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Module 2. Sustainability-related skills and Instructional design approaches

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Learning objectives	As a result of engaging with the materials in this module, learners are intended to achieve the following **learning outcomes**: ▪ *Knowledge*: Awareness of sustainability-related (green) skills required in the tourism sector. Knowledge of instructional design approached suitable for teaching green skills. ▪ *Skills*: Ability to construct learning content and teaching/learning process based on single-concept learning, inquiry-based learning, service-learning approaches. ▪ *Attitudes*: Positive attitude to putting students in the position of active participants in their own learning.
Methods	**The methods** to be used in the delivery of Module 2 include: ▪ ***Autonomous learning*** by reading and studying the module materials and the complementary sources and links provided in the materials. ▪ ***Active learning***, i.e. implementation of learning activities developed for practical teacher training sessions. **Assessment** of the degree of mastery of the module content will be performed in the form of: ▪ ***Self-assessment*** by completing the self-test questions at the end of the module.
Time schedule	The **estimated time** to cover the module is as follows: ▪ Learning content (self-directed learning): ***8 hours*** ▪ Self-test questions: ***5 – 10 minutes*** ▪ Workshop dedicated to practical activities developed for Module 2: ***8 hours***

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Introduction

Growing demand for sustainable tourism products and services around the world increases the need for developing green skills in the tourism sector labour force. Although this calls for sustainability-oriented profile of people working in the tourism industry, as green skills are increasingly required by the employers in the sector, such skills are yet to be mainstreamed in tourism VET with a gap existing between skills required by the industry and those offered through educational programmes. And while green skills and related training shall include an understanding of the concepts of sustainable tourism, their practical application in the form of on-the-job experience in a real work environment, appropriate and relevant to the tasks and positions of tourism staff and the needs of their employers is of key importance.

As traditional vocational training necessitates a certain amount of classroom time, many people find it overwhelming and ineffective due to the fact that in the present fast-paced, technology driven times, people are overburdened with information and communication. They are busy, distracted and their attention spans are compromised. At the same time, people are expected to know more than ever before in order to keep up with changes within the world of work. Therefore, education and training institutions together with tourism companies must cooperate in the elaboration of training programmes and curricula that respond to the needs of the sector, while the industry must be involved in the teaching process, providing learners with time-effective trainings, practical placements and work experience.

To address the challenges outlined above, ESTET Module 2 'Sustainability-related skills and Instructional design approaches' includes topics related to design of the educational process based on innovative instructional design approaches conductive to learning about sustainability and developing right values and attitudes for sustainable action such as single-concept learning, inquiry-based learning and service learning. Thus, it provides the necessary connecting link between the project's Module 1 'Sustainable tourism development' which covers concepts related to sustainable tourism growth and new customer demand for sustainable tourism products and services, on the one hand, and Module 3 'Learning resources for the development of sustainability skills' that provides practically oriented information about set of media-rich and interactive teaching-learning resources for the development of sustainability skills by VET learners in the tourism sector.

2.1 Overview of sustainability skills in the tourism sector

2.1.A. Reinforce existing green skills in current curricula

Moving towards a greener, climate resilient tourism economy is increasingly important to ensure a sustainable development path for each country. However, the green transition will not happen if people do not have the awareness, knowledge and skills to drive it forwards. And that means big

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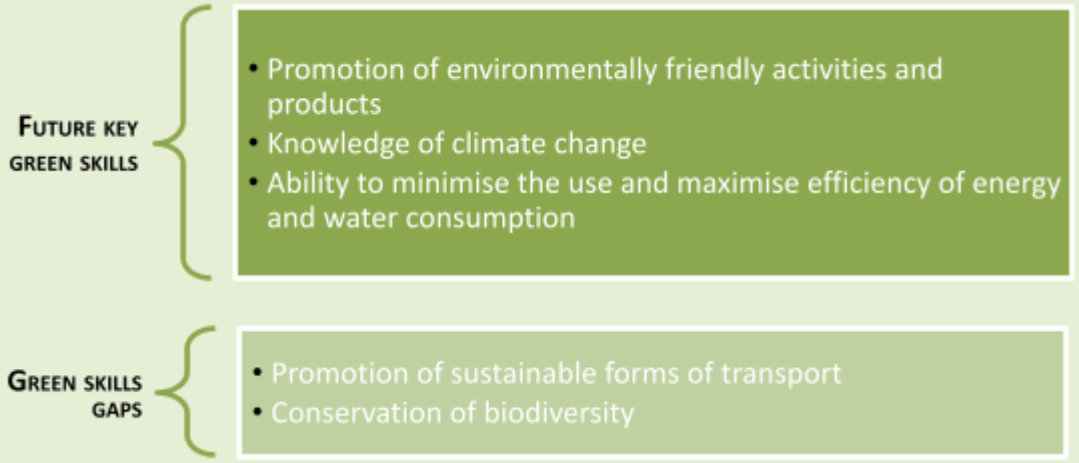
changes in education, training and lifelong learning. In fact, learning must support the green transition. (https://www.etf.europa.eu/en/news-and-events/news/skills-green-transition, 2021)

