Workshop Objectives

- Introduce current STEM pedagogies and curriculum ideas for better preparing science and agriculture teachers in Malawi.
- Discuss opportunities for course delivery through Open Distance Learning (ODL) for increased accessibility.
What do you expect to gain?

- Experience sharing innovative ways of science education in a resource constrained environment
- Understand STEM as a concept
- Knowledge on the STEM program
- Knowledge and skills on how to develop and establish a STEM project at LUANAR
- How LUANAR can prepare a diploma course for secondary schools
- Institutional support on the idea of establishing the project
What do you expect to gain? (cont.)

- How to assess student’s learning in STEM courses
- Application of educational technology in STEM
- How to organize STEM in tertiary institutions
- Learn about STEM and InnovATE
- Know how to contribute to the program by the end of the workshop
- To learn from other participants
- Knowledge and skills
- Innovative ways of training teachers
What to share with others in the workshop?

- How to go about putting up curriculum for the STEM program
- Teacher education experiences
- Listening and learning
- Introduction and organization of ODL in tertiary institutions
- Share how knowledge is imparted to students
- Personal experiences in training of secondary school teachers
Critical Skills

- social skills
- self-control
- positive self-concept
- communication
- higher-order thinking skills
Top Takeaways

- Concept of STEM
- Place based STEM learning/education
- Hybrid knowledge – integrating local with scientific knowledge
- The 5-E lessons
- Develop pedagogies based on indigenous knowledge in science
- Use of local resources for STEM

- Gender issues affecting teaching and learning in schools
- Need for gender sensitive strategies
- Gender issues in schools – confusing!
- Gender not only considering one sex, only to minimize differences
Top Takeaways

- Lesson planning – keys to successful learning
- Learning and curriculum development
- Preparing teachers for STEM
- Making agriculture part of the STEM education
- Students learn science better if they are engaged in hands on
- Experiential learning is vital in agricultural training and education
- The difference between entrepreneurship and entrepreneurship education
Top Takeaways

- InnovATE and the question of entrepreneurship in STEM
- InnovATE as possible option for resources
- InnovATE’s approach learn-design-train
- The aspect of collaboration in order to achieve meaningful change
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