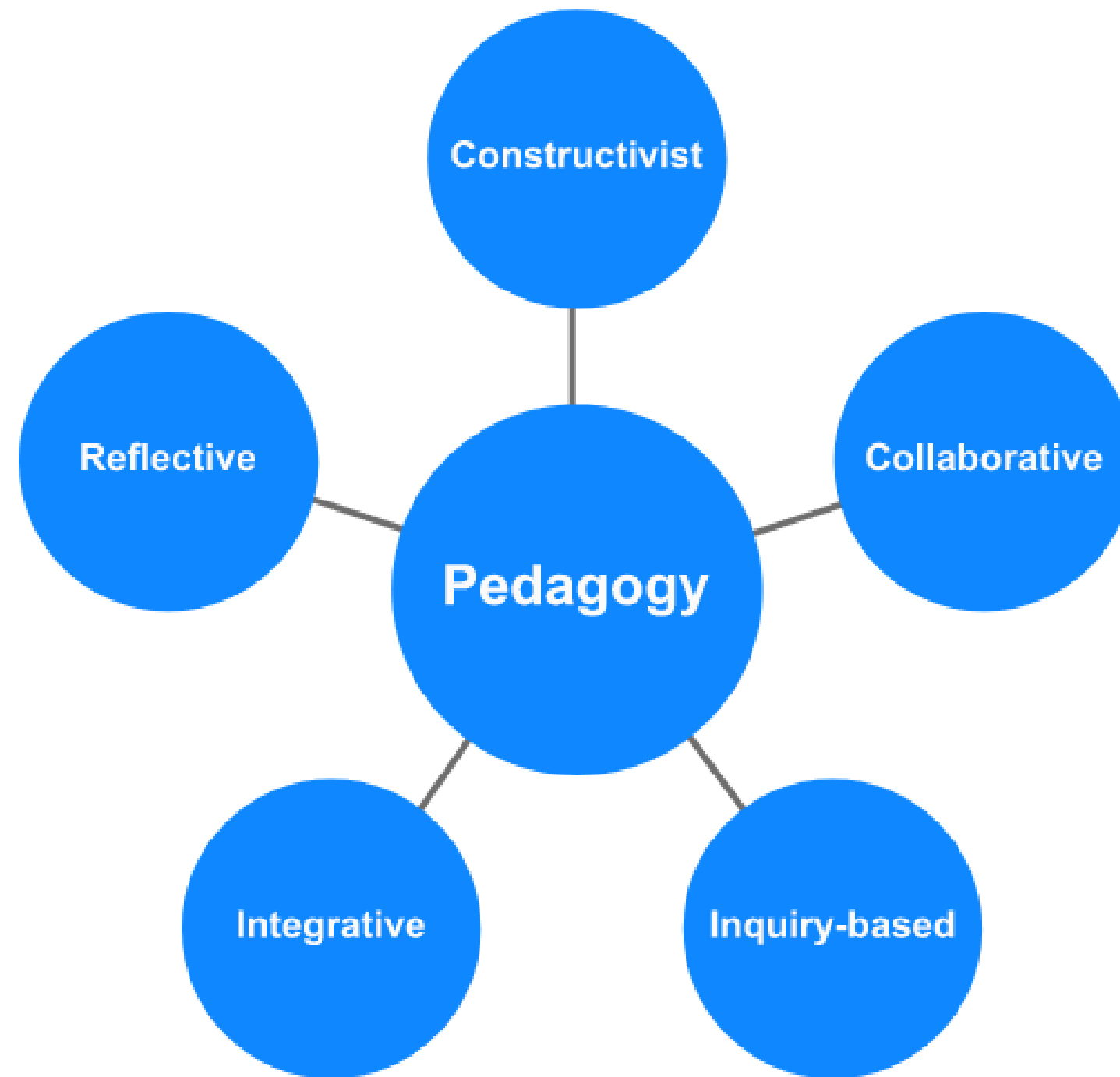
4. Socratic Pedagogy:

It aims to encourage the students to gain more knowledge from other sources along with what is provided to them. This helps the students to find alternative solutions to the problems.



There is no 'correct' pedagogy for sustainability education, but there is a broad consensus that it requires **a shift towards active, participative, and experiential learning methods** that engage the learner and make a real difference to their understanding, thinking and ability to act.

Here are five approaches we can take to build the learning environment:





Major Approaches in Education

- 1. Critical reflection** – including the more traditional lecture, but also newer approaches such as reflexive accounts, learning journals, and discussion groups.
- 2. Systemic thinking and analysis** – the use of real-world case studies and critical incidents, project-based learning, stimulus activities, and the use of the campus as a learning resource.
- 3. Participatory learning** – with emphasis on group or peer learning, developing dialogue, experiential learning, action research/learning to act, and developing case studies with local community groups and business
- 4. Thinking creatively for future scenarios** – by using role play, real-world inquiry, futures visioning, problem-based learning, and providing space for emergence.
- 5. Collaborative learning** – including contributions from guest speakers, work-based learning, interdisciplinary/multidisciplinary working, and collaborative learning and co-inquiry

ESD Pedagogies

ESD gives learners of all ages the knowledge, skills, values and agency to address interconnected global challenges including climate change, loss of biodiversity, unsustainable use of resources, and inequality.

EFL teaching can be used to promote sustainable development goals by integrating the concept of sustainable development into the curriculum and teaching materials.

This can be done by linking English language teaching (ELT) with the **Sustainable Development Goals (SDGs)**.

Case studies can be used as a pedagogical approach to provide students with real-life scenarios to analyze and evaluate complex issues related to the SDGs. Technology-enhanced courses can also be utilized to incorporate sustainability education, such as using social media platforms like Facebook and Edmodo for discussions and project planning.

Additionally, an Education for Sustainability (EfS) theoretical framework can guide the teaching and learning process by providing scientific and technical skills, as well as the motivation and social support needed for individuals to pursue and apply their skills for a sustainable future.

<https://typeset.io/papers/learning-about-sustainable-development-goals-through-english-gmga65l2gx>



Key Competencies for ESD

| Ways of thinking | Ways of practicing | Ways of being |
|--|----------------------------|---------------------------|
| Systems thinking | Strategic competency | Self-awareness competency |
| Anticipatory competency (Future thinking) | Collaboration competency | Normative competency |
| Critical Thinking | Integrated problem solving | |

Situating ESD competencies central to curricula can transform how staff and students view issues related to SD. This can lead to both parties questioning their own and societies' ways of thinking, ways of practicing and ways of being, which is central to a transformational learning experience.

| Competency | A student who displays this competency can: |
|---|--|
| Systems thinking competency | <ul style="list-style-type: none"> ▪ recognise and understand relationships ▪ analyse complex systems ▪ consider how systems are embedded within different domains and scales ▪ deal with uncertainty |
| Anticipatory competency (Future thinking) | <ul style="list-style-type: none"> ▪ understand and evaluate multiple outcomes ▪ create their own visions for the future ▪ apply the precautionary principle ▪ assess the consequences of actions ▪ deal with risks and changes |
| Critical thinking competency | <ul style="list-style-type: none"> ▪ question norms, practices and opinions ▪ reflect on one's own values, perceptions and actions ▪ take a position in the sustainable development discourse |

