Provision of Capacity Building on Green and Entrepreneurial Learning

A TOOLBOX FOR TEACHERS AND TRAINERS
Provision of Capacity Building on Green and Entrepreneurial Learning

A TOOLBOX FOR TEACHERS AND TRAINERS

ACKNOWLEDGMENTS

This document is published by the United Nations Industrial Development Organization (UNIDO) and is supported by the UNIDO-UNESCO global initiative “Building resilience in TVET for a just and green transition” funded by GIZ and implemented by UNIDO through the Learning and Knowledge Development Facility (LKDF).

The content of this document has been developed by the National Centre for Development of Innovation and Entrepreneurial Learning (NCIDE) and FH Joanneum University of Applied Sciences under the overall leadership of UNIDO. The pilot institution is the Selam Technical and Vocational College (STVC) in Addis Ababa, Ethiopia.
A toolbox for teachers and trainers

CONTENT AND FIGURES

Abbreviations and acronyms .................................................................................................................. 6
Toolboxes ............................................................................................................................................... 7
I.  Background and context .................................................................................................................. 8
II.  Knowing the essence of entrepreneurial and green related education ................................. 9
   II.1  Goals and methodological background ............................................................................... 9
   II.2  Selecting effective practices: workshop findings ................................................................. 10
III.  Toolbox for delivering green and entrepreneurial learning ...................................................... 13
References .......................................................................................................................................... 38

Figure 1  Expert-led workshop on «Green Skills for Teachers in TVET» at Selam Technical and Vocational College, Ethiopia

Figure 2  Expert-led workshop on «Green Skills for Teachers in TVET» at Selam Technical and Vocational College, Ethiopia
A toolbox for teachers and trainers

### TOOLBOXES

<table>
<thead>
<tr>
<th>Toolbox Task</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>DA VINCI SCRIBBLES</td>
<td>14</td>
</tr>
<tr>
<td>2</td>
<td>LEARNING COMPASS 2030</td>
<td>15</td>
</tr>
<tr>
<td>3</td>
<td>GREENING TVET</td>
<td>14</td>
</tr>
<tr>
<td>4</td>
<td>ENTRECOMP &amp; GREENCOMP</td>
<td>17</td>
</tr>
<tr>
<td>5</td>
<td>HOW DO YOU PERCEIVE THE PLANNING IN YOUR PROFESSION?</td>
<td>18</td>
</tr>
<tr>
<td>6</td>
<td>ATTRACT ATTENTION</td>
<td>19</td>
</tr>
<tr>
<td>7</td>
<td>LEARNING ENVIRONMENTS BEYOND THE CLASSROOM</td>
<td>20</td>
</tr>
<tr>
<td>8</td>
<td>ASK YOUR STUDENTS HOW TO USE AVAILABLE RESOURCES</td>
<td>21</td>
</tr>
<tr>
<td>9</td>
<td>ASK YOUR COLLEAGUES HOW TO USE AVAILABLE RESOURCES</td>
<td>22</td>
</tr>
<tr>
<td>10</td>
<td>THINK ABOUT YOUR TEACHING ACTIVITIES</td>
<td>23</td>
</tr>
<tr>
<td>11</td>
<td>RANDOM WORD</td>
<td>24</td>
</tr>
<tr>
<td>12</td>
<td>ENGAGE STUDENTS AND EXPLORE</td>
<td>25</td>
</tr>
<tr>
<td>13</td>
<td>GAMIFY YOUR CLASSROOM</td>
<td>26</td>
</tr>
<tr>
<td>14</td>
<td>STUDENTS ACTIVITY</td>
<td>27</td>
</tr>
<tr>
<td>15</td>
<td>SUSTAINABLE BUILDING DESIGN</td>
<td>28</td>
</tr>
<tr>
<td>16</td>
<td>SUSTAINABLE AGRICULTURE BUSINESS PLAN</td>
<td>29</td>
</tr>
<tr>
<td>17</td>
<td>MAIN REASONS FOR ASSESSMENT</td>
<td>30</td>
</tr>
<tr>
<td>18</td>
<td>ASSESS TO ASSIST</td>
<td>31</td>
</tr>
<tr>
<td>19</td>
<td>CONSIDER A PROJECT ASSIGNMENT AS AN ASSESSMENT PRACTICE</td>
<td>33</td>
</tr>
<tr>
<td>20</td>
<td>ACTI</td>
<td>34</td>
</tr>
<tr>
<td>21</td>
<td>THINK ABOUT THIS</td>
<td>35</td>
</tr>
<tr>
<td>22</td>
<td>ENTREPRENEURIAL NETWORKS</td>
<td>36</td>
</tr>
</tbody>
</table>