A large proportion of the current workforce do not have a tourism related education (Centre for Strategy and Evaluation Services, 2016). Current skills gaps revolve around language skills but also rather specific skills such as biodiversity, Artificial Intelligence and cultural awareness. Future key green skills in green tourism are predicted to centre on the promotion of environmentally friendly activities and products as well as knowledge of climate change (see Figure 1 below).

Figure 1. Future key green skills and green skills gaps



Source: Next Tourism Generation research summary

Therefore, there is the need to develop specific programmes and courses on sustainable tourism, as the results of the focus groups of the Conceptual Framework for embedding sustainability skills also demonstrates. In fact, the focus groups carried out in each partner country involved in the ESTET project reveal that, while there exists an in-depth understanding among VET educators and experts of various elements of sustainable tourism, there remains to be a gap in the education on sustainable tourism and in achieving the triple-bottom-line, especially due to policies, economic factors, and behavioural factors, among others. The focus groups revealed what skills educators think ought to be included, as well as methods of embedding them. In fact, the mapping of programmes and training that promote environmental skills delivered fragmented and rather unsatisfying results in each country involved in the project.

This finding is not surprising given the very often lack of political agenda as well as the low grade of public awareness and realization of the growing potential and necessity for such skills. For this purpose, a starting point could be the G20 Italy Presidency's agenda, which rests upon three main pillars: People, Planet, and Prosperity. Its call to "take care of people and of our planet, while ensuring a strong, inclusive and sustainable economic recovery" must be strongly heeded by tourism, which above all others is a sector that is dependent on the relationship between people and places for its prosperity and sustainability.

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The guidelines are based on the following seven interrelated policy areas, which are considered in turn. Each one of these areas has a bearing on all three of the above pillars (G20 Rome Guidelines for the future of tourism):

- Safe mobility: restoring and maintaining confidence in travel;
- Crisis management: minimising the impact of future crises affecting tourism;
- Resilience: securing a robust and stable tourism sector in uncertain times;
- Inclusiveness: widening community engagement and benefits from tourism;
- Green transformation: managing tourism to sustain global and local environments;
- Digital transition: enabling all tourism stakeholders to benefit fully from digital opportunities;
- Investment and infrastructure: focusing resources on a sustainable future for tourism.

Policy settings, strategies and processes should be improved in each country involved in the project to increase public awareness, also through the cooperation with stakeholders (such as the ministries of education, tourism, VET schools, tourism enterprises), developing alternative models, tourism itineraries, Action Plans, tools and capacity building events.

Moreover, from the Conceptual Framework, another important input is that skills and related training should include an understanding of the concepts of sustainable tourism but most of all their practical application, appropriate and relevant to the needs and positions of the personnel concerned: in fact, vocational training necessitates a certain amount of classroom time but mostly on-the-job experience in a real work environment. Therefore, institutions and tourism firms must cooperate in the preparation of training programmes and curricula that respond to the needs of the sector and the industry must be involved in the teaching process, providing students with practical placements and work experience. Practical aspects of sustainability, for example in environmental management processes, should also be included in vocational training.