Ways of thinking



| | |
|---------------------------------------|--|
| Strategic competency | <ul style="list-style-type: none">▪ develop and implement innovative actions that further sustainable development at the local level and further afield |
| Collaboration competency | <ul style="list-style-type: none">▪ learn from others (including peers, and others inside and outside of their institution)▪ understand and respect the needs, perspectives and actions of others▪ deal with conflicts in a group▪ facilitate collaborative and participatory problem solving |
| Integrated problem-solving competency | <ul style="list-style-type: none">▪ apply different problem-solving frameworks to complex sustainable development problems▪ develop viable, inclusive and equitable solutions▪ utilise appropriate competencies to solve problems |

Ways of practicing



| | |
|---------------------------|---|
| Self-awareness competency | <ul style="list-style-type: none">▪ reflect on their own values, perceptions and actions▪ reflect on their own role in the local community and global society▪ continually evaluate and further motivate their actions▪ deal with their feelings and desires |
| Normative competency | <ul style="list-style-type: none">▪ understand and reflect on the norms and values that underlie one's actions▪ negotiate sustainable development values, principles, goals and targets, in a context of conflicts of interests and trade-offs, uncertain knowledge and contradictions |



Learning Outcomes and ESD competences

- ESD aims to enable learners to make informed decisions and evaluate the consequences of their actions for current and future stakeholders - all of which can be encouraged via the competencies and learning outcomes at course and modular level.
- Where there are currently no relevant ESD course-level learning outcomes, academics are encouraged to explore revisions to the course framing and core outcomes so as to include ESD, or to translate existing approaches so as to make ESD more overt.



| Learning outcomes | | |
|--|--|--|
| Knowledge | Skills | Attributes and values |
| A student with systems thinking competency can: | | |
| <ul style="list-style-type: none"> Describe the relationships between environmental, social and economic systems, at scales from local to global level Identify the tensions between the 17 SDGs and recognise their interconnections Recognise that a collective effort is not necessarily just a simple sum of each individual's effort, but is likely to be more complex and have multiple drivers that may be personal, political or communal Identify that positive or negative environmental change may arise from economic growth Describe how power structures and political systems influence SD | <ul style="list-style-type: none"> Recognise and understand relationships Analyse complex systems Consider how a system's constituent parts interact and operate at different scales and across time Work with interconnectedness and complexity in a systemic context, synthesising diverse information and data to offer a range of potential solutions Identify the interactions between social, economic and environmental systems Assess a problem from different scales and perspectives | <ul style="list-style-type: none"> Think systemically, in terms of recognising connections and interactions between factors, and understand that actions often have multiple consequences Deal with and manage uncertainty Appreciate the root causes of unsustainable development including environmental, social and economic actions, and their links to cultural considerations Identify the factors that have the biggest potential for driving constructive change |

| Learning outcomes | | |
|--|---|---|
| Knowledge | Skills | Attributes and values |
| A student with anticipatory thinking competency can: | | |
| <ul style="list-style-type: none"> Identify the risks associated with complex systems that can lead to unintended consequences or negative cumulative effects Evaluate the impacts and interconnections between the activities of different generations, demographic groups and cultures, recognising that there may be tensions and competing factors between them Identify the causes and possible solutions to inequity at intragenerational and intergenerational global levels Identify that natural systems have non-negotiable limits and may become unstable or collapse if subjected to excessive pressures or changes Identify risks and uncertainties associated with the transformation of the natural environment Identify the need for decisions about natural resources to involve judgements, not just about economic viability but about risks to future ecological, social or cultural wellbeing | <ul style="list-style-type: none"> Generate and evaluate different approaches to SD and assess their likely impact, within the context of their own discipline/subject Use historical knowledge and an understanding of the consequences of past actions to envision how futures may be shaped Develop, understand and evaluate multiple outcomes Create their own visions for the future Apply the precautionary principle Assess the consequences of actions Evaluate risks and their potential impacts Identify future scenarios and use them to inform decision making Use backcasting skills - starting with defining a desirable future and working backwards to identify policies and programmes that will connect that to the present Use forecasting skills - looking at past trends and present conditions to extrapolate anticipated future outcomes | <ul style="list-style-type: none"> Be flexible, resourceful and adaptable to fit changing and/or unforeseen circumstances if it is likely to have a positive outcome for SD Imagine and envision sustainable futures Consider the impacts, both positive and negative, of heritage and cultures when planning for the future Apply an awareness of intergenerational fairness to decisions and planning Be prepared to learn from others and consider their perspectives Learn to unlearn when situations and contexts demand alternative solutions Demonstrate an open mindset to new approaches to problem solving |

| Learning outcomes | | |
|--|--|---|
| Knowledge | Skills | Attributes and values |
| A student with critical thinking competency can: | | |
| <ul style="list-style-type: none"> ▪ Draw upon scientific evidence and scholarly research to develop understanding of SD and the impact of human activity upon it ▪ Identify the rationale for encouraging behavioural change, where existing practices are shown to have a negative impact on the human and natural environment ▪ Identify change makers who have made positive contributions and draw upon their practices to enhance understanding | <ul style="list-style-type: none"> ▪ Present a simplified view of a concept ▪ Identify and formulate critical questions and problems ▪ Assess new information and continuously incorporate it into existing models as they develop ▪ Critically assess and analyse SD issues within the context of their own discipline/subject area or future profession/career intentions ▪ Analyse, synthesise and evaluate data and information and reach well-reasoned conclusions and solutions, testing them against relevant criteria and standards ▪ Differentiate evidence based conclusions from opinion and conjecture | <ul style="list-style-type: none"> ▪ Demonstrate the capacity for independent, evidence-based integrated thinking as the foundation for developing their personal ethical code ▪ Evaluate the consequences of their own actions and of collective actions ▪ Reflect on their own values, perceptions and actions, comparing and contrasting them to others who may have influence ▪ Take an evidence-based position in the SD discourse ▪ Recognise their assumptions and evaluate the potential implications and consequences of them |

| Learning outcomes | | |
|--|---|---|
| Knowledge | Skills | Attributes and values |
| A student with normative competency can: | | |
| <ul style="list-style-type: none"> Identify the wide range of human cultures in existence, and understand both the benefits and the challenges that these cultures present in terms of SD Demonstrate that both unsustainable and sustainable practices take place in an evolving context, necessitating adaptability in policy and planning responses Identify the interactions between human communities and ecological systems, and be able to assess the potential impacts upon each other Identify ethical questions and use ethical frameworks Identify practical interventions for sustainability challenges | <ul style="list-style-type: none"> Tackle and negotiate SD conflicts with an awareness of different perspectives and motivations Identify the opportunities to support and develop a progressive and resilient culture that encourages citizens, professions and institutions to put learning into practice Debate and explore fairness and justice, including social justice Develop alternative solutions that provide new opportunities for engagement with SD | <ul style="list-style-type: none"> Negotiate SD values, principles, goals and targets, in a context of conflicts of interests and trade-offs, uncertain knowledge and contradictions Understand and reflect on the norms and values that underlie one's actions Engage with and understand different world views Appreciate, critique and value different cultural contexts |