### ABBREVIATIONS AND ACRONYMS

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>FHJ</td>
<td>FH Joanneum University of Applied Sciences</td>
<td></td>
</tr>
<tr>
<td>GIZ</td>
<td>German Agency for International Cooperation</td>
<td></td>
</tr>
<tr>
<td>GTVET</td>
<td>Greening TVET</td>
<td></td>
</tr>
<tr>
<td>LKDF</td>
<td>Learning and Knowledge Development Facility</td>
<td></td>
</tr>
<tr>
<td>NCDIEL</td>
<td>National Centre for Development of Innovation and Entrepreneurial Learning</td>
<td></td>
</tr>
<tr>
<td>TVET</td>
<td>Technical and Vocational Education and Training</td>
<td></td>
</tr>
<tr>
<td>UN</td>
<td>United Nations</td>
<td></td>
</tr>
<tr>
<td>UNESCO</td>
<td>United Nations Educational, Scientific and Cultural Organization</td>
<td></td>
</tr>
<tr>
<td>UNESCO-UNEVOC</td>
<td>International Centre for Technical and Vocational Education and Training of the United Nations Educational, Scientific and Cultural Organization</td>
<td></td>
</tr>
<tr>
<td>UNIDO</td>
<td>United Nations Industrial Development Organization</td>
<td></td>
</tr>
</tbody>
</table>
I. BACKGROUND AND CONTEXT

The International Centre for Technical and Vocational Education and Training of the United Nations Educational, Scientific and Cultural Organization (UNESCO-UNEVOC), undertakes a global initiative for strengthening the resilience of education and training stakeholders for a just and sustainable transition, which is implemented with the support of the German Agency for International Cooperation (GIZ). The project focuses on low- to lower-middle-income countries, paying special attention to countries in Africa and Small Island Developing States.

For that purpose, the United Nations Industrial Development Organization (UNIDO) through the Learning and Knowledge Development Facility (LKDF) aims to implement a series of activities to enhance the capacity of Technical and Vocational Education and Training (TVET) institutions for a just and green transition through a technical assistance package.

For this purpose, UNIDO contracted the National Centre for Development of Innovation and Entrepreneurial Learning (NCDIEL) and FH Joanneum University of Applied Sciences to develop a "Toolbox for the Provision of Capacity Building for TVET Teachers and Trainers" with a pilot intervention at the Selam Technical and Vocational College in Ethiopia, an accredited college by Addis Ababa TVET Agency.

UNIDO, through the LKDF, aims to implement a series of activities to enhance the capacity of Technical and Vocational Education and Training (TVET) institutions for a just and green transition through a technical assistance package.

II. KNOWING THE ESSENCE OF ENTREPRENEURIAL AND GREEN RELATED EDUCATION

II.1 Goals and Methodological Background

This document presents a toolbox for TVET teaching staff with selected practical resources from a developed learning module on green and entrepreneurial learning. The aim of the toolbox is to promote enhancement of resilience in young people, with a focus on fostering inclusive and sustainable development.

Prior to the development of the learning materials, a needs assessment was conducted within the Selam TVET as a selected institution for pilot intervention in Ethiopia. The methodological steps that led to this toolbox and could be applied in various institutions are listed below.