Today, a best practice could be the example of the Global Sustainable Tourism Council (GSTC) (https://www.gstcouncil.org/gstc-criteria/). GSTC establishes and manages global standards for sustainable travel and tourism, known as the GSTC Criteria. The Criteria are used for education and awareness-raising, policy-making for businesses and government agencies and other organization types, measurement and evaluation, and as a basis for certification. Moreover, GSTC Criteria are the result of a worldwide effort to develop a common language about sustainability in tourism. They are arranged in four pillars: (A) Sustainable management; (B) Socioeconomic impacts; (C) Cultural impacts; and (D) Environmental impacts. Since tourism destinations each have their own culture, environment, customs, and laws, the Criteria are designed to be adapted to local conditions and supplemented by additional criteria for the specific location and activity. Moreover, the process of developing the Criteria was designed to adhere to the standards-setting code of the ISEAL Alliance, the international body providing guidance for the development and management of sustainability standards for all sectors. That code is informed by relevant ISO standards. These Criteria are the minimum, not the maximum, which businesses, governments, and destinations should achieve to approach social, environmental, cultural, and economic sustainability.

Regarding tourism sector sustainability, to ensure the protection and valorisation of the natural and cultural resources of the area, the heavy impacts of the pandemic on this sector create an urgent need to sustain its recovery.

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For example, for MED regions involved in the project, the recovery of sustainable tourism should be addressed transversally, in order to allow "MED regions to practice a tourism governance that enables continuous improvements of environmental, social and economic sustainability, increases competitiveness through quality and innovations and ensures implementation and monitoring of strategies and policies" (Panoramed Key Policy Paper on tourism, June 2020).

Indeed, this is more than ever the opportunity to support a permanent and sustainable change in tourism practices in all countries, after the present pandemic COVID-19, developing alternative models, tourism itineraries, Action Plans, tools and capacity building events.

2.1.B. Forgotten green skills

What does "forgotten green skills" mean in the context of sustainable tourism?

It is interesting to start from too often forgotten environmentally friendly routines regarding sustainable practices:

1) Transports: the first rule for responsible travel is to choose sustainable modes of transport such as the train, bike sharing services, electric car and public transport.
2) The ticket app: in the digital age, the paper ticket for the train or the hotel booking ticket is no longer needed because it is sufficient to store them on the smartphone using one of the many apps to choose from.
3) The right structure: convenient choice of hotels, B&Bs, farmhouses and any other type of accommodation with low environmental impact, sustainable and capable of enhancing the territory and its resources.
4) Towels: during a stay, it is recommended to avoid changing towels if it is not strictly necessary, in order to help the structure to reduce the load of washing and therefore the consumption of energy, water and detergent.
5) Lights and air conditioners: another good practice is to turn off lights and air conditioning when leaving a room, and make sure you have closed the water taps well to avoid any kind of waste.

Other forgotten skills, that should be applied for example by accommodation establishments, are:

- Own production of food products (e.g. milk, yoghurt, meat)
- Use of bio/eco food products
- Use of recycled paper for administrative purposes
- Natural bath cosmetics
- Cleaning with biodegradable substances

This means that there are practices that should be applied by the tourism employees, and others, intended for the tourists/consumers (e.g. policy for energy saving, water cleaning and saving, use of bioproducts, etc.) that implied that green education and training are necessary both for the workers and customers and these green skills must not be neglected or forgotten. In fact, the new generation of tourists come with an ever bigger environmental consciousness and seem to appreciate and even demand "green products" (Ivanov, Ivanova and Iankova, 2014).

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2.2 Instructional design approaches suitable for teaching sustainability skills

Instructional design can be defined as the practice of creating instructional materials, modules, lessons and experiences to help facilitate learning most effectively. An instructional design model (or approach) provides guidelines to organize appropriate pedagogical scenarios to achieve instructional goals, which can be successfully applied in the field of sustainable tourism skills development. Thus, instructional design approaches describe how to conduct the various steps of the instructional design process, helping trainers and educators to guide and plan the overall training delivery. The instructional design process furthermore consists of: a) determining the needs of the learners; b) defining the end goals and objectives of instruction; c) designing and planning assessment tasks; and d) designing teaching and learning activities to ensure the quality of instruction (Kurt, 2017).

