



ICTeEfS



ICTeEfS Teaching Standards and Competences Framework

This activity reports on the ICTeEfS teaching standards and competences framework. A competency framework defines the knowledge, skills, and attributes needed for any target group within a certain environment and for varied purposes. The ICTeEfS framework is structured on a template that includes standards, competences, performance indicators and resources. A multi-stakeholder participatory curriculum development approach has been adopted and applied in this project. Based on the needs and knowledge assessments and the results of the stakeholders' surveys (D2.2) involving 1497 students and 1815 teachers, the ICTeEfS teaching standards and competences framework was developed. The following criteria and processes were used for developing the framework, which reflect the key concepts researched in the stakeholders' surveys.

21 st Century Learning Goals	21 st Century Critical Skills (10Cs)	Sustainability Justice	EfS Contextualised in ICTs	ICTs Contextualised in EfS

In each of these areas, both pre-service and in-service teachers should build certain competences measured by concrete indicators driven by standards and supported by suitable resources. Thus, for each area, a number of standards are identified which in turn are divided into competences and for each competence, a number of performance indicators will be formulated. Typically, there are three subgroupings of competences for each larger standard. Finally, a reflecting question posed (What supportive teaching, learning and curriculum resources are needed?) will provide motivation to identify appropriate teaching and learning resources. These constitutive parts provide the basic structure and philosophy of the ICTeEfS teaching standards and competences framework.

Standards, in general, are related to learning outcomes, curriculum, instruction and assessment in an organized and meaningful manner. They provide a map of where to go in terms of capacity building to tailor instruction to the refugee learners' needs. Thus, standards are not simply a list of important knowledge, skills, values and action competences. Rather, they constitute a vision of what curriculum, learning and teaching should include in terms of the key four areas in order to respond to refugee children identified needs. They can also guide the selection of teaching, learning materials and in general the capacity building resources.

Competences, on the other hand, tend to emphasize the application of knowledge, skills and dispositions in a more specific manner rather than standards. In this sense, the competences covered in the standards and their performance indicators should be an integral part of preservice preparation and in-service capacity building. In the ICTeEfS context, competence is the term used to describe a cluster of related knowledge, skills, and attributes as an extension of discrete statements organized along the five key areas. Performance indicators for competencies are more visible and measurable expressing on-the-job behaviours. In this way, competences are perceived as more detailed compared to standards and the latter are organized around specific learning outcomes defined as competences that are explicit, measurable and transferable. The ICTeEfS teaching standards and competences framework is aiming to be used as a guide for:

1. Conceptualizing capacity building programs for teacher educators, faculty staff and in-service teachers.
2. Training teacher educators and other involved staff to deconstruct, construct and reconstruct their courses to address the contextualization of ICT in EfS and vice versa.
3. Designing certified professional development courses and programs for in-service teachers in the field of ICTeEfS.

Disclaimer

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**TEMPLATE FOR PLACING STANDARDS, COMPETENCES, PERFORMANCE INDICATORS AND CLASSROOM RESOURCES
FOR PRE-SERVICE AND INSERVICE TEACHERS**

Curriculum Area 1: 21st Century Learning Goals (Learning to know; Learning to be; Learning to live together; Learning to do; Learning to give and share and Learning to transform oneself and society)			
STANDARDS	COMPETENCES	PERFORMANCE INDICATORS	CLASSROOM RESOURCES
1. Learning to know	1.1: Teacher identifies sustainable development issues and outlines their characteristics and dimensions.	1.1.1: Teacher define concepts related with the sustainable and unsustainable development, as well as to recognize and explain sustainable development issues.	Use various techniques as brainstorming and concept maps, as well as educational tools photos, videos, for define the concepts of sustainable and unsustainable development, as well as the issues of unsustainable development. Use their local context and observe issues of sustainable and unsustainable development and explain them through the use of the use of ICT (games, papers, charts etc) Providing web-based distributed learning activities that allow learners to brainstorm ideas, negotiate, reflect, peer critique, debate, construct knowledge and

			develop action competence
		1.1.2: Teachers describes and discuss the relations amongst natural and man-made environment (impact, dependency, interconnection etc) that leads to unsustainability.	<p>Use techniques of case study or field study on a specific issue of their local context. Analyzing the issue, amongst its causes, impacts and consequences as well as their interconnections with other issues.</p> <p>Use also simulation games or modelling to describe the relation amongst natural and man-made environment.</p> <p>Organize excursions and field trips in specific areas were the students can have first-hand experience regarding the relation amongst natural and man-made environment (e.g area where sustainable agriculture is practiced, or visits to places that shows the dominance of humans to the rest of the other living species.</p>
		1.1.3. Teacher explains the dimensions of (Un) Sustainable Development issues, (social,	Use papers, scientific data, documentaries, ICT to collect information about

		<p>cultural, economic, environmental sustainability) and recognize them in local, national and global level.</p>	<p>various (un) sustainable development issues, discuss them, explain them, determine them according to the dimensions of sustainability and identify the relations amongst them. Can be used also concept maps in various forms (charts, internet programs) for describing the dimensions and their interconnections.</p> <p>Use ICTs in ways that could enhance my learners' knowledge on local problems.</p> <p>Use ICTs as a means to integrate my learners' life experiences on tackling sustainability issues.</p> <p>Use their local context to define an (Un) sustainable development issue, classified and explained its' dimensions. The issue that analyzed can then be examined, using ICT to see in which other areas is appealed and in which ways.</p>
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			Use the social media to communicate with students from other places and countries that phase the same issue to discuss it.
	1.2: Teacher Illustrates Sustainable Development issues as issues of holistic, systemic and interdisciplinary investigation.	1.2.1: Teacher explains the concept of a system and define the factors that co-exist in a system (environmental or social).	Use diagrams, infographics, models, simulations to describe a system functions (sustainable system) and recognize the factors of a system as well as their interconnections. For example, identification of the factors of an ecosystem (interaction, interdependence, balance, systemic changes)
		1.2.2: Teacher recognizes the four systems of sustainable development (natural, social, economic and political), as well as to explain and discuss the interconnections between them.	Use games, scenarios and examples from daily life that will facilitate students to recognize and discrete the 4 systems in their characteristics and operations, as well as to explain their interdependency. For example use a scenario of forests (natural system) to explain how impacted to

			<p>other systems. Additionally, resources that can be used are concept maps, scientific data, graphs, charts, narratives from indigenous, interviews with scientists.</p>
		<p>1.2.3: Teacher interprets sustainable development issues locally and globally from different disciplines, cultures places, time.</p>	<p>Use specific examples from sustainable issues that will facilitate students to interpret them in local and global context. For example investigation of fair trade and chocolate from the seed, to cultivation, production and consumption. It can be used narratives of children from countries that working in cacao plants, videos and documentaries, recall of students' experiences with chocolate and connection their habits with the global impacts (child slaver etc). Another example is to various resources (stories, myths, records maps etc) and, choose a specific issue of sustainable development</p>

			like destruction of forest and discuss it from various disciplines, cultural views and places in time.
	1.3: Teacher describes and infers the symptoms, causes and consequences of Sustainable Development issues and proposes ways that will lead to change from unsustainable practices towards an advancing quality of life.	1.3.1: Teachers defines and describe the causes and consequences of (un) sustainable development issues in local and global context.	Select an issue from your local context and with the use of concept map define an describe the causes and consequences of the particular issue locally and globally. Alternatively, it can be used students daily habits, described and discuss in regard with their impacts to the environment and quality of life.
		1.3.2 Teacher examines natural, social, economic and political consequences of various decisions in the environment and quality of life and discuss these decisions in relation with the dominant ecological, social, economic, political circumstances at the given place and time.	Use scenario for an (un) sustainable development issue. Scenario can be followed from various resources of information (graphics, charts, data, papers, articles etc) that will help students to examine natural, social, economic and political consequences of various decisions in the environment and quality of

			<p>life. Accordingly, can be used the technique of discussion, or a combination of discussion and role to examine this issue on specific time and place and from the different views of the engaged groups of interest in the issue.</p>
		<p>1.3.3 Teacher examines alternative ways for change in sustainable practices based on identification and use of specific criteria for advancing quality of life.</p>	<p>Conduct scenario analysis, followed by determined criteria, on a specific issue like energy production, supply and usage. Use guides or examples from scenarios analysis as well as examples of criteria templates that will introduce students to develop their criteria scheme according to their scenario analysis.</p>
<p>2.Learning to be</p>	<p>2.1: Teacher acts collaboratively both within and outside of their own discipline, role, perspectives and values for Sustainability</p>	<p>2.1.1: Teacher identifies his/her own values and perspectives and the strengths and limitations of these within a given context</p>	<p>Teaching is more a moral and political act than acquiring the knowledge and skills required in the labor market. Thus, teachers can use the technique of moral dilemma and guide students to think about their values</p>

		<p>2.1.2: Teacher determines and relates sustainable development issues through multi-, inter- and trans-disciplinary contexts</p>	<p>Use various disciplines as a tool to examine a sustainable development issue from different perspectives and dimensions. For example is examined the issue of climate change use of Social Sciences and humanities to explore the social dimension, environmental studies to examine ecological dimensions, physics for analyzing the models of prediction, the finance studies to describe the economic impacts, the agricultural studies for discuss the problem from the aspect of farming and Agriculture etc</p>
		<p>2.1.3: Teacher uses intergenerational and intercultural communication for examine and value a sustainable development issue</p>	<p>Use locals, parents, older people as an educational tool to collect information about various issues of sustainability, reading practices for e.g. saving water in the time. Accordingly, students from different origins, countries</p>