1. Needs assessment
   i. Desk review on green and entrepreneurial learning
   ii. Self-assessment questionnaire for teaching staff (piloted in Selam TVET)
   iii. Meeting/interview with top management (piloted in Selam TVET)
   iv. Evaluation and recommendations for intervention

2. Development of practical resources
   i. Desk review of relevant literature and on-going courses/study programmes (focus on Selam TVET)
   ii. Learning module: Green and entrepreneurial learning
   iii. Toolbox: Practical staff development resources

The assessment highlighted the need for training and a comprehensive learning module tailored to address the requirements of the TVET teaching personnel.

Based on the results of the assessment, as well as the conducted desk review, several topics were identified that will contribute to build capacities of the teaching staff, thus enabling them to foster entrepreneurial, innovative and sustainable mindset among their students.
II.2 Selecting Effective Practices: Workshop Findings

To gain a comprehensive understanding of the requirements of the teaching staff and determine which topics would be the most impactful, representatives of the implementation team conducted an on-site workshop with the Selam’s teaching staff.

The participants were acquainted to the identified areas for delivering green and entrepreneurial learning according to the needs assessment. Afterwards, they were divided into three groups, with each group assigned to discuss four main topics related to those areas and their relevance for development of an effective and highly needed learning module.

![Expert-led workshop on “Green Skills for Teachers in TVET” at Selam Technical and Vocational College, Ethiopia](fig1)

![Expert-led workshop on “Green Skills for Teachers in TVET” at Selam Technical and Vocational College, Ethiopia](fig2)

During the workshop, the teachers were encouraged to share their opinions on the following suggested areas for improvement:
- Green & Entrepreneurial knowledge and understanding
- Entrepreneurial and Green Competences
- Planning green & entrepreneurial learning environments
- Teaching and training methods
- Assessment and self-assessment
- Collaboration with other educators and stakeholders

The key comments and conclusions from the workshop are presented below and structured according to the questions for discussion.

**Which of the proposed topics you find most useful?**
- **Group 1:** All of them are equally important.
- **Group 2:** (1, 2) Learning about the green skills and understanding them is key for their utilisation. (3) Planning green and entrepreneurial learning environment. (4) Teaching and training methods are really needed for teachers to develop and implement high level teaching. (5) It is very important to understand the efficiency and the impact.
- **Group 3:** (3) Planning green and entrepreneurial learning environment is very important for high quality teaching.

**Do you believe that some of the proposed topics should be left out? Why?**
None of the participants believes that some topic is not important. Although, in group 3 it was emphasised that as teachers and educators, they already are familiar with the teaching methods.

**Which competences should be developed and/or strengthened for you to be able to deliver quality green & entrepreneurship education?**
- **Group 1:** The equal relevance of all topics was mentioned.
- **Group 2:** (4) Teaching and training methods and (5) assessment and self-assessment are the most needed for teachers.
- **Group 3:** (1, 2, 3) Teachers need more understanding in these topics to be able to teach them.

**Please propose up to 5 additional topics that you find useful.**
In general, the proposed topics are related to: benefits and importance of TVET benefits for the learners and the society, time management, team communication, basic computer skills and life skills. This question might have been considered generally, not only for green and entrepreneurial learning.
By gathering feedback directly from the teachers, the implementation team could refine the contents of the learning module and ensure that this toolbox meets the needs of the teaching staff.

The general conclusion is that the teachers recognise the importance of green and entrepreneurial learning and are willing to expand their knowledge in these areas. They consider that all topics are highly relevant, but they need to understand better the concept of green and entrepreneurial learning and to plan the learning environment in order to effectively transfer this knowledge to their students. Therefore, this toolbox contains several practical resources that will help teachers to upgrade their own knowledge and build their capacities. Moreover, it offers examples of key methods and tools that can be used to teach and assess green and entrepreneurial learning effectively.

By providing these resources and tools, the toolbox aims to equip teachers with the necessary knowledge and skills to integrate green and entrepreneurial learning into their teaching practices which will empower students to become responsible and environmentally conscious citizens, contributing to the growth of the economy. By utilising the learning module in combination with this toolbox, teachers can gain a deeper understanding of the concepts and best practices related to green and entrepreneurial learning. Eventually, this will enable them to provide a higher quality of education to their students, by incorporating innovative and sustainable practices into their teaching practices.