2.2.A. Single-concept learning: concept and good practices/examples

Unlike the traditional approach, ***single-concept (aka bite-sized) learning*** is tailored to meet the needs of the modern learner. It enables people to engage with „snackable nuggets“ of information on a PC, mobile phone or tablet, anytime, anywhere. This information can be consumed on the go, during a coffee break or on a taxi. The learning objects are focused on one concept, allowing people to savour, digest and retain the information. The content is designed to fit into their schedules, and to meet their most urgent knowledge needs, rather than disrupting agendas with lengthy lectures and irrelevant information.

These single-concept learning bubbles are chained together or “chunked” to achieve the required outcome of a given study programme, incl. in the field of tourism VET, and are scheduled at regular intervals, which provide the necessary space for learners to absorb the information, and allow the brain to be open to be ready for the next information instalment when it comes. Thus, single-concept learning is taking the global online education industry by storm, as it is a natural response to the prevalence of mobile learning and an antidote to lack of time and resources in the workplace. Employees are not going to effectively engage with, and retain, the information when it is presented in a long-winded manner, and through this old-fashioned approach, businesses lose precious working hours in the process.

The ***factors*** that have contributed to the rise and popularity of single-concept learning are varied and intertwined. The key contributors have been the demand for mobile learning, the increase of Millennials in the workforce, which is highly relevant for the sector of tourism and the constant pressure faced by companies to develop courses quickly and at a low cost. With the prevalence of mobile communications, many companies have started to implement device-based learning, following the lead from their employees who want to be able to access information on their phones, on the go.

Millennials, the drivers of the mobile learning market, constitute a major share of the global workforce, are comfortable with any device, application or digital innovation and completely immersed in the world of social media and instant messaging. With this easy access to information comes a shortened attention span and the need for content to be exciting, dynamic and

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hyper-relevant. Single-concept learning is therefore perfectly suited to young working adults, and the ideal way to communicate, and educate, staff members effectively.

The ***unemployment problem*** in many of the developed economies can be attributed to a lack of skills, not a lack of jobs, as in the case of the tourism industry, new jobs are being opened as tourism all over the world is on the rise. In this and other sectors there is a huge skills shortage, and unfortunately there aren't the resources necessary to tackle the problem head on. Training is a necessity, but company pressure means that companies cannot afford to take time out of the busy work day to focus on training, and often don't have the budgets to develop text-heavy, printed content that was used in workforce education previously.

In addition, more young adults have access to a mobile device than they do to a desktop or laptop computer. Therefore single-concept learning offers and opportunity to engage with them wherever they are, in a way that is convenient, comfortable affordable and accessible. Another advantage of single-concept learning is that learners can download the information, to be used anywhere, anytime later on.

The biggest ***benefit*** to using single-concept learning is the improved learner engagement. Studies have shown that learners often find it hard to focus on course material for longer than 20 minutes at one time. This issue can be overcome by dispatching nuggets of useful information to the learner. Another benefit is that once consumed, this information will be digested and retained more effectively. Humans, especially in our technology-centred lives, have limited capacity to process information. As such, bite-sized courses are perfectly suited to how our brains are wired, allowing us to comprehend and be able to recall these morsels of information more successfully.

Just-in-time support is a very important element of workplace learning, especially in a dynamic and customer-driven sector, such as tourism. Rather than learning something just in case you might use it in the future, short learning modules can be engaged with in the moment they are needed. By providing real-time, relevant information, this enhances employee efficiency, and as such improves company productivity. Single-concept learning is becoming prevalent across the globe and businesses in EU Member States have the opportunity to ride the wave of this new learning methodology to empower their employees and improve productivity (Lamberti, 2017).

The Khan Academy is a great ***example*** of the practical application of the single-concept learning approach. Salman Khan got started teaching math into two- to four- minute chunks. Then he expanded the idea into other fields of learning. Even when teaching non-linear topics such as art, culture and tourism, he invites you on a five-minute learning journey about a single concept, such as "making Greek vases" or "the art of gem carving." To modern learners watching a video on a computer, tablet or smartphone, this approach is an irresistible alternative to the linear, logical, complete learning model we all grew up with. In his book, "The One World Schoolhouse: Education Reimagined," Khan lays out a convincing argument for his revolutionary learning model (Meyer, 2014).