| Learning outcomes | | |
|---|--|--|
| Knowledge | Skills | Attributes and values |
| A student with self-awareness competency can: | | |
| <ul style="list-style-type: none"> ▪ Identify and evaluate their own competences and learning needs ▪ Understand their own heritages and cultures ▪ Identify the importance of empowering individuals and organisations to work collaboratively ▪ Understand how power structures and political systems influence SD ▪ Identify the wide range of human cultures in existence and understand both the benefits and the challenges that these cultures present for SD | <ul style="list-style-type: none"> ▪ Employ leadership for SD by challenging assumptions and negotiating alternatives to unsustainable current practices, especially within their own discipline or subject area ▪ Actively implement or contribute to changes that promote SD within the scope of their own learning experience and study environment ▪ Take responsibility for their own learning and skills development ▪ Facilitate and mediate progressive discussions among stakeholders to resolve dilemmas and conflicts | <ul style="list-style-type: none"> ▪ Clarify their own views on ways that SD can be achieved in different local and global communities and circumstances ▪ Access and engage with their own and other cultures and heritages ▪ Maintain healthy mental and emotional state and be aware of their mental and emotional health, in particular to: <ul style="list-style-type: none"> ▶ reflect on their own values, perceptions and actions ▶ reflect on their own role in the local community and global society ▶ continually evaluate and further motivate their actions ▶ be aware of and engage with their own emotions ▶ make meaning in the work they do |

| Learning outcomes | | |
|---|--|---|
| Knowledge | Skills | Attributes and values |
| A student with integrated problem-solving competency can: | | |
| <ul style="list-style-type: none"> Describe the potential for their discipline to interconnect with other disciplines or areas of expertise and make creative leaps forward Describe how aspects of their own area of study contribute to SD and connects to the UN SDGs Appreciate research methods from different disciplines Understands the academic norms of a discipline and explore disciplinary integrity | <ul style="list-style-type: none"> Use and apply established frameworks and methodologies for analysing the impact(s) of a behaviour or process, utilising the skills and expertise developed through their own area(s) of study Apply different problem-solving frameworks to complex SD problems Develop viable, inclusive and equitable solutions Effectively engage with real-life problems relevant to SD Combine different sources and types of evidence, drawing from different disciplines, to view and address a problem | <ul style="list-style-type: none"> Utilise appropriate competencies to identify and solve problems Communicate effectively with others to identify solutions to complex problems Listen critically when presented with alternative ideas or frameworks, systems and ideas Work effectively in multidisciplinary and interdisciplinary groups Consider academic norms and ways of thinking across different disciplines and subject areas, bringing them into play as appropriate |

| Learning outcomes | | |
|---|---|---|
| Knowledge | Skills | Attributes and values |
| A student with collaborative competency can: | | |
| <ul style="list-style-type: none"> Understand the value of collaborating with others offering different knowledge, views and experiences Identify and critique differing approaches to collaboration Recognise group management strategies Recognise verbal and non-verbal communication skills and their role in group cohesion Recognise the goals, skills and needs of others as part of successful collaboration | <ul style="list-style-type: none"> Communicate effectively through listening, clarity of expression and constructive inquiry Engage in interdisciplinary discussion to inform their thinking about sustainable futures and seek holistic, creative solutions to problems Identify the importance of encouraging and enabling individuals and organisations to work together to create new knowledge Clearly communicate complex SD issues to others Facilitate and mediate progressive discussions among interested parties (stakeholders) to help resolve dilemmas and conflicts Listen actively and critically Connect, adapt and synthesise what they learn Address conflict and develop mediation skills Utilise appropriate leadership styles | <ul style="list-style-type: none"> Learn from others including peers, professionals, expert groups and communities Deal with conflicts in a group Facilitate collaborative and participatory problem solving Assist others through peer learning Question norms, practices and opinions Understand and respect the needs, perspectives and actions of others Empathise with the views and experiences of others Collaborate equitably across gender, ethnicity and other groups |

| Learning outcomes | | |
|---|---|--|
| Knowledge | Skills | Attributes and values |
| A student with strategic thinking competency can: | | |
| <ul style="list-style-type: none"> ▪ Identify the root causes of unsustainable development, including environmental, social and economic actions ▪ Understand how emotional and cognitive awareness can influence decision making ▪ Identify then enact changes to actions or behaviours where existing practices have a negative impact ▪ Appreciate how aspects of their own discipline contribute positively or negatively to SD ▪ Understand the risks and uncertainties associated with the transformation of the natural environment | <ul style="list-style-type: none"> ▪ Link the environmental, social and economic actions to cultural considerations ▪ Evaluate the impact of and connections between the activities of different generations, demographic groups and cultures, recognising that there may be competing factors between them ▪ Identify SD strategies to facilitate and mediate progressive discussions among interested parties (stakeholders) to help resolve dilemmas and conflicts ▪ Develop and implement innovative actions that further SD at the local level and beyond ▪ Use planning and assessment tools to identify and address SD challenges and opportunities | <ul style="list-style-type: none"> ▪ Practise decision-making and analyse consequences of decisions made ▪ Undertake reflection on actions and behaviours ▪ Integrate thinking as a foundation for developing their personal ethical code ▪ Demonstrate flexibility and resourcefulness and adapt a problem-solving mindset to fit changing or unforeseen circumstances ▪ Demonstrate a commitment to lifelong learning |

Breakout Rooms Discussion

Developing learning environments to support for ESD

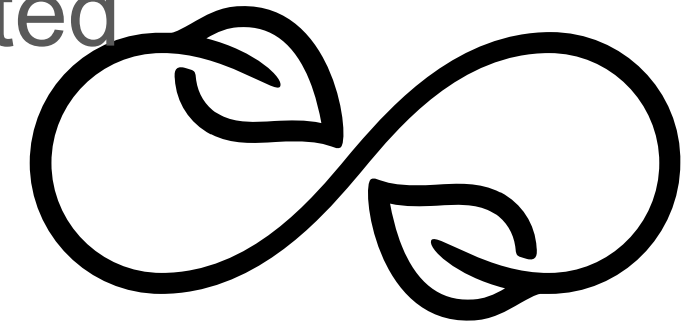
ESD requires a learning environment in which



ESD environment



- interdisciplinary or transdisciplinary learning approaches are facilitated
- learning is inclusive and accessible for all
- policies support synoptic assessment
- extra and co-curricular opportunities are provided and recognised
- learning spaces including the campus and outdoor environments are fully utilised to
- provide alternative locations to develop and express the competencies of ESD.