III. TOOLBOX FOR DELIVERING GREEN AND ENTREPRENEURIAL LEARNING

This toolbox will help TVET teachers to understand better the concept of green and entrepreneurial learning and to implement its key elements into their teaching.

The practices presented in the toolbox have been selected according to the needs of the teaching staff at Selam TVET, but they could be applied to various range of institutions.

It is worth mentioning that this toolbox contains only selected tasks and exercises, and therefore it is highly recommended that TVET teachers follow the learning module on green and entrepreneurial learning, which has been developed to build their capacities in these areas.
TOOLBOX TASK 1
DA VINCI SCRIBBLES

Preparation
None.

1. Sit down at pad with a soft pencil in your hand.
2. Close your eyes and start to scribble. Not the scratchy scribble of a child - imagine that you are an artist, sketching in an outline of something. Only don't direct the pencil, just let it flow across the page.
3. When you feel you’ve scribbled enough, open your eyes.
4. Look at the image you have generated.

👍 What does it make you think of?
👍 What does it remind you of?
👍 How might you use it in your problem?
👍 What characteristics of it are appropriate to a solution?
👍 What sort of new product does it imply (or could you use to deal with it).
👍 Be imaginative - let your mind wander over just what this scribble might.

Feedback
Leonardo used this method to come up with new inventions, which considering his track record makes it quite a promising technique. If you have problems seeing anything in your picture, think of modern art - what title might you give your artwork in a gallery? Look for suggestions in the shapes and sub-patterns.

Outcome
This technique is marginally better for coming up with new ideas than solving problems, but it is quite often a source of a solution.

Variations
In a group you could each generate your own picture, or have a single person draw on a flipchart, then all of the group can individually think about what it implies before sharing their thoughts. Other old techniques this is reminiscent of are seeing pictures in cloud formations and in an open fire. Given appropriate surroundings, either of these will make an effective variant.

TOOLBOX TASK 2
WATCH A VIDEO ABOUT THE LEARNING COMPASS 2030

Preparation
None.

To get a sense of where entrepreneurial learning fits into the bigger educational picture, watch this brief video on the Learning Compass 2030 produced by the Organization for Economic Cooperation and Development.

Watch video: Learning Compass 2030

Then reflect on the following question:

👍 What importance is attached to creating value, which is at the heart of entrepreneurial learning?
TOOLBOX TASK 3
GREENING TVET

Preparation
None.

Watch a video about Greening TVET developed by UNESCO

Watch video: Greening TVET

Then reflect on the following question:

What are the key messages you take from the video that makes you think differently about your practice?

(You could think of the impact on your practice from different perspectives such as yourself, your teaching, your students, your subject, your colleagues, your experiences, your working methods).

TOOLBOX TASK 4
ENTRECOMP & GREENCOMP

Preparation
Go through the second section of the learning module “Green and Entrepreneurial Learning: Learning module for TVET teachers” titled “EntreComp & GreenComp: Key to green and entrepreneurial learning”, where the key elements of entrepreneurial and green competences are explained. For deeper understanding visit: EntreComp: The Entrepreneurship Competence Framework and GreenComp: The European Sustainability Competence Framework.

Now that you are familiar with EntreComp & GreenComp...

1. Take a few minutes to reflect on your knowledge of these competences.

Write down your thoughts on whether you believe you are familiar or unfamiliar with these competences.

2. Compare the Green Competences and EntreComp frameworks to identify any similarities.

Write down your observations and consider how you might integrate these shared competences into your teaching.
TOOLBOX TASK 5
HOW DO YOU PERCEIVE THE PLANNING IN YOUR PROFESSION?

Preparation
None.

Write down the first words that come to your mind when you read the questions:

If you think of your lesson plans in the next week or couple of weeks, are there opportunities for engaging your students and encouraging them to show initiative?