2.2.B. Inquiry-based learning: concept and good practices/examples

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According to Anna J. Warner and Brian E. Myers, ***inquiry-based learning*** is "a teaching method that combines the curiosity of students and the scientific method to enhance the development of critical thinking skills." Inquiry-based learning promotes engagement, curiosity, and experimentation. Rather than being 'instructed to,' students are empowered to explore subjects by asking questions and finding or creating solutions. It's more a philosophy and general approach to education than a strict set of rules and guidelines, which can be easily applied to address green skills gaps in the tourism industry.

Although teachers can approach inquiry-based instruction in a variety of ways, a few basic components are important:

1. *Orientation/Observation*: The teacher introduces a new topic or concept. Students explore the topic through research, direct instruction, and hands-on activities.
2. *Question/Conceptualize*: Students develop questions related to the topic, make predictions, and hypothesize.
3. *Investigation*: This is the lengthiest part of inquiry learning. Students take the initiative, with appropriate teacher support, to discover answers, to find evidence to support or disprove hypotheses, and to conduct research.
4. *Conclusion*: Having collected information and data, students develop conclusions and answers to their questions. They determine if their ideas or hypotheses prove correct or have flaws. This may lead to more questions.
5. *Discussion/Sharing*: All students can learn from each other at this point by presenting results. The teacher should guide discussions, encouraging debate, more questions, and reflection.

Another way to approach an inquiry lesson is through the ***5-E model***. Each step in this type of lesson leads to the next (Team XQ, 2020):

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STEP 1 *Engagement*

- This is a preparation phase. The purpose is to introduce concepts and pique student interest. This is when teachers encourage students to begin developing their questions.

STEP 2 *Exploration*

- During exploration, students begin actively experimenting and strategizing to answer questions. Teachers observe and guide as students work in small groups.

STEP 3 *Explanation*

- With potential answers to the questions, students then report to the class. They show evidence for their answers and explain how they arrived at them.

STEP 4 *Elaboration*

- To develop a deeper understanding of concepts and connect them to others, discussion continues. In the elaboration phase, the class discusses new questions that arise. The teacher may also introduce related concepts to encourage the students to find connections.

STEP 5 *Evaluation*

- Teachers informally assess students throughout this process. They can also evaluate student learning with a more formal assessment. The culmination of the lesson or project may be a test, a report, a presentation, or some other type of assessment.

The main ***benefits*** of inquiry-based learning can be summarised in the following key points:

- improves student engagement;
- teachers get to observe students;
- provides an opportunity for authentic assessment;
- students achieve and demonstrate mastery;
- is driven by student interests;
- promotes teamwork;
- leads to improved knowledge retention.

Inquiry-based learning ***examples***, presented by Rudi W. Pretorius, Andrea Lombard and Anisa Khotoo in their article 'Adding value to education for sustainability in Africa with inquiry-based approaches in open and distance learning' are related to two sustainability related undergraduate tourism-related modules offered by the University of South Africa: the 2nd level module "Geography of tourism" and the 3rd level module "Ecotourism". Involvement of the authors with these modules includes planning and development, teaching, assessment, quality assurance and subsequent revision. Some of the dimensions of inquiry-based learning are illustrated, namely its range from small (i.e. an activity in a study unit) to large (i.e. covering a few study units) and its varied application (i.e. formative versus summative assessment).

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2.2.C. Service learning: concept and good practices/examples

According to Vanderbilt University, ***service learning*** is defined as: "A form of experiential education where learning occurs through a cycle of action and reflection as students seek to achieve real objectives for the community and deeper understanding and skills for themselves." Service learning can be also explained as: "An educational approach that combines learning objectives with community service in order to provide a pragmatic, progressive learning experience while meeting societal needs." That second definition is easier to comprehend, but it still feels more complicated than it needs to be. A simpler definition to further facilitate the understanding of the concept of service learning can be formulated, as follows: "In service learning, students learn educational standards through tackling real-life problems in their community." (Wolpert-Gawron, 2016).

Service learning is a combination of what we know as formal education and applying that learning in a service-oriented way. It is a type of educational philosophy that requires the student to demonstrate their knowledge, thus connecting the cognitive to the emotive and resulting in better learning outcomes. It incorporates personal passions with intellect, empowering students to find their passion and exercise useful ways to engage in real world problems. It is a connected learning experience, linking personal development with cognitive development and touching feelings as well as thought. Students take the ideas they learn about in theory and connect them to real problems in practice, creating viable solutions for long term transformation in society. The classroom becomes a place where thought is connected to passion, evoking real world change.