			<p>and cultures can be used as an educational resource for collecting information for an issue e.g. agriculture. Students and parents from different cultures can facilitate students and teacher to confront a joint sustainable issue from different cultures.</p> <p>Also, interviews to professional can be conducted, ICT and social media can be used to communicate with people from other countries and discuss a joint sustainable development issue.</p>
	<p>2.2: Teacher determines and chooses a flexible and creative approach using real world contexts and encourages creativity within their learners for sustainability</p>	<p>2.2.1: Teacher explores, the local and global natural, social and built environment, including their own institution, as a context and source of learning, recognizing the importance of building based on their experience and others for examining and analyzing the sustainable development issues and improve their quality of life.</p>	<p>The local environment as an educational tool and place of learning. Also, students' experience is an educational tool that can facilitate learning on Sustainable Development issues. Photos, historical documents, reports, surveys can be used. Use interactive methods enabled by ICTs to discuss local environmental and</p>

			<p>social issues. Use ICTs to engage learners in studying local and global issues. Use ICTs in ways that could strengthen learners' participation in activities outside the classroom.</p>
		<p>2.2.2: Teacher generates ideas create innovations, based on real-world scenarios/problems and sustainable entrepreneurial skills development.</p>	<p>Use ICTs to in ways that could promote learners' active involvement in solving real-life problems. Use interactive methods enabled by ICTs to discuss local environmental and social issues Use of ICT to select examples of innovative ideas on SD issues. Invite in school people designers that create innovative ideas for sustainability to discuss with the students. Organize visits to various companies' that produce innovative ideas on SD issues. Collection of innovative</p>

			<p>Enviro friendly and SD technologies, materials object in school and discuss in class the design, why contribute to SD and why are innovative.</p> <p>Use scenario based on real SD issues and develop an enquiry-based project.</p>
		2.2.3: Teacher judges and choose the appropriate approaches and methods for confronting sustainable development issues.	<p>Use scenario and ask from the students to choose and justify the method that consider more appropriate to confront a SD issues.</p> <p>Use scientist and professionals to collect information for methods. Organize debate in class regarding the most appropriate methods</p>
	2.3: Teacher evaluates the relevance and reliability of assertions, sources, models and theories of sustainability and prepares to contribute positive to other people and their social and natural environment locally and globally.	2.3.1: Teacher assesses and revises on the framing of problems (sustainable and unsustainable) and not just appraise on their solutions	<p>Use papers, technology, and scientific data to analyze the SD problems.</p> <p>Use a SD issue from the students' context and organize an enquiry-based project or field study to frame it.</p>
		2.3.2 Teacher distinguishes	Use excerpts from various

		<p>between facts, assumptions and opinions, about Sustainable Development issues, including their own.</p>	<p>theories and opinions, graphics, statistics, documentaries for framing, discuss and analyze a sustainable development issue. Use a conflict issue and organize a discussion based on the use of the above resources.</p>
		<p>2.3.3 Teacher engages to diverse techniques (as problem based or inquiry based techniques) for defining and analyzing a Sustainable Development issue.</p>	<p>Develop an enquiry-based project around e.g. “Is poverty increasing or decreasing” Engage students with story-telling by people with severe diseases. Develop a problem-based project for e.g.: “Would it be more sustainable if we all lived in cities Engaging students in the application of knowledge through inquiry-based learning, problem-based learning, higher order thinking, inter/cross disciplinary learning and authentic learning</p>

<p>3.Learning to live together sustainably</p>	<p>3.1: Teacher classifies and distinguish different groups across generations, cultures, places and disciplines that can engage actively to create a more sustainable future.</p>	<p>3.1.1: Teacher identifies the values behind various groups regarding a sustainable development issue.</p>	<p>Use a scenario e.g. the animals' well-being and analyze the values that inherent in students. Then discussed how these values formulated (what is behind them). Additionally, as a resource can used the experiences of students with animals. The students are asked to response in specific questions regarding animals (have you got a bet; Why you decide to have a bet; Who takes care of the bet; What are you doing with your bet; e.tc). Their answers are analyzed and classified to values.</p>
		<p>3.1.2: Teacher defines, compares and discusses the views and practices of different groups regarding sustainable development issue.</p>	<p>Use the discussion to examine a conflict issue in the local community for example: Building a tower nearby a coast, or change the use of the land (from farming to build hotels). Perform the scenario to students discuss it and in groups students identified the different</p>

			<p>groups that involve as well as analyze their different views and practices at the particular issue. Each team presents in plenary its' results. A chart prepared where different groups presented as well as their views and practices.</p>
		<p>3.1.2. Teacher creates networks and collaborations, for active engagement to the dialogue for a sustainable development future, with diverse and different groups based on the analysis of their own views and other world views.</p>	<p>Teachers choose an issue of SDGs such as climate change. Use ICT, reports of national and international organizations, collect data from various resources about the problems causes and impacts in local and global level. They analyze and discuss the problem and identified the groups behind the problem. Then use ICT and social media to conduct with similar groups and discuss about their views, practices and actions. Organize the profile of those groups and present it in the plenary. After that with the use of chart identify similar</p>

			<p>different groups in your local and national context and design a plan how will be connected and work for confronting the issue, based on the data about its' evolution in the next few years.</p> <p>Members of the different groups should be treated equally</p> <p>Accept or reject information resources. Examine and compare information from various sources.</p>
	<p>3.2: Teacher explores alternative possibilities for the future and uses these to consider how our behaviors might need to change.</p>	<p>3.2.1: Teacher generates possible or thinkable futures and their sustainability aspects; focusing near and far, moving flexibly between short and long term goals and perspectives. According to the above, the interests of today's generations should not be at stake for those who will be born after 50 years.</p>	<p>Use problem solving to examine an issue e.g. How an overpopulated city with only 4m² of green space for each citizen, can increase green spaces to 15m² per citizen which is the recommended space of green for ensuring better quality of life? Elaborate future scenarios that present different solutions and how these might be considered from different perspectives.</p>

			<p>Different techniques and methods that can be used for problem solving include research, simulations, survey, modelling etc.</p> <p>Teacher should make learners realise that it is an act of life for them to struggle to build a just and sustainable world and that they can make the difference for a better future.</p>
		<p>3.2.2: Teacher recognizes relations and possible evolutions between past, present, near future and far future worldviews, developments and actions.</p>	<p>Identify an SD issue that is of interest to the learners and ask them to explore through literature, the media, and/ or other qualitative research methods the practices followed in the ancient times, in the recent past and nowadays. Finally ask learners to project into future practice and imagine how this practice may change. Discuss the sustainability dimensions of each possible future scenario.</p>
		<p>3.2.3: Teacher thinks creatively</p>	<p>Use Role play – integrating</p>

		<p>and critically about possible futures, sharing and debating ideas, worldviews and possible evolutions.</p>	<p>jigsaw technique. Provide a scenario explaining the current situation of an SD problem. Suggest a number of alternative solutions to the problem. Assign roles to the learners and ask them to collaborate following the jigsaw collaborative approach to examine each alternative through the different lenses of the different roles and reach a consensus on the most suitable solution.</p>
	<p>3.3: Teacher recognizes fundamentally unsustainable aspects of our society and, conveys and increases their awareness of the urgent need for change.</p>	<p>3.3.1: Teacher discusses limits and resilience of natural and human-made systems, and describe structural flaws in human-made systems that exceed limits and cause unsustainability</p>	<p>Research by students in jigsaw groups. Students divided in groups and elaborate for example the issue of using fossil fuels for our energy needs. They are asked to find out: Why is this considered to be a bad thing? What impacts is it having on people's lives/the environment? Why this happening?</p>
		<p>3.3.2: Teacher discusses and</p>	<p>Research by students in</p>

		<p>analyzes the urgent need to fundamentally change human-made systems in favor of sustainability</p>	<p>jigsaw groups. Students in groups investigating the task “How can we deal with...? e.g. Greenhouse gas emissions. They are asked to find out: How can we deal with this issue? How might we reduce its impact? What alternatives are there for this (in terms of our actions or habits)?</p>
		<p>3.3.3: Teacher identifies opportunities that contributes on improvement of the quality of life, equity, solidarity, and environmental sustainability.</p>	<p>Research by students in jigsaw groups. Students in groups investigating the task What’s so good about...? The groups receive a topic: e.g. Social Justice. They are asked to find out: What is this about? Why is it important? Is this desirable? If so, why and how can be achieved?</p>
<p>4. Learning to do</p>	<p>4.1: Teacher facilitates participatory and learner centered education and develops active citizenship</p>	<p>4.1.1: Teacher uses approaches that promotes participatory and learner centered education in learning for SD in school context.</p>	<p>Teacher uses discussion, jigsaw method, group work, etc for organizing their teaching for sustainability through various curriculum subjects. For example students asked “From where</p>

			<p>your clothes come?”. Missions of the students: a) record through their closet the country where their clothes come, b) in groups in class organize a chart with the countries of their clothes production, c) in groups search in the internet and collect information regarding; Who are working for producing their clothes, under what are the working conditions, how much they paid; There is dignity and equality in work; etc students Teacher asked from the students to synthesis their results and present it in a poster, map, report etc in the plenary.</p>
		<p>4.1.2.: Teacher creates a learning environment in class that facilitates the participatory and centered education for examining and analyzing sustainable development issues.</p>	<p>Teacher organizes his/her class in corners with various learning materials that facilitates students to work together in an interactive way, eg. Card games, flour games, corner with laptops etc</p>

		<p>4.1.3: Teacher identifies and describes how individuals and groups have taken action on SD issues at local, national and global level and designs, plans and participates to an action in their local context for a SD issue.</p>	<p>Teacher use of examples from various actions that undertaken in national level for a SD issue e.g. Youth Climate Action and asked from the students: a) to find what groups are engaged, b) what is their task, c) why they engaged; d) what means use in their action, e) how they design their action (steps) etc. The teachers use to facilitate students trailers, documentaries, interviews with the persons that led the actions etc. Then teacher asks from the student to discuss and design (organize a master plan) an action for example “Reducing waste in our school”.</p>
	<p>4.2: Teacher combines different perspectives on dilemmas, issues, tensions and conflicts and communicate the sense of urgency for change.</p>	<p>4.2.1: Teacher understands how the world might change as we project into the future and how these changes might be considered from different perspectives. He or she feels that we have to claim the common good through our active action</p>	<p>Teacher uses the technique of debate and provides a scenario explaining an existing current problem in their city. The solution will clearly affect the citizens in the future (in terms of economy and nature) and a</p>