Do you follow the interests and progress of your students when you plan the upcoming lessons and teaching activities?

...or you mostly follow the given curriculum?

TOOLBOX TASK 6
ATTRACT ATTENTION

Preparation
None.

The instinct to believe that students will listen when something important is to be shared is usually wrong. For example, it can be confirmed without any doubt that the pre-flight safety announcements are of a high importance, but many of the passengers do not listen carefully to the instructions.

Plan to attract attention

- Share local news stories
- Raise a topical question or issue in the community
- Share an extract from a letter about a product/service that needs improving
- Bring some objects with you that are relevant for your course
- Bring recycled or reused materials
- Include video or audio materials
- Share a short story or a poem to foster green & entrepreneurial learning
- Set a scenario “What would you do if...?”

Take a few minutes to think if you implement some methods in your teaching that make the lessons interesting and creative.

Do you practice some ways to make sure that your students will be aware of the importance of the topic and will be interested to follow you?

- Get inspired by the contents in the learning module
- Expand the list
- Share good practices with your colleagues.
Nowadays, learning extends beyond the classroom and encompasses a diverse range of public spaces, including museums, galleries, laboratories, and virtual environments, which significantly contributes to fostering innovative, entrepreneurial and sustainable mindset.

**Write down ideas** on the following topics:

- Design a flexible classroom environment to suit the purpose of the learning, such as: modifying seating arrangements to facilitate teamwork, individual coaching, or practical tasks.
- Design a flexible classroom environment to suit the purpose of the learning, such as: modifying seating arrangements to facilitate teamwork, individual coaching, or practical tasks.

**TOOLBOX TASK 8**

**ASK YOUR STUDENTS HOW TO USE AVAILABLE RESOURCES**

**Preparation**

None.

Make an exercise with your students and ask them to assess the current usage of the learning space, whether it is your classroom or the whole TVET, specifically looking for areas that could be better utilized for the purposes of the subject that you are teaching.

**General guideline how to conduct the exercise**

1. Introduce the exercise to the students explaining that the goal is to identify areas that could be improved with the available resources. (5 minutes)
2. Divide students into groups of 4-5 and ask them to write down 3 ideas per group (15-20 minutes).
3. Each group presents the ideas briefly, while you are writing them on a whiteboard (15-20 minutes).
4. Ask each student to vote for the best idea while you note them down on the whiteboard (10-15 minutes).

**Additional suggestions**

- Be creative and organise the exercise to suit your subject, i.e., what students need to understand the subject better.
- The duration of each sub-activity depends on the size of the class, involvement and your teaching plan.
- Try to set some budget constraints to motivate students to take the financial aspect into account, but also to try to make the most out of the existing capacities.
TOOLBOX TASK 9
ASK YOUR COLLEAGUES HOW TO USE AVAILABLE RESOURCES

Preparation

None.

A well-designed environment inspires and empowers students to learn and reach their full potential.

Initiate a simple brainstorming activity with your colleagues on how to improve your teaching and learning environment.

Write down your initial ideas:

Think about and exchange opinions on how to use different physical spaces or online learning spaces/tool, and how to use time differently?

Forget about: “I don’t have money to do anything about my learning spaces”

Instead of that: Rethink, redesign and think of affordable but impactful idea.

TOOLBOX TASK 10
THINK ABOUT YOUR TEACHING ACTIVITIES

Preparation

If needed, remind yourself of the EntreComp and GreenComp.

Can you show that green and entrepreneurial learning is already part of your teaching?

Write down how a simple activity you have used before contributes to development of EntreComp and/or GreenComp.

Share experience with your colleagues.

You might even encourage your students to design a creative poster to share the good practice.

- For example, you might have encouraged discussion on current challenges and environmental issues among your students.
- Or you have shared a recent success story on green and entrepreneurial endeavour.
- Also, you might have assigned a challenge-based task to foster creativity, teamwork and systems thinking.
TOOLBOX TASK 11
RANDOM WORD

Preparation

None.