Community service has been a part of educational systems for years. But what takes service learning to the next level is that it combines serving the community with the rich academic frontloading, assessment, and reflection typically seen in project-based learning. In recent years this approach is gaining traction as professors and academic advisers review the learning outcomes of students that are encouraged to find and use their passions to exercise solutions to the problems around them, of which sustainable development (incl. in the field of tourism) is a major part. This is made more possible by the ideas that enable citizens to freely use their passions and intellect to become social entrepreneurs, individuals who undertake a social problem and become transformative forces in society.

International Field School Thematic Service-Learning (IFSTS-L) is an ***example of a collaborative program*** between the Duta Wacana Christian University Yogyakarta, Indonesia and Australia National University, Australia with a focus on tourism village development that has been running since 2009. This program is held annually with different locations. In 2016, the IFSTS-L program took place in Central Sumba Regency, Indonesia. This program focused on the learning process from the local community along with the conditions in which they live. Service learning is a result of an approach to the local community, finding out what the problems and potentials of the community are.

2.3 Guidelines for developing teaching-learning content in the field of sustainable tourism based on these approaches

As explained above, a ***single-concept learning module (SCLM)*** is an interactive content, most likely web based, presenting a concept step by step. Each step should be focused on one particular

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element of the overall concept, providing details and explanations using multimedia teaching techniques. Through an iterative process (see below), starting from a general perspective and ending with a sum up, each part of the concept is broken into pieces like a "divide and conquer" algorithm (Scano, 2004).

FRONT PAGE	• The front page should be very simple providing a quick access to every part of the content so users can access instantly a portion of it. Providing a table of content formed by links is really a plus. Though, the table of content could be in the first page instead of the front page, as part of the module to explain the coverage of the SCLM.
NAVIGATING	• Navigation should be really natural, having the navigation buttons clearly identifiable and even have shortcuts for them. Both forward and backward operations should be available. In addition, if the content is multimedia such as a video or an animation, make sure that it can be replayed without changing page. Also, selecting the pace of the animation is a plus. If a content is available in audio form, make sure that the speech is available in reading version both for hearing impaired people and as a handy tool allowing skimming instead of listening to the whole speech. Avoiding fancy text apparition and fading is a good advice not to lose the reader.
QUIZZES	• Quizzes are important because they evaluate the understanding and remembering of the concept. They don't have to appear at the very end and providing some questions at key points provides backup to the user to acknowledge his understanding. Quizzes should not be long, five questions is a good length, and must not lock the next content. Indeed, users are free to skip tests and go to the next topic or take all the tests at the end.
BACK PAGE AND FEEDBACK	• The last page should be a sum up of the SCLM providing information regarding test scores and coverage of the subject if the user didn't visit every page. It can provide a link to a feedback form. Feedback can be measured throughout the navigation recording the order the pages were visited in and storing the test results without implying any log in process

As an instructional model that centres learning on solving a particular problem or answering a central question, incl. in the field of tourism skills development, the process of ***inquiry-based learning*** can be broken down into 4 phases, that can be used to help teachers frame instruction (Heick, 2015):