Examples from practice:

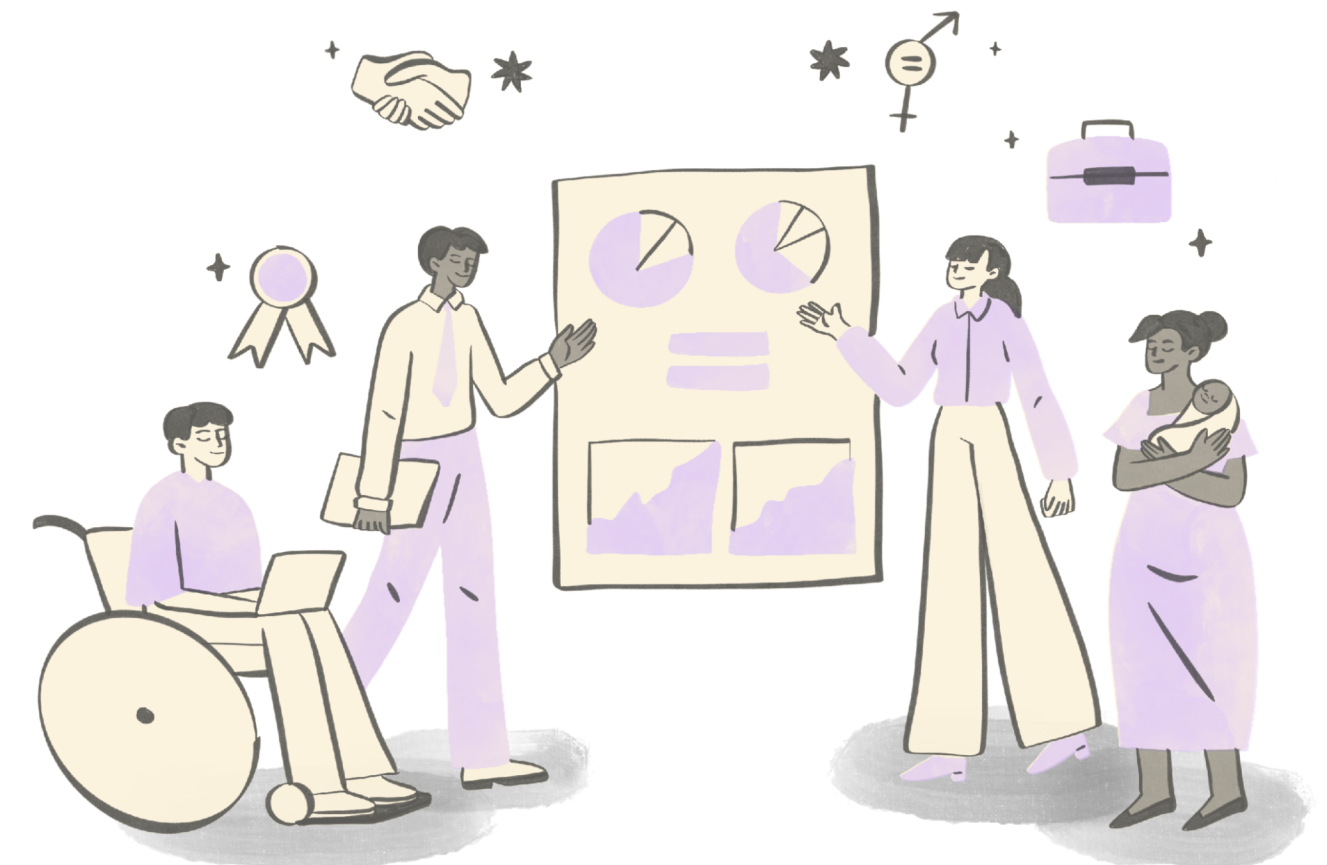
Capstone Project

Working in interdisciplinary teams, Bioscience students at the University of Leeds use enquiry-based learning to integrate, extend, critique and apply the knowledge and skills developed throughout their degree, creating outputs and outcomes which address civic and societal issues, SDGs or other grand challenges in their capstone projects.

Blended learning using ESD principles

London College of Fashion has developed a free online course using ESD principles Fashion and Sustainability: Understanding Luxury Fashion in a Changing World - as an introduction to sustainable fashion, from materials choices and business issues to creative practice. Winner of a Green Gown Award and developed in partnership with fashion group Kering, it is the first open-source online course in fashion and sustainability, reaching over 70,000 learners in 192 countries in its first three years.

It is part of the College's development of ESD across its entire course offer, including a 'Better Lives' blending learning unit delivered to all first year students.

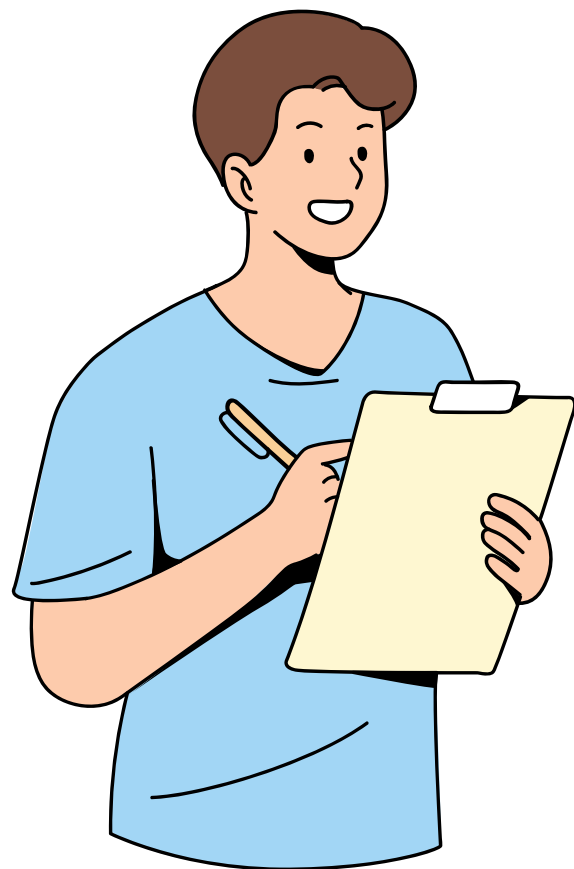




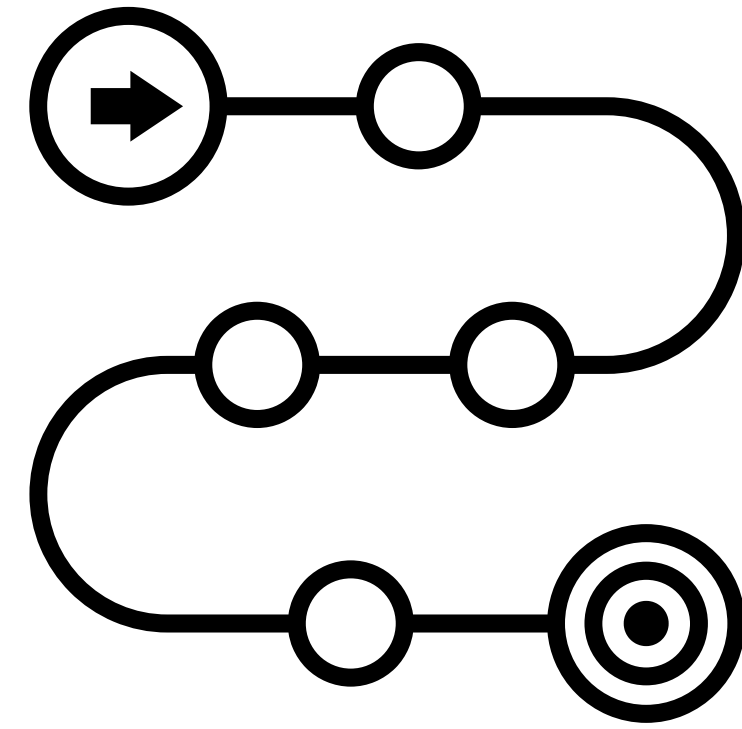
THE GLOBAL GOALS

Guidance

- Use real-world problems and think creatively about a range of teaching and assessment practices to develop sustainability competencies.
- Use group-based work within and beyond the course, subject, university or community to develop collaborative competencies through meaningful discussions with peers and other stakeholders.
- Use play-based approaches, including game-based learning and simulation, to provide an environment for students to explore alternative scenarios and practice and develop alternative ways of thinking, allowing students to take risks, experiment with new approaches and learn through failure.
- Provide opportunities for critical reflection on personal perspectives and that of others, to consider what has influenced their thinking and practice in this area.
- Use authentic artefacts, or triggers, that inspire curiosity and incorporate interactive learning approaches.