		<p>on an individual and collective level.</p>	<p>decision needs to be taken by the city board members. Provide the two alternative solutions to the problem (e.g. road cuts through the park or road goes around the park). Ask the students to explore how either solution can affect the lives of the citizens, as well as discuss the SD dimensions of each solution. Form groups according to the solution they support and set a debate on which solution should be followed.</p>
		<p>4.2.2: Teacher examines an issue from different perspectives and values the alternative ideas through the lens of change and sustainability.</p>	<p>Teacher use simulation /role play: Provides a scenario explaining the current situation of an SD problem. Suggest a number of alternative solutions to the problem. Parallel, asked from the students to identify and discuss the different perspectives that inherent in each alternative solution. Then he/her assigns roles to the students and ask them to</p>

			<p>collaborate following the jigsaw collaborative approach to examine each alternative through the different lenses of the different roles and reach a consensus on the most suitable solution.</p>
		<p>4.2.3: Teacher analyses and evaluates conflict approaches, values and interests and propose how these might need to change.</p>	<p>Teachers asks from the students to identify a conflict issue of SD, to explain why is considered as conflict issues, to determine the values and different interests that inherent and suggest alternative solutions for change. For its investigation can used reports, position papers from diverse groups that engaged, social media for personal communication with the people and group that engaged and have different interests, scientific data, gamification, simulation games to suggest alterative solutions. Student will demonstrate awareness and appropriate</p>

			use of social media and the impact it has on their practice with clients.
	4.3: Teacher manages different decisions and actions on (un)sustainable development issues and finds connections to their local and global spheres of influence.	4.3.1: Teacher recognize the values that underpin in different decisions and actions of sustainable and (un)sustainable development issues of local, global and cultural significance.	<p>Teacher uses various techniques to enable his/her students to recognize the values that underpin in different decisions of (un)sustainable development issues such as the technique of moral dilemma e.g. for the animals well-being , the research review (with the use of questionnaire) regarding the opinions of citizens for buying cheap products etc.</p> <p>In this questionnaire teacher can include several statements and ask the students whether and to what extent agree or disagree with them e.g. a. When I buy products that I like at affordable prices, I do not care about where they come from.</p> <p>b. All people must have the opportunity to participate in decisions that can influence</p>

			them.
		4.3.2 Teacher appraises the side-effects and consequences of different decisions and actions that exists on an issue of sustainable development locally and globally.	Teacher uses photos, pictures, scenarios, reports, narratives of scientists etc for an issue of SD and help students to discuss the different actions and decisions that taken in various contexts, as well as to evaluate their side effects and consequences.
		4.3.3 Teacher analyzes current and past actions for a sustainable development issue and use them as previous experience to propose actions for a problem in diverse contexts (locally and globally).	Students elaborate the issue of water scarcity. Teacher uses photos, films, simulations, visits to desalination units or the water museums, intergenerational communication (narratives from older people), interviews with scientists to collect and analyze information about the past actions that used to confront this issue and accordingly use this knowledge and experience to design current actions. Use ICT to learn and collect

			examples of actions regarding water scarcity in other regions.
5. Learning to give and share	5.1: Teacher identifies the concept of well-being, explains the values that underpin it and adapts lifestyles for social responsibility on local and global level.	5.1.1: Teacher describes what constitutes a good life, common human rights and needs and reflects on individual, cultural or contextual differences critically	Uses of cards, photos, games, and role play, as well as students experience for identifying and describe concepts and terms related to wellbeing). Also can be used narratives and true stories of children in other cultural contexts and regions and compare their life, or life between developing and development countries within the concepts of well being, human rights, need. Student will use at least one human rights activity to discuss policy implications with field instructor and suggest possible policy changes that would address the issue.
		5.1.2: Teacher distinguishes the obstacles that individuals and societies may confront	Teacher uses scenarios, films, documentaries for e.g. the un(sustainable) models of

		<p>(economic inequality, unequal power relations, violence etc) in affirming their rights to diversity and wellbeing.</p>	<p>production and consumption to enable students to determine the obstacles and inequalities that inherent amongst countries and people.</p>
		<p>5.1.3: Teacher evaluates different courses of action regarding social responsibility and proposes ways in their daily life that contributes to social offer, giving and caring of others, starting from his/her local community.</p>	<p>Teacher use the technique of writing an I-report in 60 minutes. Subject: How do I accept personal responsibility and accountability towards others and how do I act transparently by reporting to others in appropriate ways.</p> <p>Task one:</p> <ul style="list-style-type: none"> • Describe daily life from this perspective • Give as many examples as possible <p>Task two:</p> <ul style="list-style-type: none"> • Ask two of your peers to reflect on your report and add their reflection to your

			<p>report.</p> <p>Task three:</p> <ul style="list-style-type: none"> reflect your report: describe what you can change in order to become (even) more responsible and accountable.
	<p>5.2: Teacher motivates, influences and challenges others to take actions in a proactive, considered and systematic manner for a sustainable future and common well-being.</p>	<p>5.2.1: Teacher understands the central importance of <i>agency</i> and prepares student and others to enhance their sense of agency.</p>	<p>Teacher use the school context and local community as places to organize activities that will help students to understand the term of agency through their participation e.g. voluntarism participation to clean a park, participate in groups for greening my school, etc.</p> <p>Students should read agency policy on the following areas: 1) conflicts of interest, 2) boundaries, 3) dual relationships, 4) sexual harassment, and 5) confidentiality. Student</p>

			<p>should discuss how to address challenges that may arise in these areas.</p> <p>Student will demonstrate appropriate documentation within the field agency</p> <p>Student will discuss with agency personnel what factors have been discussed to determine if agency will or will not use technology to deliver services and, if available, will observe the use of technology to deliver services.</p> <p>Student and will read three scholarly articles related to service delivery within the service population discuss application in supervision.</p> <p>Student will provide information from a systematic review on intervention or program effectiveness related to services provided by the agency and discuss implications.</p> <p>Student will perform an appropriate number of</p>
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			<p>assessments, per semester, based on agency capacity. (Field instructor should specify nature of assessment activities in end-of-semester narrative.) Student will develop a treatment plan and case conceptualization for each assessment in above activity.</p>
		<p>5.2.2: Teacher applies a variety of approaches and methods which stimulate learning in a collaborative and collegiate way for a sustainable future and common well-being.</p>	<p>Teacher uses various student-centered pedagogies that help students learn, reflect on their learning in a collaborative and collegiate way for a sustainable future and common well-being. Examples:</p> <p>Group-based co-operative project work connects students within and across borders. For example, using digital education and e-learning students can be connected and discuss with other peers from other countries an issue of joint interest like climate action.</p>

			<p>to work in e-classrooms During the discussions teacher can uses a thought-provoking video clip, image or text and students present supporting evidence, comment and express their differing points of view.</p> <p>Service learning is another tool that can help students to develop multiple global skills through real-world experience. This requires learners to participate in organised activities that are based on what has been learnt in the classroom and that benefit their communities. For example participate in community campaign “Every leftover can have be used”. After the activities, learners are required to reflect critically on their service experience to gain further understanding of course content, and enhance their sense of role in society with regard to civic, social, economic and political issues</p>
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			<p>The Story Circle approach: The students, in groups of 5-6, take turns sharing a 3-minute story from their own experience based on specific issue such as “Tell us about your first experience when they told you that in school offered meals for students in need ” After all students in the group have shared their personal stories, students then take turns briefly sharing the most memorable point from each story in a “flash back” activity.</p> <p>Student will attend professional training opportunities outside of course work to further enhance their learning.</p>
		<p>5.2.3: Teacher uses the reflective learning cycle (planning, acting, reflecting, adjusting or the Anticipation-Action-Reflection cycle) for enabling students to design and participate to future</p>	<p>Teacher uses a student led project designed to give the students time to develop their ideas into practical projects for resolving an issue (or adding new value) in their</p>

		sustainable actions.	<p>locality. Students follow the IVAC steps:</p> <p>Investigation: look at the what, where, when, how, who questions – and most importantly, why?</p> <p>Vision: How might this situation be improved/solved/resolved?</p> <p>Action: Engage with others people/organisations as necessary to put your ideas into action</p> <p>Change: Reflect on what has been achieved. What has actually changed? This can be physical change or a change within the students and/or others.</p>
	5.3: Teachers constructs positive interactions with people of different national, ethnic, religious, social or cultural backgrounds or gender for a sustainable future	5.3.1: Teacher uses their imagination to “put themselves in other peoples’ shoes”	Teacher uses photos, stories and narratives from people in a range of different situations (culture, religion etc). Students discuss how they think each of the characters are feeling and why they

		<p>5.3.2 Teacher recognises needs and connections within and beyond people of different national, ethnic, religious, social or cultural backgrounds and apply mechanisms and sources of resilience for building a sustainable future.</p>	<p>think that.</p> <p>Teachers' uses videos, photos, data and narratives of people from different parts of the world and find the needs and connections amongst people from different parts on a global issue such as climate change. Teacher supports students to perform this needs and connections via concept maps</p> <p>Or teacher organize a case study about how climate change can increase the risk of disasters in vulnerable areas and propose ways for mitigation.</p> <p>Or</p> <p>Use a role play about different people from around the world who are victims of injustice.</p> <p>Additional tools for uploading pictures and videos and documents could help reduce the lack of information on the living and nature conditions of my</p>
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			discussing partner in other parts of the world.
		5.3.3. Teacher creates educational opportunities in real life situations that engenders trust, empowers others and builds positive relationships.	Teacher engages students in efforts e.g. to connect leftover with people in need. or Teacher performs role play games that explore e.g. inclusion and identity based on gender roles. or Teacher organizes a discussion amongst students and people that experienced violence based on their gender, religious or cultural identity.
6. Learning to transform oneself and society	6.1: Teacher accepts personal responsibility and accountability towards others and acts transparently by reporting to others in appropriate ways.	6.1.1: Teacher identifies and describe the characteristics change.	Teacher uses small scenarios, or examples for discussing and identify with his/her students the characteristics of the key terms for change Transparency, Responsibility and accountability, Reflective practice, Action research, Lifelong learning, Target setting. He can use concept maps, cards and

			games for define them and also ask them from their experience an example that describes these key-terms.
		6.1.2: Teachers describes and analyses actions and decisions and reflects upon them to transform them to more sustainable patterns of life.	Teachers use simulation games, debates, role play, value clarification approach and discuss the decisions and actions that taken for a particular SD issue. Then following the IVAC steps are asked to improve the decisions and actions taken to more sustainable patterns of life for e.g. the scenario of diamond island.
		6.1.3: Teachers operates responsibly even when faced with unforeseen events, keeping in mind the precautionary principle and design actions that lead to social transformation for sustainable development	Teachers uses simulation games, concept maps, project based learning to help students to recognize a range of rights, roles and responsibilities and related systems by which people can be held to account starting from their school and community e.g. Envisioning a fair and just community.
	6.2: Teacher describes and analyses	6.2.1: Teacher determines the diverse groups that participate to	Teacher uses real-life (un)sustainable issues,