1. Choose a word at random.
2. Make as many associations with that word as you are able.
3. Relate the associations back to your problem.

To choose the word you can use a book or a dictionary and allow them to fall open at random.

The word that you choose will usually be a noun, but need not be. It will usually be emotive, but need not be. It will certainly bring to mind a range of images and associations.

Feedback

Random word becomes a favourite for a reason. It works and works well. It is easy to explain to others and we would almost always use it as an early demonstrator of a creativity technique. Some people want to choose a word that is relevant to their problem. Don't do this. Use a random word - it will turn out to be appropriate.

Outcome

You will find that alone or in groups you have no trouble engaging with this technique. It will produce results.

Variations

If working with a group you can make a show of the randomness by getting someone else to choose the word or call out a number to select from a list. An alternative source of a random word is to input word-like nonsense into a PC spell checker, then see what emerges.

TOOLBOX TASK 12
ENGAGE STUDENTS AND EXPLORE

Preparation

None.

General guideline how to conduct the exercise:

1. Spend a few minutes sitting outdoors observing the world (you can do it within your classroom/learning facility or to use your breaktime).
2. Try to do this each day for a week at the same time.
3. Take a different theme each day (e.g., colour, light, noise, temperature, happy, sad, wonder).
4. Keep a note of what you see – both you and your students.
5. What entrepreneurial opportunities did you spot?
6. After a week, initiate discussion among students on the opportunities they have spot and which one of them they find worth taking.
TOOLBOX TASK 13
GAMIFY YOUR CLASSROOM

Preparation

None.

An Erasmus+ project titled Promoting Green Skills Through Games (November 2017 – December 2019) aimed to utilize digital technologies as a means of non-formal learning about the climate crisis. Within the project, a report was compiled with the aim to identify available formal and non-formal education and training opportunities, challenges, educational needs, and recommendations.

The report contains inspirative practices on game-based learning approaches and methodologies for teaching sustainability.

1. Go through the report "Promoting Green Skills Through Games: State of the Art".
2. Reflect on the findings and think if there are any insights or ideas that you find particularly inspiring or relevant to your context.
3. Brainstorm ways to incorporate games and game-based learning into your teaching of environmental and sustainability issues.
4. Write your ideas, share them with your colleagues and ask for feedback and suggestions.

TOOLBOX TASK 14
STUDENTS ACTIVITY

Preparation

None.

General guideline how to conduct the exercise:

1. Find some simple everyday objects that you could use to engage students to think innovatively.
2. Make a collection of these objects and, once a week, ask your students to brainstorm their ideas as to alternative uses e.g., a water bottle, plastic lid, peg, sticky note.
3. Write down students’ ideas on a board or flipchart.
4. Repeat the activity each week with different objects to keep students engaged.
TOOLBOX TASK 15
SUSTAINABLE BUILDING DESIGN

Preparation

None.

Teach students about sustainable building design and how to apply green principles in their building designs.

1. Introduce the concept of sustainable building design and the necessity to create eco-friendly, energy-efficient buildings.
2. Provide a list of sustainable building design principles to your students (e.g., using renewable energy sources, using recycled materials).
3. Ask students to research a building they admire and find out as much information as possible about the building (location, design, construction materials).
4. Instruct students to apply the sustainable building design principles they learned to that building resulting with a final drawing or model.
5. Ask students to calculate the estimated cost of constructing the sustainable building design they created, taking into account the cost of materials, labour, etc.
6. Final presentation in front of the class.

To implement this exercise, you will need:
- Access to the internet
- Drawing paper and pencils
- Ruler and calculator
- A list of sustainable building design principles

By implementing this practice, students will learn about sustainable building design principles and how to apply them in their building designs. They will also develop critical thinking and problem-solving skills by calculating the estimated cost of their designs, and will improve their communication and collaboration skills.

Modify the exercise to fit your needs and the elements of the subject(s) that you teach.

TOOLBOX TASK 16
SUSTAINABLE AGRICULTURE BUSINESS PLAN

Preparation

None.

