

Training of

Up-to-date Competences for Teachers in Multifunctional Agriculture

MODULE 2: Innovative Teacher

Activity Handout 1

Unit title	ICE BREAKER
No. of Activity	Duration: 20 minutes
Learning outcomes	To challenge preconceptions about traditional and innovative teaching methods.
Aim of activity	Common myths or misconceptions about teaching and learning.
Name of activity	Teaching MythBusters
Material Required	Pens, Paper, PowerPoint Presentation, Flipchart and Markers, Laptop and Projector.
Step-by-step instructions of activity	<p>The facilitator provides a list of common myths or misconceptions about teaching and learning.</p> <p>Divide participants into small groups and give each group a myth to "bust" using evidence, experience, or creative thinking.</p> <p>Groups then present their findings, leading into a discussion about how innovative methods can address or counter these myths.</p>
References/ Sources	Available in the Module 2

Activity Handout 2

Unit title	FLIPPED CLASSROOM
No. of Activity	Duration: 20 minutes
Learning outcomes	<ul style="list-style-type: none"> - Understand the concept and rationale behind the flipped classroom model. - Identify best practices for creating pre-class instructional materials and structuring in-class activities. - Design and produce instructional videos, readings, and interactive content for learners to engage with before class.

Aim of activity	To facilitate in-class activities that reinforce and deepen students' understanding of the pre-class material.
Name of activity	Flipped classroom model in agriculture education
Material Required	Pens, Paper, PowerPoint Presentation, Flipchart and Markers, Laptop and Projector.
Step-by-step instructions of activity	<p>Pre-class activities (before the classroom session)</p> <ol style="list-style-type: none"> 1. Watch introductory videos on multifunctional agriculture, including definitions, key concepts, and examples of multifunctional activities (e.g., agrotourism, care farming, and value-added products). 2. Read selected articles and textbook chapters on the benefits and challenges of multifunctional agricultural practices. <p>In-class activities (classroom session)</p> <p>Teachers will facilitate the discussion and provide clarifications.</p> <ol style="list-style-type: none"> 1. A brief recap of key points from the pre-class materials. Address any common questions or misconceptions. 2. Group activity - case studies: <ul style="list-style-type: none"> - Divide participants into small groups and assign each group a different case study of a multifunctional agricultural activity. Groups analyse their case study, discussing the multifunctional activities, benefits, challenges, and contribution to rural development. - Prepare a brief presentation of their analysis. 3. Group presentations and peer review: <ul style="list-style-type: none"> -Each group presents their case study analysis to the class. After each presentation, the rest of the class asks questions and provides feedback. 4. Class reflection and discussion: <ul style="list-style-type: none"> -Open the floor for participants to reflect on and discuss how multifunctional agriculture can be applied in their contexts.
References/ Sources	Available in the Module 2

Activity Handout 3

Unit title	GAMIFICATION
No. of Activity	Duration: 20 minutes
Learning outcomes	<ul style="list-style-type: none"> - Understand the various aspects of multifunctional agriculture, such as ecological sustainability, economic viability, and social benefits. - Learn how to apply multifunctional agriculture concepts in different teaching scenarios.
Aim of activity	To enhance teachers' understanding of multifunctional agriculture and its applications through an engaging, competitive, and collaborative gamified experience.
Name of activity	Gamification educational activity on multifunctional agriculture
Material Required	Pens, Paper, PowerPoint Presentation, Flipchart and Markers, Laptop and Projector.
Step-by-step instructions of activity	<p>Gamified experience where participants progress through levels by completing challenges related to multifunctional agriculture. Each level corresponds to a different aspect of multifunctional agriculture, and participants earn points based on their performance.</p> <p>Level 1: Economic viability. Challenge:</p> <p>Participants are given a case study on a farm that uses multifunctional agriculture principles. They must identify economic strategies that the farm can use to enhance profitability while maintaining sustainability.</p> <p>Points awarded: 20 points for identifying key strategies and explaining their rationale.</p> <p>Level 2: Social and Cultural Benefits. Challenge:</p> <p>Participants work in small groups to develop a plan for integrating social and cultural benefits into a multifunctional agricultural project. They present their ideas to the group.</p> <p>Points awarded: 30 points for creativity, feasibility, and alignment with multifunctional agriculture principles.</p> <p>Level 3: Environmental Stewardship. Challenge:</p> <p>Participants participate in a virtual simulation where they must make decisions to manage a farm sustainably, considering factors like biodiversity, water use, and soil health.</p> <p>Points awarded: 40 points for maintaining a balanced ecosystem while achieving farm goals.</p>