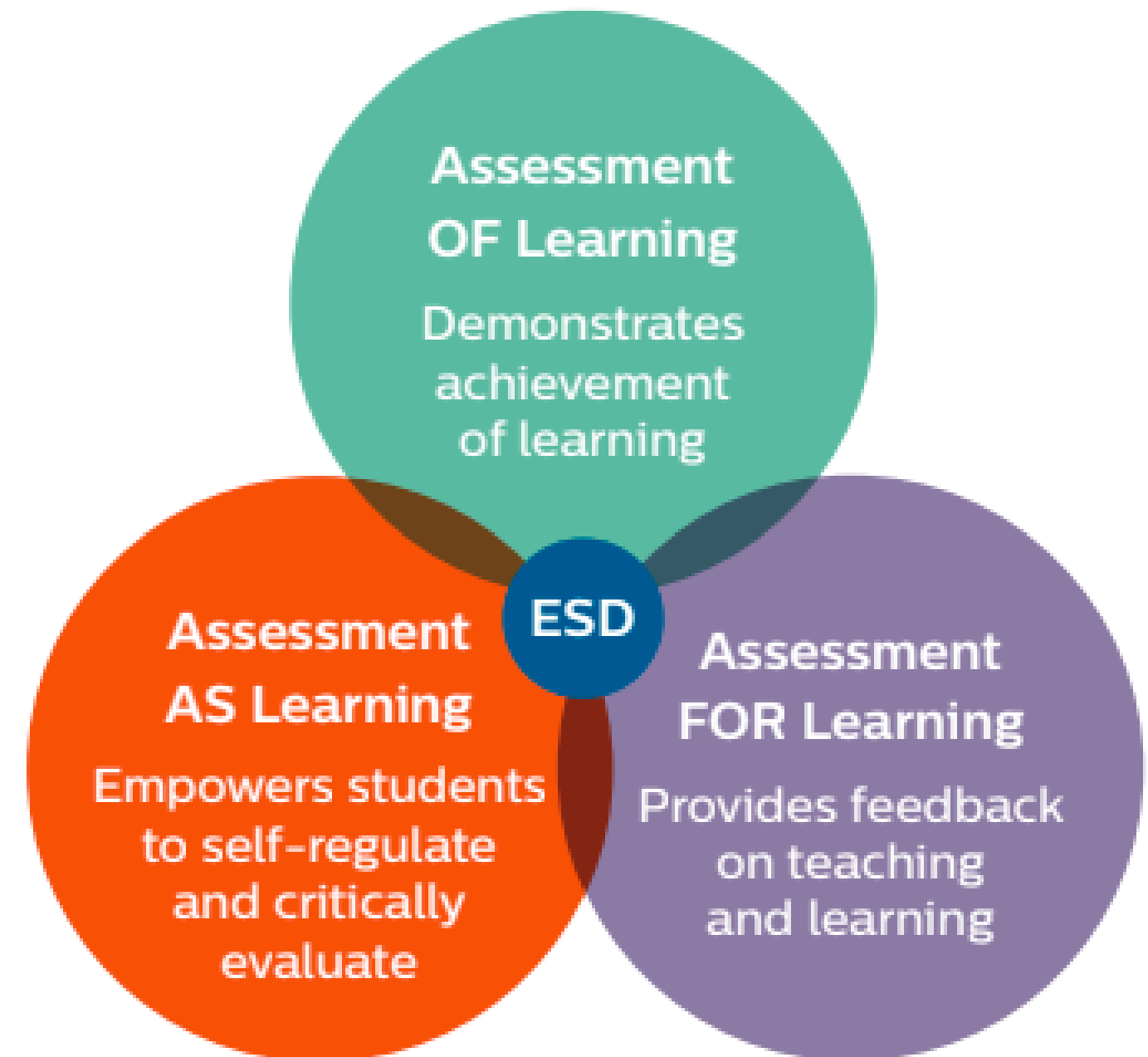


- Consider how different learning spaces and activities (including group work, online or outdoor environments) may be designed to be inclusive, accessible and meaningful for a range of identities, backgrounds and characteristics (including ethnic or national background, gender, disability, neurodiversity, socio-economic status, previous education, and religious or cultural identities) and their intersections.
- Include opportunities to understand different knowledge areas and ways of thinking from other disciplines. Objects can provide a neutral trigger for interdisciplinary and transdisciplinary practices. For example, a plastic flip-flop can bring together a diverse range of disciplines and subjects including archaeology, geology, engineering, manufacturing, logistics, marketing, social sciences, law and ethics to consider its life-cycle and promote discussion of values, globalisation and social justice and the interconnection between economic, social and environmental factors.





The developmental nature of competencies benefits from formative assessment and placing a focus on the process rather than the product of learning. Assessment criteria should be designed to prioritise how students reached a viable solution to a problem in preference to the problem solution. Authentic assessment instruments such as blogs, vlogs, websites and wikis engage students and provide a way for students to showcase their learning and share it with interested stakeholders. The conceptualisation of assessment as both 'for' and 'as' learning is useful in this respect.





Teaching Practice Examples

| Teaching practice | Definition | Illustrative examples |
|---|--|--|
| <p>Collaborative learning</p> <p>A method of learning that is often self-organised and occurs outside of the formal learning environment</p> | <p>Collaborative learning takes place offline in small groups or online via social networks utilising social media and other collaboration tools. The needs of the group are determined by the needs of the individuals that constitute it and not by an externally imposed goal. The crowdsourcing of ideas is one example of collaborative learning in which individuals request input into a project or think piece through their personal learning networks. Collaborative learning is a social process in which knowledge and meaning is co-constructed and can lead to creativity and open innovation.</p> | <p>An interdisciplinary, international project to create dementia friendly communities.</p> <p>Design projects around global challenges or SDGs to encourage learning between disciplines and year groups, and other communities outside of the institution.</p> |
| <p>Enquiry-based learning</p> <p>An approach based on self-directed enquiry or investigation in which the student is actively engaged in the process of enquiry facilitated by a teacher</p> | <p>Enquiry-based learning uses real-life scenarios and students investigate topics of relevance that foster the skills of experimental design, data collection, critical analysis and problem solving.</p> | <p>The Enhancing Fieldwork Learning project demonstrates the use of affordable, ubiquitous technologies such as iPads, digital cameras with social networks and apps to enhance learning and engagement in the field, to maximise the learning experience for all students at all stages of the fieldwork.</p> |