Teach students how to develop a business plan for sustainable agriculture venture.

1. Introduce the concept of sustainable agriculture to your students.
2. Provide a list of sustainable agriculture practices to your students (e.g., water conservation, organic farming).
3. Ask students to research a crop they would like to grow using sustainable agriculture practices (growing requirements, potential market demand, etc.).
4. Instruct students to develop a business plan for their sustainable agriculture venture.
5. Final presentation in front of the class.

To implement this exercise, you will need:
- Access to the internet
- Drawing paper and pencils
- Ruler and calculator
- A list of sustainable agriculture practices
- A list of business plan components

By implementing this practice, students will learn about sustainable agriculture practices and how to develop a business plan for a sustainable agriculture venture. They will also develop critical thinking and problem-solving skills and will improve their communication and collaboration skills.

Modify the exercise to fit your needs and the elements of the subject(s) that you teach.
TOOLBOX TASK 17
MAIN REASONS FOR ASSESSMENT

Preparation
Go through the fifth section of the learning module "Green and Entrepreneurial Learning: Learning module for TVET teachers" titled "Assessment practices and tools".

As a teacher you surely are familiar with the main reasons for assessment.

But, do you consider all three reasons for assessment – assessment of, for and as learning – when preparing and conducting the assessment?

Do you encourage students to assess their own progress?

TOOLBOX TASK 18
ASSESS TO ASSIST

Preparation
Go through the fifth section of the learning module "Green and Entrepreneurial Learning: Learning module for TVET teachers" titled "Assessment practices and tools".

Review this list which is offered as guidance and think of ways how to implement it into your assessment.

### Implementation: assessment types
- Can the student write and follow a business plan as direct by the teacher?
- Can the student respond positively to short term and ever-changing venture environments / do they come up with new ideas in response?
- Can the student come up with a good idea using the theories they have been taught?
- Can the student come up with many varied ideas that respond to changing circumstances?
- Does the student’s solution match the expectation of the test or exam?
- Does the student’s solution surprise through new insights and alternatives?
- Does the student respond to the problem identified by the educator?
- Does the student identify new problems and opportunities for themselves?
- Is the solution correct, finite and complete in the view of the educator / evaluator?
- Does the solution offer new insights and potentially challenge accepted understandings?
- Does the student adhere to the use of accepted theories and practices when undertaking an assignment?
- Can the student experiment and self-define theories and practices that they have discovered, which may support or argue against their findings?
- Does the student follow the rules carefully when developing a solution?
- Does the student compare their solutions to rules and adapt accordingly? Ideas first, rules later?
- Does the solution require significant resources? A bank loan for example?
- Is the solution based on what the student has to hand in terms of resources and contacts?
- Is the assessment based on past understandings and texts?
- Does the assessment look to support new understandings – links and connections that the student has made for themselves?
- Does the assessment look to past events for guidance?
- Does the assessment consider future and unknown contexts that are ‘best guesses’?
- Does the leadership style in the task (teamwork) require decision-making by the manager?
- Does the leadership style (teamwork) require the management of an inclusive decision-making process?

### Innovation: assessment types
- Can the student think like an entrepreneur?
- Do they come up with many varied ideas that respond to changing circumstances?
- Can the student come up with a good idea using the theories they have been taught?
- Can the student come up with many varied ideas that respond to changing circumstances?
- Does the student respond to the problem identified by the educator?
- Does the student identify new problems and opportunities for themselves?
- Is the solution correct, finite and complete in the view of the educator / evaluator?
- Does the solution offer new insights and potentially challenge accepted understandings?
- Does the student adhere to the use of accepted theories and practices when undertaking an assignment?
- Can the student experiment and self-define theories and practices that they have discovered, which may support or argue against their findings?
- Does the student follow the rules carefully when developing a solution?
- Does the student compare their solutions to rules and adapt accordingly? Ideas first, rules later?
- Does the solution require significant resources? A bank loan for example?
- Is the solution based on what the student has to hand in terms of resources and contacts?
- Is the assessment based on past understandings and texts?
- Does the assessment look to support new understandings – links and connections that the student has made for themselves?
- Does the assessment look to past events for guidance?
- Does the assessment consider future and unknown contexts that are ‘best guesses’?
- Does the leadership style in the task (teamwork) require decision-making by the manager?
- Does the leadership style (teamwork) require the management of an inclusive decision-making process?
TOOLBOX TASK 18
ASSESS TO ASSIST

Try to extend the list or make up your own.
Share with your colleagues.