	<p>ideologies and systems that leads to decisions and policies regarding sustainable development, assess the values that underpin them and influences changes for social transformation.</p>	<p>the decision making and implementation of Sustainable development policy and discriminates to its' characteristics and ideologies.</p>	<p>scenarios, debates and asks students to identify the diverse groups that engaged to the decision making of a specific sustainable development policy. Then analyze their characteristics and ideologies and performs them with role play or a debate e.g. Change an agriculture land to touristic.</p>
		<p>6.2.2: Teacher identifies and analyses the structures of power and dominance in the society.</p>	<p>The teacher should bring the school to society and society at school. Teacher uses the school context, scenarios or structures of public services, to help students identify and analyse the structures of power and dominance in the society such as: types of structures a) in school level: Director, Teachers board, parents association, students council, b) in community local authorities, c) in countries level: Ministries, Public Services, Professional Associations, NGOs, Private Sectors, Parliament. Then</p>

			<p>use ICT to collect information about the role of each one of them, or organize a discussion I school with representative of each party. Students discuss with them about their role, their responsibilities, their duties and limitations, how they received a decision about an issue for e.g that impacted to students' school life, to communities' life, to civil society's life.</p> <p>Or organize a visit to a ministry or local authorities and have a round table discussion with the institutions key persons.</p>
		<p>6.2.3: Teacher analyzes the structures and mechanisms that prevent us to live sustainably and discusses and proposes ideas to transform those across sustainability at the present and for the future.</p>	<p>Teacher use a real life scenario to help students structures and mechanisms that prevent us to live sustainably. For e.g. present to the students the decision of a local Authority to extend the roads cutting the trees that planted 40 years before. The students in groups and</p>

			<p>with the use of a chart or PPT, or posters identify the interested groups, their characteristics, the alliances within them base on common interests, the value that is given to various parties based on their dominance and power. Each group presents its results to the plenary. Then students with the puzzle method and using infographics or ideogram are asked to intervene to the strategic plan that decides by the public authority and think how they can improve/change it for being more sustainable.</p>
	<p>6.3: Teacher uses the prior knowledge and experiences on decisions and actions for building a sustainable future and shares and debates ideas, worldviews and possible evolutions for sustainable changes.</p>	<p>6.3.1: Teachers recognizes relations and possible evolutions between past, present, near future and far future worldviews, developments and actions.</p>	<p>Teacher uses intergenerational communication, photos, historical archives, stuff, museums or other places for interest to examine for e.g. the evolution of agriculture from the past to present. Also, use ICT to collect information about the</p>

			<p>agriculture in different regions. With the use of the ideograms or infographic present the relations, differences and similarities from the past to present within their country and in other regions. Also, teacher can use debate and ask for the students to propose ways and ideas on how the lessons from the past can be used as a learning experience for the future to design sustainable actions. Role play, modelling and simulation also can be used.</p>
		<p>6.3.2 Teachers identify and analyses approaches and techniques that contribute to the debate, ideas, suggestions world views on possible evolutions for sustainable development.</p>	<p>Teacher asked to respond on questions regarding sustainable issues for e.g. Why climate change increase the social injustice. Then they plan how they will teach and which approaches they will use as more appropriate it and for what purpose.</p>
		<p>6.3.3 Teacher help students to design future scenarios based on different world views and</p>	<p>Teacher uses the reflective learning cycle (planning, acting, reflecting, adjusting</p>

		evaluate whether they are sustainable.	or the Anticipation-Action-Reflection cycle) to enable students to design future scenarios for e.g. how my city can be a sustainable city;
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Curriculum Area 2: 21st Century 10Cs (Communication, Collaboration, Creativity & Innovation, Critical thinking, Connectivity, Critical reflection, Critical consciousness, Constructing knowledge, Cross-cultural competence and Co-responsibility)			
STANDARDS	COMPETENCES	PERFORMANCE INDICATORS	CLASSROOM RESOURCES
1. Communication skills	1.1: Engage students in dialogical conversations and discussions using ICT communication tools.	1.1.1: Get engaged in meaningful discussions by posing and responding to questions as teachers believe that learners have a voice and should be heard	Teachers believe that they can get more from the learners than they can teach them.
		The course materials, activities and assignments provide students many opportunities to Both students communicate digitally, share resources online, connect and collaborate with others through virtual environments and with online tools.	Interacting through digital technologies To interact through a variety of digital technologies and to understand appropriate digital communication means for a given context.
		1.1.3: Interact in social networks, and take part in online communities.	

	1.2: Develop communication processes in building trust among team members	1.2.1: The course materials, activities and assignments provide students many opportunities to build communication processes that make it safe for people to say what is on their minds.	Student will demonstrate timeliness in attendance and responsible communication regarding field schedule.
		1.2.2: Feel comfortable and successful in working across differences in race, ethnicity, gender, culture and age	
	1.3: Use communication for a range of purposes (e.g. to inform, instruct, motivate, persuade) enabled by various communication modes	1.3.1: Use communication to inform, instruct, motivate and persuade on multiple occasions using both verbal and nonverbal communication.	
		1.3.2 Communicates effectively with others in diverse environments using both verbal and nonverbal communication	
		1.3.3 Tailor communication strategies to effectively express, listen, and adapt to others to establish relationships to further civic action.	
	2. Collaboration skills	2.1: Work effectively and respectfully with diverse members of a team	2.1.1: The course materials, activities and assignments provide students many

	<i>Understanding and evaluating the reasoning behind positions</i>	opportunities to explore new ideas collaboratively, shares with, and support team members' efforts, acknowledge and respect diverse viewpoints.	
		2.1.2: The course materials, activities and assignments provide students many opportunities to address the complexities of the issues to be discussed, clarify key concepts when necessary.	
		2.1.3: Develop a line of reasoning as well as the implications and consequences of the position taken.	
	2.2: Exercise flexibility and willingness to be helpful in making necessary compromises to accomplish a common goal.	2.2.1: The course materials, activities and assignments provide students many opportunities to listen to ideas and demonstrate compromise allowing the group to meet its full potential.	
		2.2.2: The course materials, activities and assignments provide students many opportunities to democratically share their responsibilities.	
		2.2.3: Demonstrate support for	

		one another as they accomplish their goals.	
	2.3: Share power and responsibility for collaborative work, and value the individual contributions made by each team member. Envisioning a more sustainable future for the community through collaborative action. <i>Course activities engage students in dialogical conversations and discussions. Connecting with others by the use of ICTs for collaborative purposes</i>	2.3.1: The course materials, activities and assignments provide students many opportunities to collaboratively discuss and describe a shared vision for the sustainability of their community.	
		2.3.2 group members demonstrate personal accountability for the tasks they have been assigned.	
		Course activities and other materials are using digital communication tools (e.g. email, IM, chat, discussion forums, whiteboard, Google applications/docs, e-portfolio). These tools do not only serve to communicate digitally, but also to share resources online, connect and collaborate with others through virtual environments, interact in social networks, and take part in online communities.	To use digital tools and technologies for collaborative processes, and for co-construction and co-creation of resources and knowledge. To integrate interactive communication tools like Skype or I-chat in already existing platforms for EFS offers all actors in the special field the possibility to have open discussions without the need of travelling to meetings all the time. But his communication must base on

			personal involvement and on already existing networks and communities, it should not replace one to one meetings and personal contacts in the different countries. Using only the possibility to talk to each other cannot replace all travelling, because personal impacts of the real living situation, of the nature spots are one the basics of EFS.
3. Creativity and innovation skills	3.1: Exhibiting curiosity and openness to new ideas and diverse perspectives as well elaborating ideas through divergent and convergent thinking.	3.1.1: Seek new experiences and ideas.	Acknowledging learners' thoughts, experiences, ideologies and biases and encouraging them to get involved in dialogue and meaning-making, especially through student-led online discussions Develop a self-learning approach to technology; be prepared to adapt to new
		3.1.2: Bringing facts and data from various sources and then applying logic and knowledge (deductive thinking) to solve problems.	Identifying the learning domains and complex problems or cases to be explored within the identified learning domains;