| Teaching practice | Definition | Illustrative examples |
|---|---|---|
| <p>Play-based or playful learning</p> <p>A range of structured or semi-structured approaches that allow students to explore approaches, scenarios, actions and consequences in a safe learning environment</p> | <p>Game-based learning</p> <p>The integration of games or game mechanics into learning experiences to increase engagement and motivation. Games which are goal oriented have strong social components and replicate real-world experience are effective learning tools.</p> <p>Gamification</p> <p>Gamification refers to the use of a pedagogical system that was developed within gaming design but which can be implemented within a non-game context.</p> <p>Serious play</p> <p>A playful mode of activity that incorporates the cognitive, social and emotional dimensions, and remains intentionally open to emergent outcome.</p> <p>Simulation</p> <p>Simulations of real-life situations through role plays, debating, mock trials and gaming encourage students to develop their thinking around ESD and can contribute to the formation of students' own attitudes and the social norms that they find acceptable. They can be used across a range of disciplinary and interdisciplinary contexts to help students develop appropriate professional behaviours.</p> | <p>Phylo is an ecosystem building game where players try and build food chains to create a stable ecosystem while disrupting their opponents.</p> <p>The Sustainable Strategies Game aims to stimulate collaborative engagement in business strategy making that promotes sustainability literacy skills, the adoption of sustainable practices, and the sustainable use of common resources.</p> <p>Ask students to adapt an existing game or create a new game that links their discipline to one or more of the UN SDGs.</p> <p>The use of the LEGO® SERIOUS PLAY® to co-create innovative solutions for clean energy incorporating technical, social and business perspectives.</p> <p>The use of a simulation game to teach disease epidemics and pandemics.</p> |
| <p>Learning through storytelling</p> <p>A process in which learning is structured around a narrative or story as a means of sense-making</p> | <p>There are a variety of approaches to learning through storytelling including:</p> <ul style="list-style-type: none"> ▪ narrative pedagogy, which encourages teachers and students to share stories and interpret experiences ▪ narrative-centred learning environments, which situate learners within a story-world (sometimes using virtual or augmented reality) in which they participate in an unfolding story. | <p>Students use digital storytelling to integrate ideas from across their studies and build their digital and professional identities.</p> |

| Teaching practice | Definition | Illustrative examples |
|--|---|---|
| <p>Problem-based learning (PBL) A style of active learning, PBL refers to learning opportunities that use real-world issues or problems to increase knowledge and understanding</p> | <p>Students work together in small groups, typically facilitated by educators. PBL is a student-centred approach and, at each step of the learning process, the students must decide what they know, or can do already, and what they need to know or learn how to do in order to continue. They then have to find that knowledge or learn a skill and incorporate this into their developing framework of understanding and competency.</p> <p>This approach is appropriate for interdisciplinary and interprofessional learning, and to support students in problem identification and envisioning and evaluating alternative outcomes. Problem-based learning is particularly suited to complex, multi-faceted issues ('wicked problems') which are not amenable to simple problem-solving. It provides an environment for creativity, risk-taking and learning through failure, as well as innovative thinking.</p> | <p>Engineering for People Design Challenge from Engineers Without Borders is a design challenge that can be integrated into undergraduate courses. It allows students to explore the ethical, environmental, social and cultural aspects of engineering design.</p> |



Problem-based learning

The problem

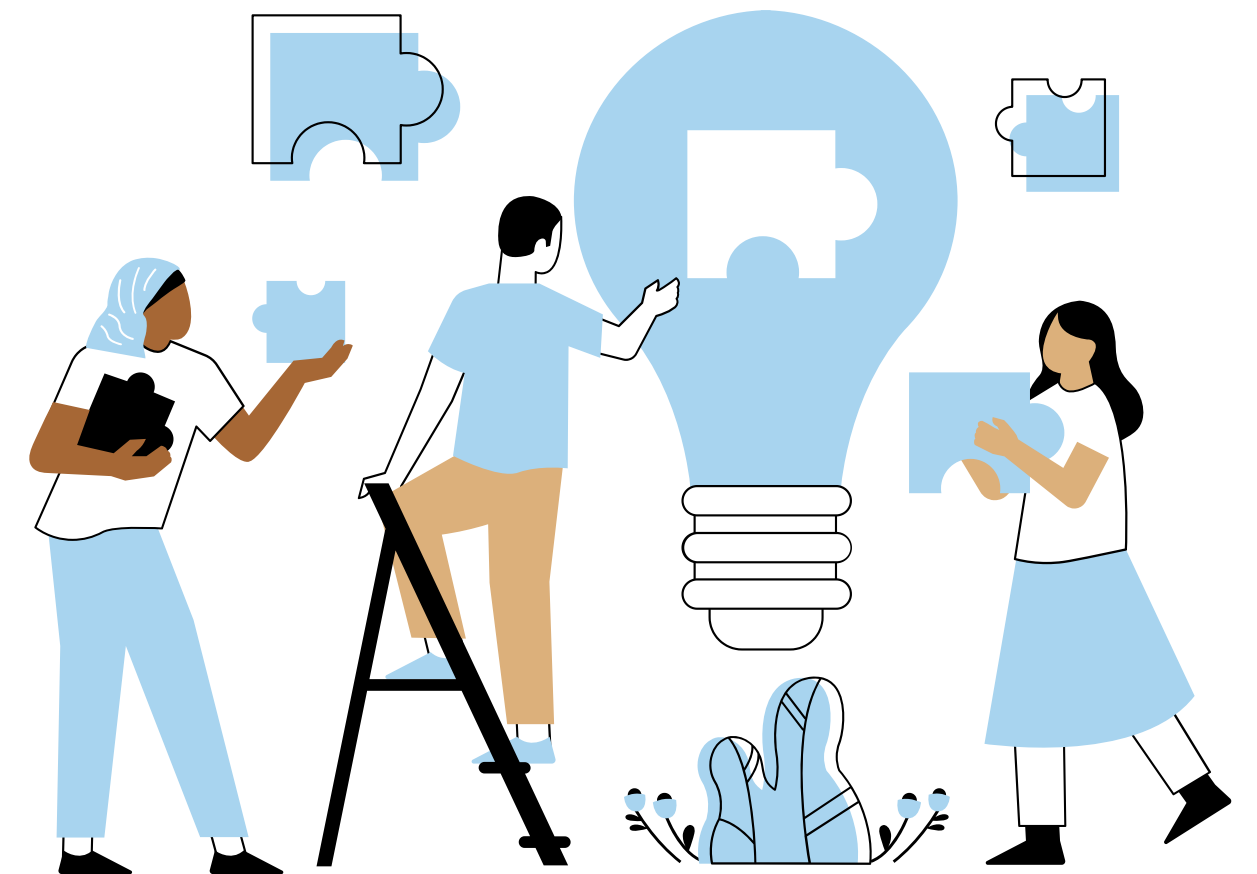
- Learning is organized around problems
- Experiential learning

The content

- Interdisciplinary learning
- Deeper understanding of the problem

The team

- Social learning
- Student Centered, self-directed



Climate Fact

Uganda has fewer water resources due to little rainfall in the region. Scientists believe that due to the rise in Earth's temperature and sudden changes in wind conditions, Uganda has become one of the countries that have significantly suffered from the effects of climate change. Only 3% of the agricultural cropland is under irrigation due to less rainfall. With most of their crops being dependent on heavy rainfall and 46% of their economy is reliant on agriculture, many people in Uganda do not have proper diets and poverty will increase exponentially in the long run.



They only have bicycles and motorcycles for transportation.



Farmers traveling for a long distance to get food.