<table>
<thead>
<tr>
<th>Implementation: assessment types</th>
<th>Innovation: assessment types</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

TOOLBOX TASK 19
CONSIDER A PROJECT ASSIGNMENT AS AN ASSESSMENT PRACTICE

Preparation
None.

1. Ask your students to develop a new product and during the process of developing their idea, you or others might provide feedback based on the following questions:
   - What are the strengths and weaknesses of the idea?
   - If we ask other students to make a suggestion to improve the idea, what might they say?
   - How many possible barriers are there to overcome? How much maintenance is needed?
   - How will you test the price?
   - Will you have a particular event to launch the product or service?

2. Finalise the project assignment with a presentation of the new product/service and focus on skills in communicating the idea, engagement with the audience, time management and so on.

3. Give feedback on the teamwork skills, in areas such as cooperation, planning, and management of resources. Comment the involvement of students.

4. If the final presentation is not on a satisfactory level, you might decide to ask students to resubmit. However, this is why it is important to follow the progress of students’ ideas and provide formative assessment.
**TOOLBOX TASK 20**

**ACT!**

**Preparation**

Go through the fifth section of the learning module “Green and Entrepreneurial Learning: Learning module for TVET teachers” titled “Assessment practices and tools”.

**Implement one new assessment approach** in your teaching – either face to face or online – something you have not used before.

**Reflect** on the following questions:

- Which competences did you assess?
- How did you assess them?
- What worked well?
- What would you do differently next time?

Get familiar with the tools through the learning module and find the most suitable for you:

- EntreAssess tool
- MTEE tool
- HEInnovate tool
- Greenovet tool

---

**TOOLBOX TASK 21**

**THINK ABOUT THIS**

**Preparation**

None.

1. Take a few moments and think carefully about these questions:
   - Which of the figures best sum up the kind of feedback that happens in your classroom (A, B or C)?
   - Which do you think best suits green and entrepreneurial learning?
   - Which element is most difficult to include in the assessment? Why?

2. Write down your opinions and answers on the questions. Make sure that you consider the current situation in your classroom, not the desired one.

3. Make a brief exercise with your students and ask them to provide their opinion on the kind of feedback they receive in your classroom.

4. Compare your own and your students’ opinions.

5. Gather together with your colleagues and discuss the topic. You can get many valuable suggestions to improve your teaching, but also to share your experience with your peers.
TOOLBOX TASK 22
ENTREPRENEURIAL NETWORKS

Preparation
Go through the last sixth section of the learning module “Green and Entrepreneurial Learning: Learning module for TVET teachers” titled “Professional Learning and Development”.

Are you associated with any organisation or professional bodies which provide guidance to support your work?

Examples from the learning module:
- PietE (Partnership for Initial Entrepreneurship Teacher Education)
- Network for Teaching Entrepreneurship
- European Entrepreneurship Education Network

Yes? Reflect on the benefits that this has already brought and how you might share these within your context.

Not yet? Take the initiative and join one or more of these organisations and begin to build up your own network.

Share your reflections with your colleagues.
References


[27] "Problem-Based Learning" [Online]. Available: https://teaching.cornell.edu/teaching-resources/engaging-students/problem-based-learning


[38] "Problem-Based Learning" [Online]. Available: https://teaching.cornell.edu/teaching-resources/engaging-students/problem-based-learning


[51] Paryono, "The importance of TVET and its contribution to sustainable development," 2017

Provision of Capacity Building on Green and Entrepreneurial Learning

A toolbox for teachers and trainers