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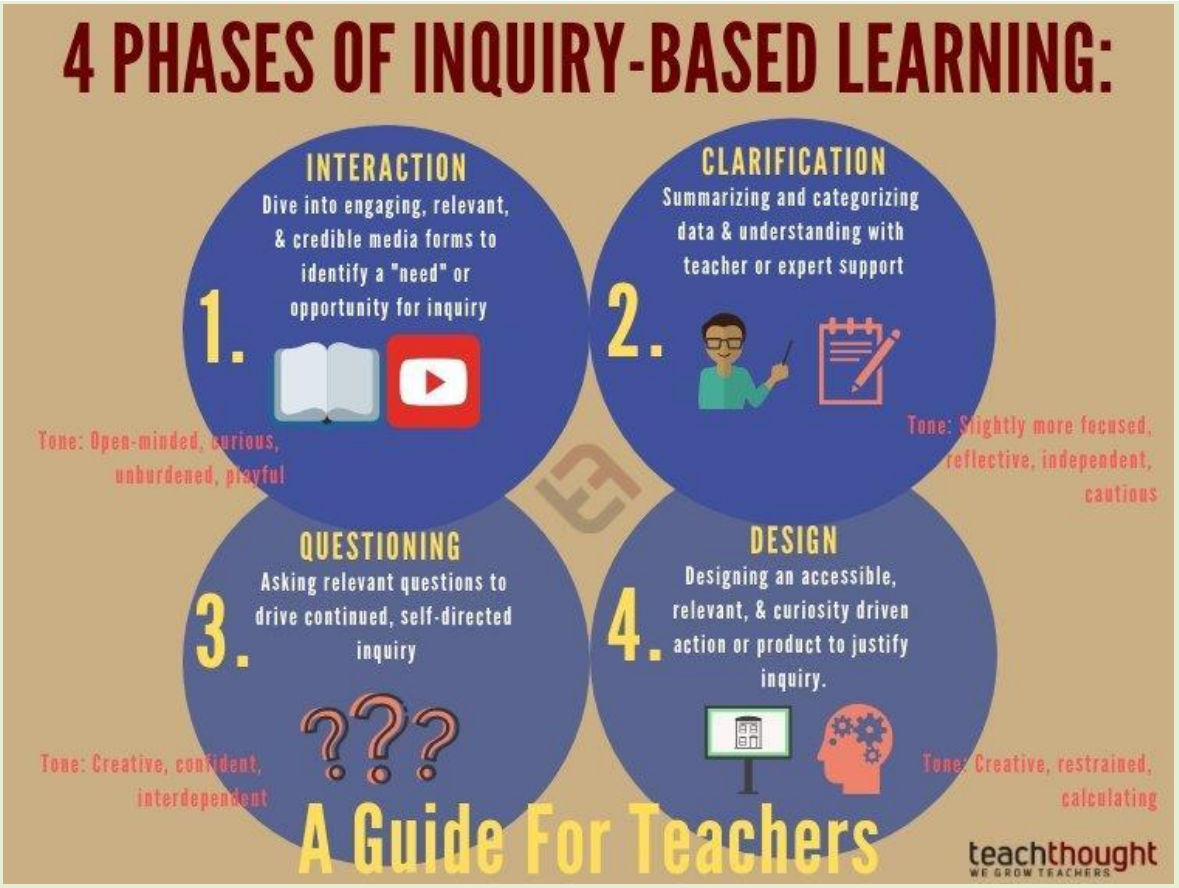

Finally, a ***service learning unit*** can be broken down into four parts for the purposes of addressing green skills gaps of tourism industry staff:

1. PRE-REFLECTION: Have your students brainstorm in writing the ways in which they can help their world or their local community.
2. RESEARCH: Guide your students in techniques to help them search wisely and efficiently. They should conduct online polls (crowdsourcing) and create graphs to chart their findings. Students should summarize their findings using embedded images, graphs, and other multimedia elements.
3. PRESENTATION: Have your students present their findings to the school, each other, and outside stakeholders. They can develop posters to promote their call to action, write a letter campaign, or develop a simple website. Students can "go on the road" with their findings to local schools and organizations or produce screencasts for the school website.
4. REFLECTION: Ask your students to think back on what they gained from journeying through this project. Have them reflect on the following:
   - What did you learn about the topic?
   - What did you learn about yourself?
   - How do you now think differently?

Useful links https://www.etf.europa.eu/en/news-and-events/news/skills-green-transition