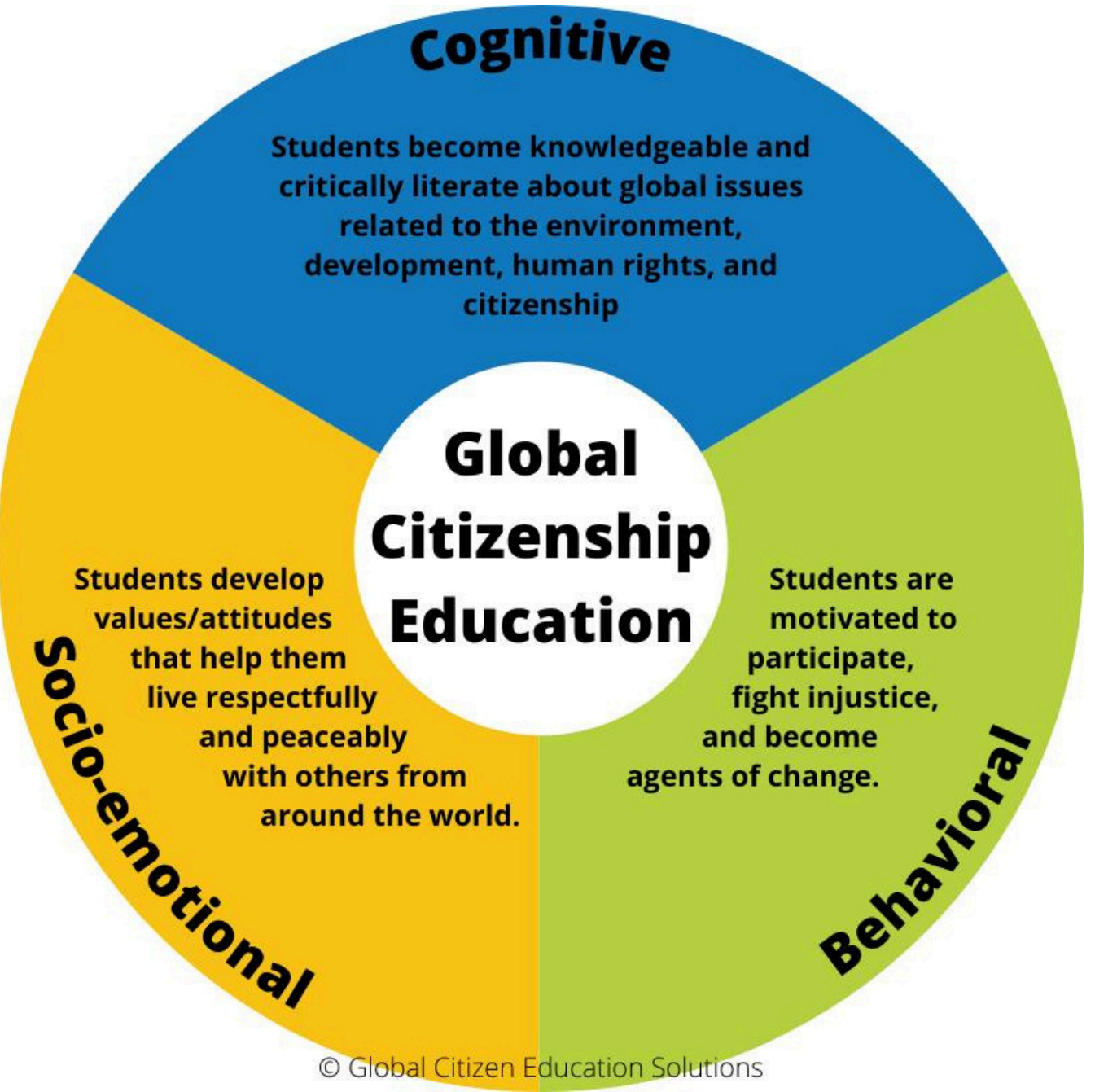
- **How do you feel carrying heavy bags?**
- **Based on your ideas, how can we help these people?**