		3.1.3: Coming up with a solution (thinking outwards instead of inward). of generating multiple solutions for a given problem	
	3.2: <i>Working creatively with others.</i>	3.2.1: Exchange ideas and feedback, make connections and co-construct ideas to generate new and unique insights.	
		3.2.2: Augment students' creativity, ingenuity, and self-awareness.	
	3.3: Stepping-out from the mass, taking risks as well as turn negatives into positives, barriers into drivers.	3.3.1: Take risks, view failure as an opportunity to learn.	
4. Critical thinking skills	4.1: Ask critical questions targeted to sustainability issues.	4.1.1: Ask appropriate, specific and reasonable questions to understand and explore a chosen sustainability issue.	
		4.1.2: Critically assess the capacities and limits of their own knowledge and skills and their consequences.	
		4.1.3: Understand the logical connections between ideas consistently selects a problem	

		solving strategy or develops a plan to use.	
	4.2: Applying critical reasoning by understanding personal strengths and weaknesses.	4.2.1: Think clearly and rationally about what to do or what to accept as valid knowledge.	
		4.2.2: Identify the situation or problem as well as the factors that may influence it.	
		4.2.3: Thoroughly evaluates sources' points of view and detects bias, when present; clearly analyzes how sources address conflicting viewpoints.	
	4.3: Constructing critical argumentation .	4.3.1: Ability to inquiry question in a very articulate, convincing way.	
		4.3.2: Organize reasons and supported evidence from accurate, correct, credible, and trustworthy sources	Student will identify an evidence-based practice used within organization and discuss its effectiveness during supervision.
		4.3.3: Identify a variety of unique solutions to the problem, often by using both convergent and divergent thinking.	
5. Connectivity skills	5.1: <i>Connecting the dots and disciplines to real-life.</i>	5.1.1: Associate one idea with another, to find the "big picture", or salient feature, in a mass of	

		data.	
		5.1.2: Make meaningful connections with the outside world.	Teachers believe that learners need skills that go far beyond what they have learned at school. Adjust educational content so that it becomes relevant to my learners' life outside the school.
		5.1.3: Use various social networks such as Facebook, Twitter, Pinterest, and Instagram to connect.	
	5.2: <i>Connecting concepts over time, place, space and spheres of learning</i>	5.2.1: Sharing of personal experiences, values, beliefs, and course content.	
		5.2.2: Practice through participation in peer-led learning, assessment, and feedback (collective intelligence).	.
		5.2.3: Experience a “learning environment” regardless of time, place and space, extended to various spheres of learning.	Teachers believe that learners love learning but are oppressed with sterile knowledge
	5.3: <i>Connecting learning and civic engagement.</i>	5.3.1: Link learning and civic engagement	

		5.3.2: Demonstrating the power of critical civic literacy practices that help students read	
		5.3.3: Read the “word” and learn the “world.”	
6. Critical reflection skills	6.1: <i>Promoting self-regulation and critical reflection</i>	6.1.1: Setting and achieving goals.	
		6.1.2: Time management, planning and self-monitoring.	Use reflection and self-regulation to manage personal values and maintain professionalism in practice situations.
		6.1.3: self-evaluating and taking control of their own learning and question their own assumptions and beliefs.	Teachers believe that learners are able to co-create their own learning.
	6.2: <i>Integrate critique in the reflective process</i>	6.2.1: demonstrate a high degree of students’ engagement in questioning or evaluating their prior perceptions, beliefs, habits, theories, perspectives and actions	
		6.2.2: Critique in questioning, assessing, applying, analyzing facts.	
		6.2.3: Discussing key course concepts and theories in course activities, and/or assignments.	

	6.3: Questioning things, considering alternatives for action.	6.3.1: Demonstrate what we could differently from what we have done.	
		6.3.2: Plans for further action such as improving skills and/or become leaders for change.	Teachers believe that learners can change the world: They are not simply the future. They are the present.
7. Critical consciousness skills	7.1: Understanding the concept of power and asymmetry	7.1.1: Understand: 1) the causes, the conditions, and the consequences of inequality in human societies and how it affects sustainability justice.	
		7.1.2: The unequal distribution of human and natural resources	Resources should be distributed so that everyone can live a decent life.
		7.1.3: Why should we must care for others and the environment.	
	7.2: Consciousness raising through critically reflecting on personal experiences, power and asymmetry.	7.2.1: Realize the roles they play to sustainability injustices and believe that the teacher should fight injustice even at the risk of losing his/her job.	e.g. when they are not expressing themselves and taking any action: When I see injustice and do nothing about it, I feel guilty.
		7.2.2: Belief in one's ability to have an impact in a given situation, or the responsibility to do so.	

		7.2.3: Challenging to deconstruct previous perspectives, or world views, specifically as they relate to inequality, social justice, power, and privilege	
	7.3: <i>Engage in sustainability justice.</i>	7.3.1: Act in response to sustainability injustices.	It is an act of life for me to struggle to build a just and sustainable world.
		7.3.2: involvement in social action, community development, and other forms of civic engagement.	
8. Constructing knowledge skills	8.1: <i>Making authentic constructions</i>	8.1.1: Engage in real-world issues.	
		8.1.2: Examine a task from different perspectives, using a variety of resources.	Identify and prioritize likely sources of information. Formulate a research strategy. Identify task-appropriate starting points such as the Library website or resource guides, and determine which selections are most relevant. Locate desired information within individual sources. Determine relevance to task and objective. Present the information

			accurately and effectively in a way that addresses the task or accomplishes the stated purpose.
		8.1.3: Construct knowledge through collaboration and by applying an interdisciplinary approach.	
	8.2: Constructing knowledge through reflection.	8.2.1: Constructing knowledge by reflecting on previous experiences.	Teachers believe that learners are not empty containers waiting to be filled with knowledge.
		8.2.2: Become self-- regulatory, self--mediated, and self--reflective.	
		8.2.3: learning environment that thoroughly supports case/problem/project--based learning.	
	8.3: <i>Constructing knowledge through inquiry-based learning.</i>	8.3.1: Articulate inquiry--based problem solving process.	

9. Cross-cultural skills	9.1: Respects cultural differences and works effectively with people from a range of social and cultural backgrounds.	9.1.1: Respects, interacts, and works positively with individuals from other social and cultural groups.	All groups should feel the need and the right to express their peculiarity in the public space. We must respect the cultural heritage of others as well as ours.
	9.2: Know when it is appropriate to listen and when to speak.	9.2.1: Understanding of when it is appropriate to speak and when it is appropriate to listen is demonstrated in a variety of settings.	
		9.2.2: Seek opportunities to learn from diverse perspectives.	
		9.2.3: Respond open-mindedly to different ideas and values while developing a common understanding.	
	9.3: Leverage social and cultural differences to create new ideas and increase both innovation and quality of work.	9.3.1: Demonstrates a high level of cultural and social understanding and respect for the uniqueness of others.	The public expression of the identity of the culturally different should be limited.
		9.3.2: Encourage discussions to develop new ideas through active listening.	
		9.3.3: Create opportunities increasing innovation and quality of work.	

10. Co-responsibility skills	10.1: <i>Developing self-awareness, social responsibility and accountability.</i>	10.1.1: Encourage awareness of and control over students' own thoughts, choices and feelings.	
		10.1.2: Hold oneself accountable for the course tasks to be accomplished.	
		10.1.3: Raising students' awareness of and concern for the impact of one's behavior upon others.	
	10.2: <i>Thinking before acting. Reflective insights of one's own and others actions</i>	10.2.1: Able to think of the consequences of their actions before doing something.	
		10.2.2: Feel responsible about how others' actions will affect them and society.	
		10.2.3: Reflective insights or analysis about the aims and accomplishments of one's actions.	
	10.3: <i>Connecting civic knowledge and responsibility.</i>	10.3.1: Provide opportunities for one's own civic participation.	
		10.3.2: Exhibit caring and respect for others.	
		10.3.3: Recognize and evaluate different perspectives with greater depth and clarity.	

Curriculum Area 3: Sustainability Justice (Environmental justice, Social justice, Economic justice & Cultural justice)			
STANDARDS	COMPETENCES	PERFORMANCE INDICATORS	CLASSROOM RESOURCES
1. Environmental justice	1.1: Apply their understanding of environmental justice to advocate for human rights at the individual and system levels.	1.1.1: Instructors can incorporate human rights and environmental justice knowledge and skills in their courses.	<p>Make ethical decisions by applying the standards of the Environmental Justice Code of Ethics.</p> <p>Students will both collect and read materials related to environmental justice.</p> <p>Student is required to complete 16 hours of human rights activities by the end of their field experience.</p> <p>Student will identify an evidence-based social injustices within their communities and discuss their ethical and environmental impacts.</p>
		<p>1.1.2: Express a willingness to get involved and take action to advocate for human rights and environmental justice and</p> <ul style="list-style-type: none"> - Engage in practices that advance environmental justice. - Engage in collective action to investigate and address 	<p>“The Cloud Factory” lesson demonstrates the power every person has to create positive change in the world. It tells the story of a Latina teenager who spearheaded a movement to challenge environmental injustice in</p>