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	A major international conference entitled "Building lifelong learning systems: skills for green and inclusive societies in the digital era" held 21-25/07/2021 is announced in the context of discussing green skills and jobs.
	https://www.gstcouncil.org/gstc-criteria/ The webpage presents the Global Sustainable Tourism Council (GSTC) criteria, which serve as the global baseline standards for sustainability in travel and tourism and are used for education, awareness-raising and policy-making measurement and evaluation.
	https://educationaltechnology.net/instructional-design/ The website provides a definition of the theory and practice of instructional design, together with a brief historical overview of the concept and the role of instructional designers.
	https://highdemandskills.com/single-concept-elearning/ The article describes the advantages of the single concept learning approach adapted to online delivery via the single concept e-learning model. Being online, the model allows for nonlinear patterns of training that suit modern learners.
	https://www.prodigygame.com/main-en/blog/inquiry-based-learning-definition-benefits-strategies/ The web material explains in detail 7 benefits of inquiry-based learning, together with 7 inquiry-based learning strategies and activities for teachers. https://cft.vanderbilt.edu/guides-sub-pages/teaching-through-community-engagement/ The web article deals with issues, related to clarifying the concept of service learning / community engagement, its benefits, models of community engagement teaching and ways to integrate community engagement into an existing course.

Summary of key points

- The green transition, i.e. moving towards a greener, climate resilient tourism economy will not happen if people do not have the awareness, knowledge and skills to drive it forwards.
- Green tourism-related skills gaps ask for developing specific programmes and courses on sustainable tourism.
- Single-concept (aka bite-sized) learning is tailored to meet the needs of the modern learner, as it enables people to engage with „snackable nuggets" of information on a PC, mobile phone or tablet, anytime, anywhere.
- Inquiry-based learning can be defined as a teaching method that combines the curiosity of students and the scientific method to enhance the development of critical thinking skills, thus promoting engagement, curiosity, and experimentation.
- From a practical point of view, in service learning, students learn educational standards through tackling real-life problems in their community by combining the process if serving the community with the rich academic frontloading, assessment, and reflection typically seen in project-based learning.

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- A single-concept learning module is an interactive content, most likely web based, presenting a concept step by step, whereas each step should be focused on one particular element of the overall concept, providing details and explanations using multimedia teaching techniques.
- As an instructional model that centres learning on solving a particular problem, incl. in the field of tourism skills development, the process of inquiry-based learning can be decomposed into 4 phases: interaction, clarification, questioning and design.
- A service learning unit can be broken down into four parts for the purposes of addressing green skills gaps of tourism industry staff: pre-reflection, research, presentation, reflection.

Self-assessment questions	
Question 1: Green skills gaps	
Content of question	For which of the following green skills the module content has identified existing gaps?
Answer 1	Promotion of environmentally friendly activities and products
Answer 2	Promotion of sustainable forms of transport
Answer 3	Knowledge of climate change
Answer 4	Conservation of biodiversity
Answer 5	Ability to minimise the use and maximise efficiency of energy and water consumption
Correct answer	2, 4
Question 2: Forgotten green skills	
Content of question	Which of the following skills cannot be classified as 'forgotten green skills'?
Answer 1	Own production of food products (e.g. milk, yoghurt, meat)
Answer 2	Natural bath cosmetics
Answer 3	Use of conventional food products
Answer 4	Use of recycled paper for administrative purposes
Answer 5	Cleaning with biodegradable substances
Correct answer	3
Question 3: Single-concept learning	
Content of question	Which of the following statements related to the single-concept learning is incorrect?
Answer 1	Single-concept learning is also known as bite-sized learning
Answer 2	The single-concept learning content is designed to fit into trainees' schedules and to meet their most urgent knowledge needs
Answer 3	These single-concept learning bubbles are chained together or "chunked" to achieve the required outcome of a given study programme
Answer 4	The information provided through the single-concept learning approach can be consumed on the go, during a coffee break or on a taxi
Answer 5	Single-concept learning enables people to engage with „snackable nuggets" of information and can be used only on mobile phone or tablet
Correct answer	5
Question 4: Inquiry-based learning	
Content of question	Which of the following steps of the inquiry-based learning 5-E model falls outside the logical sequence of the other four?

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Answer 1	Explanation
Answer 2	Engagement
Answer 3	Exploration
Answer 4	Elaboration
Answer 5	Evaluation
Correct answer	1

Question 5: Service learning	
Content of question	A service learning unit can be broken down into four parts for the purposes of addressing green skills gaps of tourism industry staff, which include:
Answer 1	orientation, questioning, investigation, conclusion
Answer 2	interaction, clarification, questioning, design
Answer 3	observation, conceptualizing, research, discussion
Answer 4	pre-reflection, research, presentation, reflection
Answer 5	explanation, development, evaluation, sharing
Correct answer	4

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