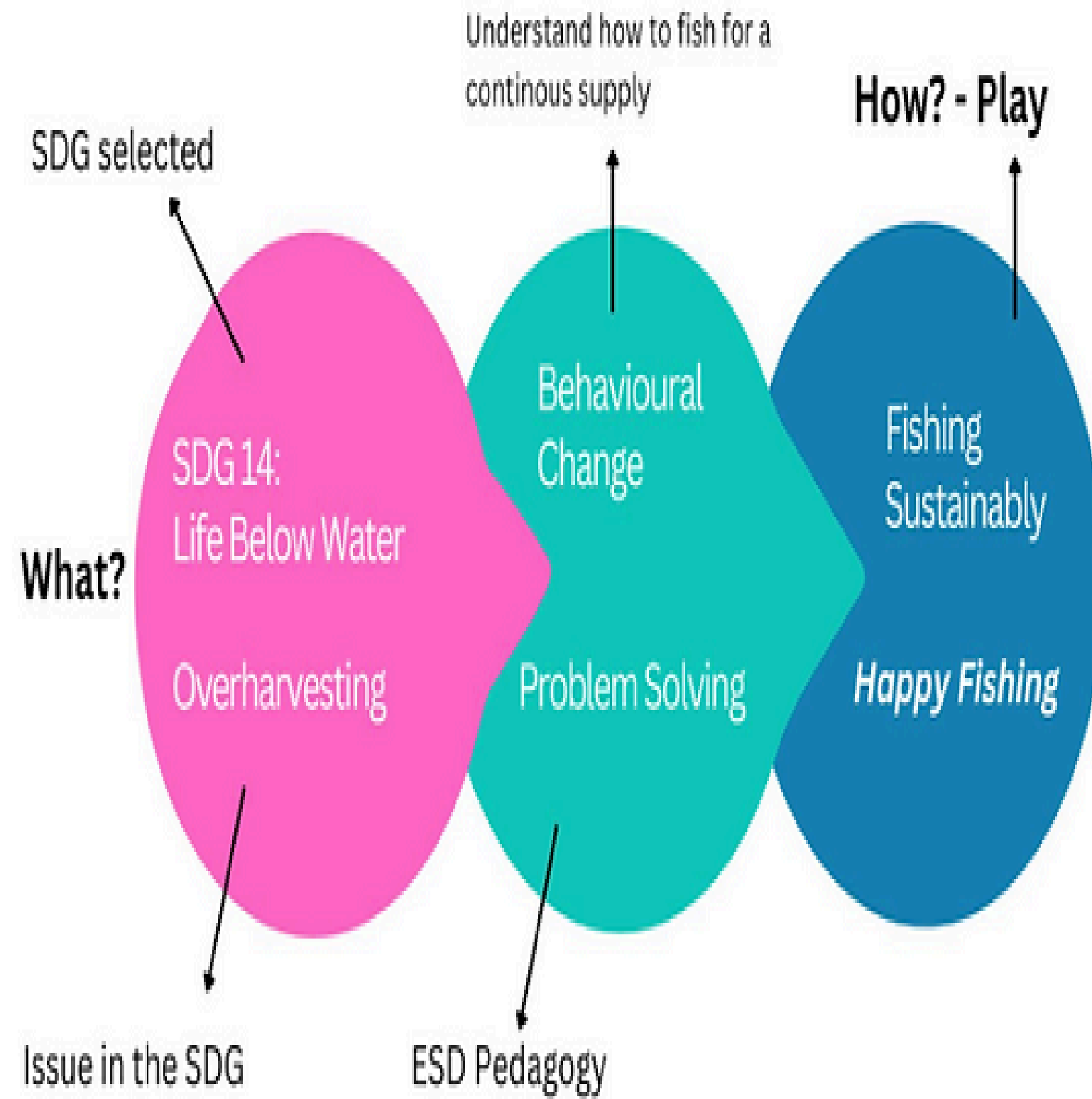
ESD Changes in



ESD Pedagogies

- Critical
- Problem Solving
- Collaborative







ESD Pedagogy
Choose 1

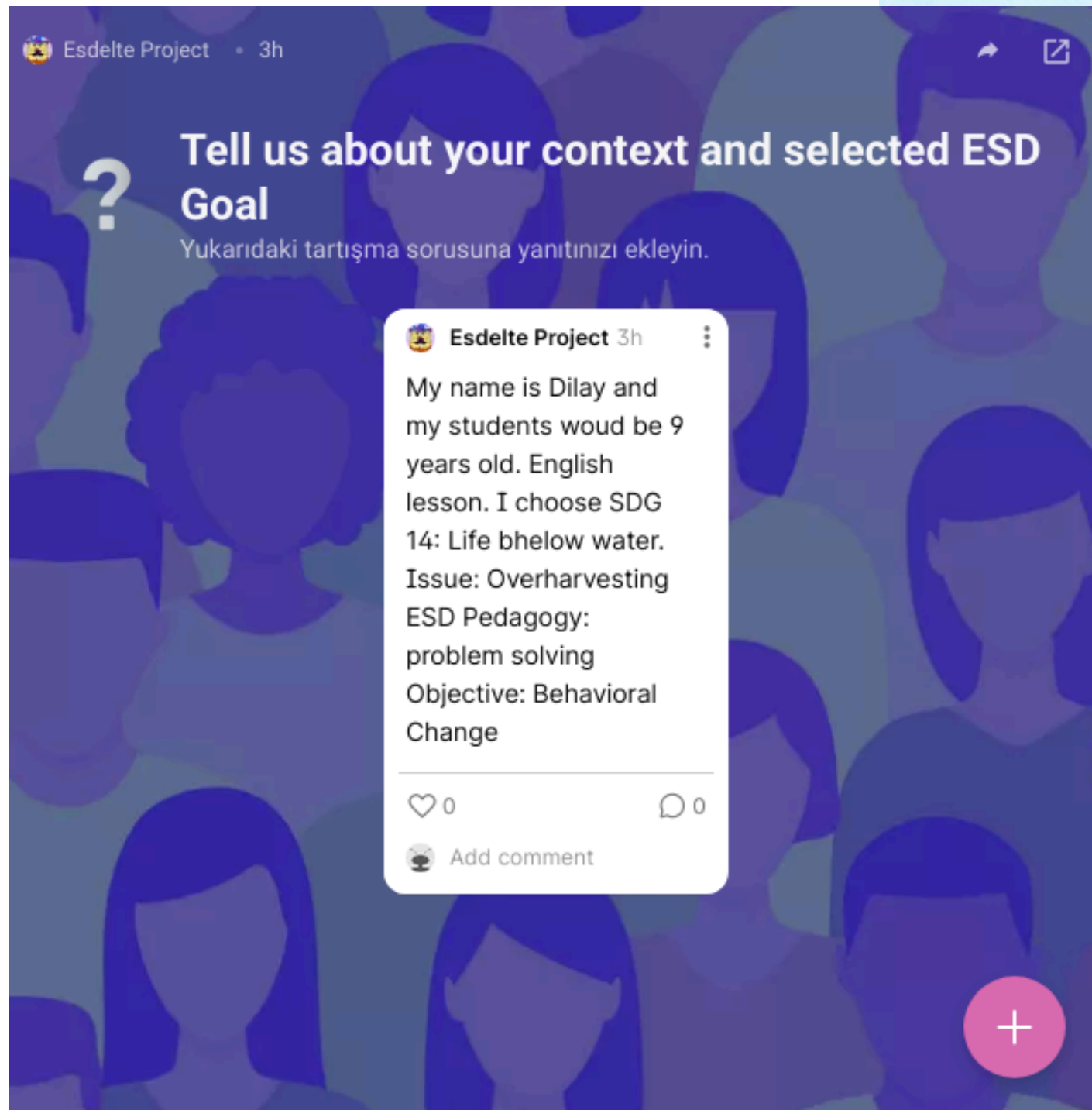
- Critical
- Problem Solving
- Collaborative

Objective (s) Changes
Choose 1

- Cognitive
- Socio-Emotional
- Behavioural

combine with ELT and teaching activities

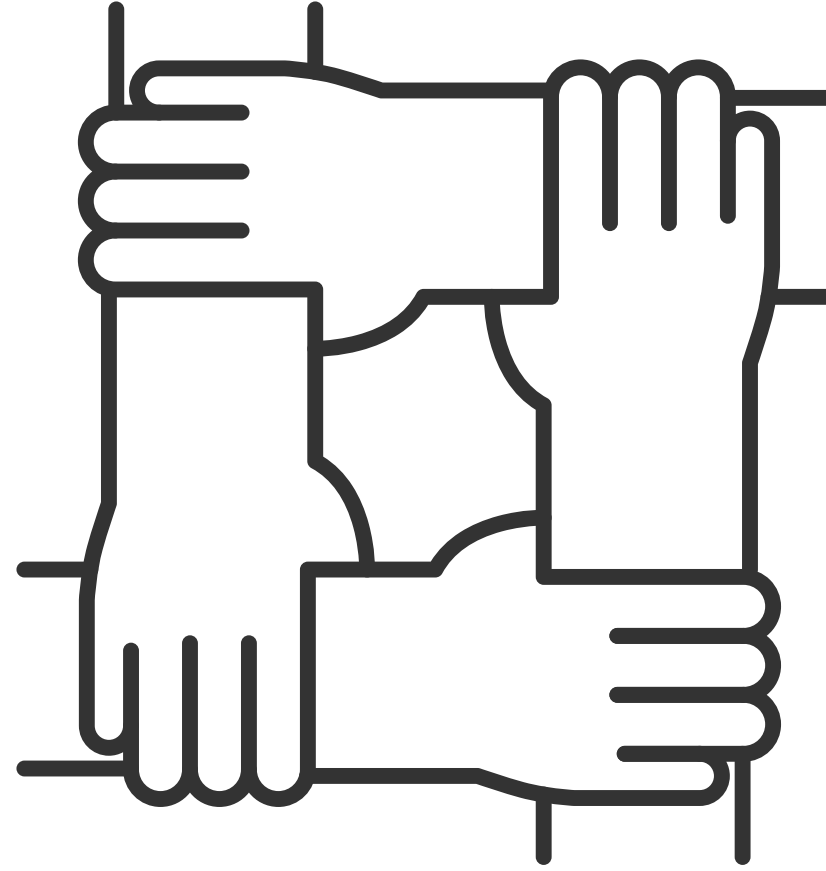
Task on Padlet



- Identify a problem
- Imagine/define your context
- Select one goal out of 17
- Choose your objectives/changes
- Choose your pedagogy
- Choose your teaching activity
- Write that down on Padlet
- You have 7 minutes
- Comment on at least 2 friends' on padlet



Our Collaboration



TARSUS
ÜNİVERSİTESİ