	<p>Bonus Level: Innovation and Future Trends. Challenge:</p> <p>Participants brainstorm and pitch an innovative idea that leverages multifunctional agriculture to address a current global challenge (e.g., climate change, food security).</p> <p>Points awarded: 50 points for the most innovative and practical idea.</p> <p>Reflection and Debrief:</p> <p>Participants reflect on the activity, discussing what they learned about multifunctional agriculture and how gamification enhanced their understanding.</p> <p>Facilitators guide a discussion on how the principles of multifunctional agriculture can be applied in their teaching.</p> <p>Participants provide feedback on the gamified experience and suggest improvements.</p>
References/ Sources	Available in the Module 2

Activity Handout / Activity Sheet 4

Unit title	COLLABORATIVE LEARNING
No. of Activity	Duration: 20 minutes
Learning outcomes	<ul style="list-style-type: none"> - Understand the benefits of collaborative learning and the theories that support its effectiveness. - Identify different collaborative learning strategies and techniques that can be applied in the classroom. - Promote group work and collaborative activities that promote communication, teamwork, and shared problem-solving.
Aim of activity	<p>Designing a multifunctional agriculture farm through collaborative learning.</p> <p>To collaboratively design a multifunctional agriculture plan, incorporating agritourism, farm shops, nature and landscape management, renewable energy production, care farming, and farm education etc</p>
Name of activity	Collaborative learning in agricultural education
Material Required	Pens, Paper, PowerPoint Presentation, Flipchart and Markers, Laptop and Projector.

Step-by-step instructions of activity	<p>Collaborative workshop - designing a multifunctional farm: Design a hypothetical multifunctional farm, incorporating at least three activities (e.g., organic farming, agrotourism, and a farm-to-table restaurant)</p> <ol style="list-style-type: none"> 1. Divide participants into small groups of 4-5 members. 2. Assign specific roles within each group, such as project manager, researcher, and farmer, to ensure members contribute to the project. 3. Groups research and plan multifunctional agriculture activities (e.g., agritourism, care farming, farm shop) based on resources. 4. Groups create a multifunctional farm using diagrams, sketches, and written descriptions. 5. Each group presents their multifunctional agriculture activities plan to the class. Peers and instructors provide constructive feedback on the designs. 6. Groups reflect on their collaboration process, discussing what worked well, the challenges faced, and how they can improve future collaborative efforts.
References/ Sources	Available in the Module 2

Activity Handout 5

Unit title	INQUIRY-BASED LEARNING
No. of Activity:	Duration: 20 minutes
Learning outcomes	<ul style="list-style-type: none"> - Understand the principles of inquiry-based learning. - Identify the stages of the inquiry process, from asking questions to conducting research and presenting findings. - Design and facilitate inquiry-based learning activities that encourage learners to investigate, experiment, and draw conclusions. - Guide learners in developing research skills, including information literacy, data analysis, and critical thinking.
Aim of activity	To explore multifunctional agricultural practices, including environmental, economic, and social benefits. And develop critical thinking and research skills by investigating real-world examples of multifunctional agriculture.
Name of activity	Inquiry-based learning in agriculture education
Material Required	Pens, Paper, PowerPoint Presentation, Flipchart and Markers, Laptop and Projector.

Step-by-step instructions of activity

1. Present the central inquiry question: “How can multifunctional agriculture contribute to sustainable rural development in our region?”. Facilitate a brief discussion to gather prior knowledge and thoughts.
2. Introduce the concept of multifunctional agriculture.
3. Divide participants into small groups and assign them a specific aspect of multifunctional agriculture to investigate (e.g., agroecology, agritourism, renewable energy on farms, care farming etc.).
4. Instruct each group to explore their topic, focusing on the principles, practices, challenges, and opportunities involved, including environmental, economic, and social impacts.
5. Groups to collaborate on their research, sharing findings and discussing their significance.
6. Each group prepares a summary of their findings to share with the class, highlighting key points and implications for sustainable rural development.
7. Participants to ask questions and engage in discussions after each presentation.
8. Class-wide discussion to compare the different aspects of multifunctional agriculture presented.

References/Sources

Available in the Module 2