		environmental justice issues.	<p>her community.</p> <p>The video begins with an 18-year-old high school student, Marisol Becerra, driving past large smokestacks in her Chicago neighborhood that she affectionately referred to as “the Cloud Factory.” Years later, as Marisol watched her younger sister suffer from asthma, she realized that the smokestacks came from the coal-burning power plant in her neighborhood. The young student began mobilizing her friends and community to work together to demand that the Cloud Factory close down.</p> <p>This lesson prompts students to think about environmental injustice, the impacts of climate change on communities, and how youth can become leaders in the struggle for environmental and climate justice. Marisol’s story is proof that no matter your age, you can always</p>
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		<p>make a difference.</p> <p>GOALS: (The goals should ideally be tailored to the presentation and its target audience)</p> <ul style="list-style-type: none"> ● To understand the basic concept of Environmental Justice ● To learn about what is going on in their community ● To offer opportunities to activities that are happening in the community ● To trigger/spark students to become active in the community ● Learn about ways that they can resist injustice in their own community, AGENDA: <p>Explain who we are Introduction Ice Breaker activity</p> <p>Activity 1. (Word Association) Defining key terms with the audience: “Environment” and “Justice.” This activity will allow all students to collectively define the words written on the board (Butcher</p>
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			<p>Paper, White/Black Board, etc.). After the activity, provide the official definition of Environmental Justice according to Dr. Bullard. Ask students: What comes to mind when they hear the words on the board (one word at a time) Write all words down that are relevant on the board.</p> <ol style="list-style-type: none"> 1. Write down on the board the two words: Environment and Justice? (7 min) 2. What is missing on the board from the words Environment and Justice? 3. Ask the group if they have ever heard the term Environmental Justice? <p>Activity 2. (Community Mapping Exercise) On a piece of posted have each student write down his/her name on a piece of post-it paper and place it on the pre-drawn map of their community. This activity is to allow students to analyze their place in the community</p>
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			<p>and later allow to compare their place in the community to actual maps of toxic sites and Toxic Release Inventory (TRI). 1. Show TRI map 2. Break out session (Groups of 5-8 people per group)</p> <p>3. Have each group analyze the contents of the maps and write down on a butcher paper their findings. 4. Each group should report back to the larger group what they found. ***Toxic Tour Power Point (7-15 min) presented by U.V.O.P*** Activity 3. (Step up exercise) The entire classroom (instructors and presenters included) stand in a large circle. Instruct them to step towards the center of the circle for every statement that they agree with. After each statement briefly explain how some of these areas can have a 15 significant correlation to EJ, (Example: Asthma rates in areas where freeways are located, Gas stations and</p>
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			underground leaking storage tanks etc.) . As they move closer and closer to the center, they can visual how impacted they are by environmental injustices.
	1.2: Model for ethical and environmental justice decision-making, ethical conduct of environmental behavior, and additional codes of ethics as appropriate to the environmental context.	1.2.1: All people should be equally exposed to environmental pollution and risks.	Search for evidence to show that vulnerable communities pay the highest price for environmental justice issues brought upon by polluters. Environmental justice really reflects the fundamental reality that vulnerable communities are all too often subject to the disproportionate burden of pollution and contamination. Environmental injustice education helps students see that communities of color and low income are disproportionately impacted by environmental problems. It also challenges students to think deeply and critically about the root causes of environmental problems and the factors that need to be

			considered as we identify and implement solutions.
		1.2.2: The right to the goods of nature belongs to everyone. 1.2.3:	
	1.3: Identify environmental injustices at the local and national level that impact peoples' well-being.	1.3.1: Apply critical thinking to analyze, formulate, and advocate for environmental justice policies that advance people's well-being.	Student will research local and national environmental injustices and demonstrate an understanding of how these injustices can be tackled.
		1.3.2: Identifying and combating environmental injustice can be difficult, but with proper education, students and adults alike can create change in their communities.	Environmental justice is a critical part of improving and maintaining a clean and healthy environment, especially for those who live, work and play closest to sources of pollution and toxins. Understanding the need to promote environmental justice helps students recognize that not all communities are protected from harm. It shows how people and communities have unequal access to ecological benefits such as clean air, water and open space and to social benefits like decent housing,

			safe neighborhoods, quality schools and access to health care.
2. Social justice	2.1: Apply their understanding of social justice to advocate for human rights at the individual and system levels.	2.1.1: Instructors can incorporate human rights and social justice knowledge and skills in their courses.	Cultivate the belief that helping those less fortunate than me will change my life. Engage in practices that advance social justice Students will both collect and read materials related to social justice.
		2.1.2: The teacher should talk to his/her learners about the power structures, social injustice and oppression	Empowerment could include being informed of their rights, having validation of their lived experiences of oppression, and preventing further unmet needs. The activities often promoted collaboration with clients on work that would promote human rights and social and economic justice in their communities
		2.1.3 The teacher should engages his/her learners in collective action	Engaging in collective action to investigate and address social justice issues.
	2.2: Model for ethical and social justice decision-making, ethical	2.2.1:	
		2.2.2:	

	conduct of cultural behavior, and additional codes of ethics as appropriate to the environmental context.	2.2.3:	
	2.3: Identify social injustices at the local and national level that impact peoples' well-being.	2.3.1: Apply critical thinking to analyze, formulate, and advocate for social justice policies that advance people's well-being.	Student will research local and national social injustices and demonstrate an understanding of how these injustices can be tackled.
3. Economic justice	3.1. Students should be engaged at activities in order to understand economic justice	3.1.1. Engage students in practices that advances economic justice	Students will both collect and read materials related to economic justice. Students will apply their understanding of economic justice to advocate for human rights at the individual and system levels.
	3.2: Express a willingness to get involved and take action to advocate for human rights and economic justice.	3.1.1: An alternative to the minimum wage could be a salary that calculates a decent standard of living.	
		3.2.2: Economic activity should be within the bounds of morality	Engaging in collective action to investigate and address economic justice issues.
		3.2.3: Economic prosperity is	

		not an indicator of the wealth we hold, but how well this wealth is distributed in a fair way.	
	3.3: Model for ethical and economic justice decision-making, ethical conduct of behavior, and additional codes of ethics as appropriate to the economic context.	3.3.1: Identify economic injustices within students' communities	Student will identify an evidence-based economic injustices within their communities and discuss their ethical and economic impacts.
	3.4. Identify economic injustices at the local and national level that impact peoples' well-being.	3.4.1: Apply critical thinking to analyze, formulate, and advocate for economic justice policies that advance people's well-being.	Student will research local and national economic injustices and demonstrate an understanding of how these injustices can be tackled.
4. Cultural justice	4.1: Apply their understanding of cultural justice to advocate for human rights at the individual and system levels.	4.1.1: Instructors can incorporate human rights and cultural justice knowledge and skills in their courses.	Engage in practices that advances cultural justice Students will both collect and read materials related to cultural justice. Student will identify an evidence-based cultural injustices within their communities and discuss their ethical and cultural impacts.

		Express a willingness to get involved and take action to advocate for human rights and cultural justice	Identifies and appreciates various viewpoints and questions assumptions and challenges stereotypes Engaging in collective action to investigate and address cultural justice issues.
4.2: Demonstrate cultural sensitivity in one's own life.	4.2.1:	Demonstrate responsibilities and opportunities of operating as a citizen within a multicultural environment.	Adapts personally to different cultures and communicates effectively
	4.2.2:	Appreciate the presence of the refugees in one's city.	Apply knowledge of human behavior and the social environment, person-in-environment, and other multidisciplinary theoretical frameworks to engage with refugees and constituencies.
	4.2.3:	Demonstrate an understanding of the essential concepts, trends and foundations of world civilizations.	
4.3: Global awareness and appreciation.	4.3.1:	Identifies the foundational cultures, events, institutions, ideas, areas of conflict and cooperation among cultures.	
	4.3.2:	Develops a sophisticated conceptual framework for analyzing global developments.	Promotes tolerance and the free exchange of ideas

		4.3.3: Examines and critiques information and arguments related to substantial global issues.	To articulate information needs, to search for data, information and content in digital environments, to access them and to navigate between them. To create and update personal search strategies.
	4.4: Global Citizenship	4.4.1: Demonstrates an awareness of the growing interconnectivity of the world and the necessity of her/his ability to function within the global community.	
		4.4.2: Works effectively in different international or diverse settings.	
		4.4.3: Implements a program of action in conjunction with community service requirement.	
	4.4. Identify cultural injustices at the local and national level that impact peoples' well-being.	4.4.1: Apply critical thinking to analyze, formulate, and advocate for cultural justice policies that advance people's well-being.	Student will research local and national cultural injustices and demonstrate an understanding of how these injustices can be tackled.

Curriculum Area 4: EfS Contextualised in ICTs			
STANDARDS	COMPETENCES	PERFORMANCE INDICATORS	CLASSROOM RESOURCES
1. Developing EfS learning activities through the use of ICT.	1.1: Effectively and consistently applies the use and understanding of technology as a tool for EfS learning and communicating the learning	1.1.1: Use various learning resources that cut across issues related to sustainability with the support of ICTs.	Incorporating learning principles and strategies that include active learning, collaboration and cooperation
2. Demonstrate Ethical & Professional Behavior in EfS	2.1: Demonstrate professional behavior in EfS	2.1.1: ICT as a tool for interactive communication in EfS. Demonstrate professional demeanor in behavior; appearance; and oral, written, and electronic communication in EfS, using various ICT tools	Each week, student will write a one-page summary reflecting on issues of professional demeanor, professional identification and growth, and performance in EfS. In weekly summary (described above), student will also include: 1) the

			discussion of their emotional response to client situations and how they addressed that response; and 2) an analysis of their use of self in the therapeutic relationship Use electronic communication and presentation tools effectively and responsibly to participate
		2.1.2: Use supervision and consultation to guide professional judgment and behavior in Efs	Student will read the NASW Code of Ethics and will discuss core values and professional obligations
	2.2: Demonstrate ethical behavior in Efs	2.2.1: • Use technology ethically and appropriately to facilitate practice outcomes in Efs.	
		2.2.2: Students will utilize ethical decision-making	Student will utilize an ethical decision-making model each semester and review with field instructor, including discussing the issue of ambiguity in resolving social, cultural, economic and environmental injustices.

		2.2.3: To be aware of behavioural norms and know-how while using digital technologies and interacting in digital environments. To adapt communication strategies to the specific audience and to be aware of cultural and generational diversity in digital environment.	
3. Teachers' knowledge, attitudes and action regarding EfS	3.1 Teachers' knowledge of EfS	3.1.1: Know the foundations of EfS including its main principles, goals, theories, and practices.	Teachers understand the essential understandings of EfS including: systems, interdependence, integration and infusion, roots in the real world, and the importance of where ones lives, and lifelong learning (NAAEE, 2010).
		3.1.2.: Teachers recognize the effects of local and global environmental issues, human impacts and sustainability practices on all forms of life.	Teachers acknowledge that the choices we make individually and collectively each day in relation to the environment affect our lives, our families, our communities, and the world

			around us
		3.1.3: Teachers recognize the value and relationship of critical and creative thinking to support active and caring citizenship.	
	3.2: Teachers' attitude towards EfS	3.2.1: Teachers demonstrate empathy, respect, and care for all elements of the natural world.	
		3.2.2: Teachers articulate and reflect on their personal values, beliefs, and understandings related to local and global environmental issues; Recognize and embrace perspectives other than their own when teaching and learning about environmental issues.	Use ICTs to engage future learners in studying local and global issues
		3.2.3: Teachers communicate a sense of urgency for positive environmental change; Are comfortable critiquing and challenging unsustainable practices within the education system and beyond; Maintain a sense of hope and optimism for the future	
	3.3: Teachers' action for EfS	3.3.1: Utilize different bodies of knowledge, teaching	Locate, critically review, and adapt instructional materials

		<p>methodologies, and curriculum areas, and apply these to their understanding of sustainability issues and EfS; Facilitate student-centred, experiential learning in EfS; Integrate EfS in and across the curriculum</p>	<p>in EfS; Develop and deliver developmentally, culturally and linguistically appropriate EfS curriculum and instruction that meets the diverse needs of learners. Apply authentic assessment strategies to support EfS learning;</p>
		<p>3.3.2: Demonstrate inquiry and critical and creative thinking skills to ask and investigate questions about the environments in which they live;</p>	<p>Collaborate with others to connect their own and others' lives to the broader communities in which they live and learn;</p>
		<p>3.3.3: Engage in ongoing EfS professional development opportunities.</p>	
<p>4. Engage Diversity & Difference in EfS Practice</p>	<p>4.1: Understanding of the importance of diversity and difference.</p>	<p>4.1.1: Apply and communicate understanding of the importance of diversity and difference in shaping life experiences in EfS practice at the micro, mezzo, and macro levels. Use ICT as a tool for interactive generating and sharing of knowledge in EfS. •</p>	<p>Engage with diverse students, their families & communities Use learners' life experiences to develop their knowledge and skills in using ICTs Use ICTs as a means to integrate my learners' life</p>

			<p>experiences on tackling sustainability issues, such as climate change.</p> <p>Schools and students could help to generate local knowledge. By researching and documentation of local waters (lakes and rivers), traffic situation, land use, agricultural situation, biodiversity (trees, plants ...) schools normally collect a lot of information which is normally not really used. Offering platforms to upload this information and its interpretation could on one hand improve local discussion on the special topics. On the other hand sharing this information with students from other regions and countries could be the starting point of intercultural exchange and raise new questions and could help to develop different perspectives and cultural understanding. Students in Europe are used to realize</p>
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			different seasons by making nature research, (spring, summer, ICT as a tool for interactive sharing of knowledge and information
		4.1.2: Identify and discuss appropriate intervention strategies based on the assessment, research knowledge, and values and preferences of diverse students and constituencies	Use empathy, reflection, and interpersonal skills to effectively engage with diverse people and constituencies. Present themselves as learners and engage clients and constituencies as experts of their own experiences.
		4.1.3: Apply self-awareness and self-regulation to manage the influence of personal biases and values in teaching students with diverse socio-cultural backgrounds.	Students discuss issues of self-awareness and difference among themselves and diverse students, using critical reflection addressing personal biases and value differences.
	4.2: Demonstrate empathy, reflecting content and meaning, and establishing rapport.	4.2.1:	
		4.2.2:	
		4.2.3:	
	4.3: Critically choose and implement interventions	4.3.1: Apply knowledge of human behavior and the social environment, person-in-environment, and other	

		multidisciplinary theoretical frameworks in interventions with clients and constituencies.	
		4.3.2: Negotiate, mediate, and advocate with and on behalf of diverse population and constituencies.	
		4.3.3: Demonstrate the ability, to effectively link vulnerable students with appropriate social services.	
	4.4: Select and use appropriate methods for evaluation of outcomes.	4.4.1: Apply knowledge of human behavior and the social environment, person-in-environment, and other multidisciplinary theoretical frameworks in the evaluation of outcomes.	Learning contracts are used as a tool for planning learning opportunities, connecting classroom content with fieldwork, and serving as a basis for evaluation
		4.4.2: Critically analyze, monitor, and evaluate intervention and program processes and outcomes.	
		4.4.3: Apply evaluation findings to improve practice effectiveness at the micro, mezzo, and macro levels.	
5. Engage in EfS Practice-informed Research & Research-informed	5.1: Use practice experience and theory to inform scientific inquiry and research in EfS	5.1.1: Apply critical thinking to engage in analysis of quantitative and qualitative research methods	

		and research findings in EfS	
		5.1.2: Use and translate research evidence to inform and improve practice, policy, and service delivery in EfS.	
6. Advance the knowledge economy through EfS	6.1: Use digital technologies, communication/networking tools and social networks appropriately to access, manage, integrate, evaluate and create information regarding EfS to successfully function in a knowledge economy	6.1.1: Effectively and consistently uses technology, communication and relationships to successfully operate in a knowledge economy (creating, evaluating and trading knowledge regarding EfS)	Choose when to use technology and when not to, based on the given purpose. Choose technology tools appropriate to the given purpose
	6.2: Sharing information regarding EfS through digital technologies	6.2.1: To share data, information and digital content with others regarding EfS through appropriate digital technologies.	

		6.2.2: To act as an intermediary, to know about referencing and attribution practices regarding EfS.	
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Curriculum Area 5: ICTs Contextualised in EfS			
STANDARDS	COMPETENCES	PERFORMANCE INDICATORS	CLASSROOM RESOURCES
1. Demonstrate knowledge and skills in basic ICTs to support EfS teaching and learning.	1.1: ICT basic skills as a tool to develop competence in the field of EFS	1.1.1: Identify and define the functions of computer peripherals (i.e. printer, scanner, modem, digital camera, speaker, etc.)	
		1.1.2: Properly connect main components, configure peripherals and install drivers when required	
		1.1.3: Configure computer settings of various software and hardware.	
	1.2: ICT basic functional skills as a tool to develop competence in the	1.2.1: Identify and define the functions of the main	

	field of EFS	components (i.e. monitor, CPU, keyboard, mouse) of the computer.	
		1.2.2: Understand the basic functions of the operating system.	
		1.2.3: Organize and manage computer files, folders and directories.	
	1.3:	1.3.1: Use storage devices (i.e. hard disk, diskette, CD, flash memory, etc.) for storing and sharing computer files. Create back-ups of important files	
		1.3.2: Protect the computer from virus, spyware, adware, malware, hackers etc.	
		1.3.3: Use online and offline help facilities for troubleshooting, maintenance and update of applications.	
2. Demonstrate knowledge and	3. Word processing	2.1.1: Use a word processor to enter and edit text, and images.	

skills on ICT productivity tools to support EfS		2.1.2: Format text, control margins, layout and tables.	
		2.1.3: Print, store and retrieve text documents from a word processor.	
	2.2: Spreadsheet	2.2.1: Use a calculation spreadsheet to enter data, sort data and format cells into tables.	
		2.2.2: Make computation, use formula and create graphs using spreadsheets.	
		2.2.3: Print and store data tables using a spreadsheet application.	
	2.3: Enhance slide presentations by adding sound, customizing animation and inserting images	2.3.1: Make effective class presentations using the slides and LCD projector.	
		2.3.2: To acquire digital images and other media from web sites, CD, flash drives, etc.	
		2.3.3: Crop, scale, color correct and enhance digital images.	
	3. Demonstrate knowledge and skills in information and data	3.1: To store, manage, and organise digital data, information and content.	3.1.1: Send and receive emails with attachments, manage

management.		emails.	
		3.1.2: Download and install relevant applications including freeware, shareware, updates, patches, etc.	Apply these tools in the service of a wide variety of information-related tasks, including seeking, storing, organizing and communicating to name a few.
		3.1.3. Efficiently store and organize collected information using directories, drives, or databases.	Take notes or otherwise gather, record, or store the information for later use. Organize information in a way that addresses the topic, problem, or task. Use current applications (including specific features of appropriate tools) as needed, to store, organize, present, and convey information effectively and efficiently.
	3.2: Articulate information needs, to locate and retrieve digital data, information and content.	3.2.1: Search and collect textual and non-textual information from online and offline sources	
		3.2.2: Approach tasks and projects that require information in a strategic, planned way that	

		considers the problem, the likely information sources, the quality and relevance of the information, and its appropriate and effective use.	
		3.2.3: Distribute, share, publish and print information via print or web, Properly acknowledge information sources – online and offline.	Identify and note the source of the information so it can be cited correctly. Identify elements essential for properly citing an information source. Select an appropriate citation style. Use that style consistently when citing sources.
4. Understand and observe legal practices in the use of technology while dealing with EfS teaching and learning.	4.1: Apply a fundamental understanding of the ethical/legal issues surrounding the access and use of information technologies	4.1.1: Understand the legal implications of Software Licenses and Fair Use.	
		4.1.2: Understand and explain the basic concepts of Intellectual Property Rights.	
		4.1.3: Differentiate and identify the Copyright, Trademark, Patent of various products.	
	4.2: Recognize and practice ethical	4.2.1: Properly acknowledge	

	use of technology in both personal and professional levels. Manage data researched and applied for information technology ethically and legally	sources used in own work.	
		4.2.2: Be an Anti Piracy advocate for all products with IPR like music, data, video and software.	.
	4.2.3: Advocate the responsible use of various technologies like computers, cell phones, etc. Show respect for privacy and cyber etiquette, phone etiquette and similar use of technology	Develop an adaptive life-long learning approach to changing technologies that gives proper consideration to the implications associated with their use. Recognize and address issues associated with information and technology use, such as privacy, confidentiality, security, intellectual property, and responsible use. Consider the ethical and legal	
4.3: Plan, model and promote a safe and sound technology supported learning environment.	4.3.1: Demonstrate proper handling of computer devices and use of applications		
	4.3.2: Monitor how students use the computer specifically on		

		software, hardware, computer games, and internet activities.	
		<p>4.3.3: Maintain a clean and orderly learning environment for students</p> <p>Promote and implement rules and regulations on properly using computers</p> <p>Accurately report malfunctions and problems with computer software and hardware.</p>	
<p>5. Facilitate equitable access to technology that addresses learning, social and cultural diversity.</p>	<p>5.1:</p>	<p>5.1.1: Design class activities to minimize the effect on students being disadvantaged or left-out.</p>	
		<p>5.1.2: Help minimize the effects of the digital divide by providing access to digital materials for all students.</p>	<p>ICTs can empower and help to facilitate greater access to Efs learning by disadvantaged people, marginalised groups and communities. However, the ‘digital divide’ still remains a major challenge, especially for women and other disadvantaged groups, is still a problem that challenges educators and policy makers.</p>

			based authoring tools and scripting languages to develop learner-centred and self-instructional modules
		5.1.3: Prepare lessons and activities appropriate to the level of learning and cultural background of students Adapt activities using specialized hardware and software for physically disadvantaged student	
6. ICT-enabled pedagogy to support EfS teaching and learning. •	6.1: Apply technology to develop students' higher order thinking skills and creativity.	6.1.1: Make students use databases, spreadsheets, concept mapping tools and communication tools, etc.	EfS methods are conducive with constructivist and transformative learning theories, which can provide a context and rationale for using ICT-based learning tools such as concept mapping, modelling, social

			networking. Providing Web-based resources using hypermedia and multimedia links to support students' experiential, constructivist and transformative learning activities
		6.1.2: Encourage students to do data analysis, problem solving, decision making and exchange of ideas.	Evaluate relevance, reliability, validity, accuracy, authority, currency, and bias of data
	6.2: Provide performance tasks that require students to locate and analyze information and to use a variety of media to clearly communicate EfS results.	6.2.1: Use appropriately slide presentations, videos, audio and other media in the classroom.	
		6.2.2: Teach students to use various multimedia materials for the reports and class presentations.	
	6.3: Conduct open and flexible learning environments where technology is used to support a variety of EfS interactions among students, teachers and other stakeholders.	6.3.1: Use various synchronous and a synchronous communication tools (email, chat, white boards, forum, blogs).	Providing synchronous and asynchronous communication tools that help the knowledge construction process through self/group critical reflection

		6.3.2: To facilitate cooperative learning and exchange of ideas and information.	Use technology as a tool to research, organize, evaluate and communicate information Incorporate information from variety of appropriate sources effectively.
	6.4. EfS planning and ICT-enabled EfS	6.4.1. EfS planning with new pedagogy is an essential part of building a whole school approach to ICT-enabled EfS	Dissemination and communication of information on innovative ICT-enabled EFS examples and practices may provide opportunities for embedding EFS in the curriculum supported by ICTs. A vision that facilitates an education model responsive to the development of ICT-enabled EfS is often missing among education planners and policy makers as they: 1. focus on the environmental pillar of sustainable development, neglecting the other three pillars (social, cultural and economic); 2. do not exploit the potential of ICTs in addressing

			<p>sustainability issues, especially Web 2 technologies and use of open education resources (learning objects) available in the Web; and employ technocentric approaches</p> <p>EfS themes integrated into the school curricula could provide a worthwhile context for ICTs in education. For instance, social, economic and environmental issues can provide meaningful and challenging contexts for developing a wide range of ICT skills.</p> <p>When considering areas such as cultural diversity and intercultural understanding, health, HIV/AIDS, governance, natural resources, climate change, rural development, sustainable urbanisation, poverty alleviation, corporate responsibility and accountability, there is potential to assess the impact of ICTs in these key</p>
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			sustainable development areas.
	7.1: Evaluate usage of ICT integration in the teaching-learning process and use results to refine the design of learning activities	7.1.1: Design rubrics for assessing student performance in the use of various technologies	
		7.1.2: Use electronic means of administering quizzes and examinations	
		7.1.3: Analyze assessment data using spreadsheets and statistical applications.	
	7.2: Use computers and other technologies to collect, analyse, discuss and communicate sustainability justice information to students colleagues, parents, and others	7.2.1: Use emails, group sites, blogs, etc. For disseminating information directly to students, colleagues and parents	
		7.2.2: Use emails, group sites, blogs, etc. to collect information and feedback directly from students, colleagues and parents	
		7.2.3:	
	7.3: Apply technology to facilitate a variety of appropriate assessment and evaluation strategies recognizing the	7.3.1: Explore the use of electronic assessment tools like on line testing, submission of projects via email or on line	

	diversity of learners	facilities	
		7.3.2: Set up online databases or repositories of student works	Providing links to online databases, experts, virtual laboratories and knowledge repositories dealing with sustainable development issues Distinguish free internet from database sources; choose accordingly
8. Using ICT tools to enable collaboration of students, teachers, researchers and local communities for EfS.	8.1: ICT as a tool for collaboration with other schools	8.1.1: Use existing ICT tools and networks networks to develop collaboration with other schools	ICT mostly special websites could help schools to find other schools which are interested in collaboration and exchange with other schools. The existing tool of E-twinning is already well developed and used by schools all over Europe. In the field of EFS we should add another offer and integrate such tools in existing platforms and websites, such as information and knowledge management websites. Schools which are involved in campaigns like CO2nnect or Beagle should be attracted to exchange their

			experiences with Education sectors are lagging behind to capitalise on ICTs potential in promoting EFS
	8.2: ICT as a tool for collaboration with research institutions	8.2.1: Use existing tools (websites and blended learning tools) to collaborate with research institutions	As learnings from the practice of Support and CO2nnect and additional on the basis on a short research of already existing tools - mostly websites and blended learning tools – we will offer our ideas on using ICT in high quality EfS. This guidelines addresses educators, developer of tools and decision makers in the field of formal and informal education. ICT and the different phenomena of tools have already become part of everyday life in different countries.
	8.3: ICT as a tool for collaboration with local communities	8.3.1: Interact, communicate and collaborate through digital	Helping people to use it in an intelligent and social

	:.	technologies while being aware of cultural and generational diversity	excepted way is the main challenge on the way to life-long-learning. The movement one-laptop-per-child e.g. can help to tear down social and global barriers. Offering good and developed tools for those children should be the general guideline for developers of ICT in the field of EfS.
		8.3.2: Participate in society through public and private digital services and participatory citizenship.	Engaging in citizenship through digital technologies To participate in society through the use of public and private digital services. To seek opportunities for self-empowerment and for participatory citizenship through appropriate digital technologies.
		8.3.3: Manage one's digital identity and reputation.	To create and manage one or multiple digital identities, to be able to protect one's own reputation, to deal with the data that one produces through several digital tools, environments and services

9. Managing data, information and digital content	9.1: Evaluating data, information and digital content	9.1.1. To analyse, compare and critically evaluate the credibility and reliability of sources of data, information and digital content.	Distinguish popular from scholarly sources; choose accordingly.
		9.1.2. To analyse, interpret and critically evaluate the data, information and digital content.	Find and access sources of information within the determined selections effectively and efficiently. Examine and evaluate each information resource individually. Amass a collection of appropriate sources for the given purpose. Examine compiled information and assess whether additional information sources are needed. Evaluate the resulting project or product; loop back as needed to any step in the information process.
	9.2: To create and edit digital content.	9.2.1. To create and edit digital content in different formats, to express oneself through digital means	Browsing, searching and filtering data, information and digital content
		9.2.2. Identifying needs and	To assess needs and to

		technological responses	identify, evaluate, select and use digital tools and possible technological responses to solve them. To adjust and customise digital environments to personal needs (e.g. accessibility).
		9.2.3. Creatively using digital technologies	To use digital tools and technologies to create knowledge and to innovate processes and products. To engage individually and collectively in cognitive processing to understand and resolve conceptual problems and problem situations in digital environments.
		9.2.4. Identifying digital competence gaps	To understand where one's own digital competence needs to be improved or updated. To be able to support others with their digital competence development. To seek opportunities for self-development and to keep up-to-date with the digital evolution

	9.3: Integrating and re-elaborating digital content	9.3.1. To understand how copyright and licences apply to data, information and digital content	To improve and integrate information and content into an existing body of knowledge while understanding how copyright and licences are to be applied
		9.3.2. To modify, refine, improve and integrate information and content into an existing body of knowledge to create new, original and relevant content and knowledge.	Integrate selected information into own knowledge base and value system.
	9.4. To organize data information and digital content	9.4.1. To organise, store and retrieve data, information and content in digital environments. 9.4.2. To organise and process them in a structured environment	Collecting already existing information and managing this information could help EfS by offering a knowledge based information. Most of the websites in the field of EfS are reduced on this part of just offering well organised information. This is already a resource for teachers and students. Platforms of such type offer normally information, good examples in the specific area, instruments for interpretation and helpful addresses and links to other teaching and

			learning resources. Offering the possibility to upload own information interactive could help to improve the specific knowledge. For example in the field of nature observation students could add their own observations to those already presented, maps of the dissemination of species could be interactively developed
	9.5. Programming	9.5.1. To know how to give understandable instructions for a computer system	To plan and develop a sequence of understandable instructions for a computing system to solve a given problem or perform a specific task.
10 Safety issues with ICTs	10.1: To protect devices, content, personal data and privacy in digital environments.	10.1.1. To protect devices and digital content, and to understand risks and threats in digital environments. To know about safety and security measures and to have due regard to reliability and privacy.	To protect personal data and privacy in digital environments. To understand how to use and share personally identifiable information while being able to protect oneself and others from damages. To understand that digital services use a “Privacy policy” to inform how

			personal data is used
	10.2: To protect physical and psychological health, and to be aware of digital technologies for social well-being and social inclusion.	10.2.1. To be able to avoid health-risks and threats to physical and psychological well-being while using digital technologies.	To be able to protect oneself and others from possible dangers in digital environments (e.g. cyber bullying). To be aware of digital technologies for social well-being and social inclusion.
	10.3: Protecting the environment	10.3.1. To be aware of the environmental impact of digital technologies and their use.	
11. Problem solving with ICTs	11.1: To identify needs and problems, and to resolve conceptual problems and problem situations in digital environments.	11.1.1. To use digital tools to innovate processes and products.	Encouraging learners in integrating LOs in the course while working with it, thus taking into consideration their needs and interests as well as their various learning styles.
		11.1.2.: To keep up-to-date with the digital evolution.	
		11.1.3. Solving technical problems	To identify technical problems when operating devices and using digital environments, and to solve them (from trouble-shooting to solving more complex problems).

