







| GENERAL INFORMATION | |
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| Module | ***Module 2: THINKER Framework - authentic learning principles and practical guide*** |
| Unit | 2.1:*Understanding authentic learning - from theory to practice* |
| Target Group | Upper primary/lower secondary education teachers/trainers |
| Duration | 90 minutes |
| Prerequisites | / |
| ECTS | 0,06 |

| LEARNING OUTCOMES | |
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| 1 | Define and articulate the philosophy behind the authentic learning model. |
| 2 | Accurately list the 9 core elements of authentic learning and describe their role in lesson planning design, through a short verbal explanation. |
| 3 | Develop a lesson plan or instructional activity for an informatics topic that integrates elements of authentic learning. |

| TEACHING METHODS (select all that apply) | | | | |
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| √ | Learning by doing | √ | Peer learning |
|  | Project-based learning |  | Hands-on learning |
| √ | Active learning strategies | √ | Collaborative learning |
|  | Blended learning |  |  |

| LEARNING MATERIAL | |
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| Required material | A computer, a projection screen and access to the internet.  Handouts for Activity 3.  Pens, Paper |
| Additional resources | * University of New Hampshire: Teaching and Learning Lab Resource hub <https://www.unh.edu/teaching-learning-resource-hub/resources/all?field_unh_resource_category_target_id=All&field_unh_resource_topic_target_id=57&combine=> |

| UNIT CONTENT | |
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| Introduction | Welcome learners to the lesson. Explain the lesson objectives and give an overview of what they will expect during the lesson (Slide 3 & 4). Go through the introduction slide with an overview of the unit (Slide 5). |
| Activities | 1. Icebreaker Pair and Share (10 min) Slide 6:   * Ask learners to get into groups of 3 or 4. In groups, ask them to discuss their experiences in traditional schooling environments, mainly focused around rote memorization and lecture based learning. Focus the discussion on whether or not the traditional approach enhances or diminishes interest in subject matter. * Ask participants to go back to their groups and discuss how often they taught a lesson which utilized real-life problem solving using real and practical context. * Reflect as a big group some of the benefits of utilizing real-life examples in teaching and learning.   **Outcome:** Get learners to reflect on traditional learning methods, and see the positive possibilities related to authentic learning approaches. |
| **2. Definitions and Foundations of Authentic Learning (10 min)**  * Go through slides 7-10 on the theory and foundation of authentic learning. Engage learners in conversation as you see fit.   **Outcome:** Introduce Authentic Learning theory and definition to learners. |
| **3.** Authentic **Learning in Education** (15 min) Slides 11 and 12:.   * Watch the following case study video of Twin Rivers Public Charter School in Washington DC, and their authentic learning curriculum.   <https://www.youtube.com/watch?v=G3IL0J3XMbA>   * Engage learners in the discussion questions in the slides.   **Outcome:** Show the practical application of authentic learning in a real school environment. |
| 4. Authentic Learning Model Jigsaw (40 min) Slide 13:   * Ask learners to split into nine groups ( one element per group) (if small class, 3 groups will do with 3 elements each) * Pass out the handouts from slides 14-22, one slide for each element. In their groups, learners will read about their element, the guidelines for implementation and examples of its use. As a team, they will come up with at least one new example of the applied use of the element. * Then, groups will be reformed so new groups will be formed with representatives from each original group. In their new teams, they must teach their element to their new team including the new element they came up with. * Wrap up the activity with a whole class discussion and overview of all the elements. * Go over slide 24 with the important considerations regarding primary to secondary.   **Outcome:** Engage learners in peer learning techniques to enhance participation, interest and deeper understanding of the elements. |
| **5.** Authentic **Learning in Informatics** (20 min) Slides 15-25:   * *Scenario:* You need to develop an authentic context for students learning about **simple algorithms**. Learners can use one of the following prompts for ideas:  1. Finding the largest number 2. Counting how many times a number appears 3. Reversing a list 4. Checking if a number is even or odd  * In groups of 3, learners should work together to come up with an authentic context in which they will teach the simple algorithms. If there is time, in addition to the authentic context, groups can also incorporate at least 2 more elements of authentic learning. * Groups will then present their ideas to each other, 1-2 minutes each group.   **Outcome:** Engage learners in an exercise of coming up with an authentic context for informatics activities. |
| **6.** Review **and Reflection Writing Prompt** (5 min)  * Guide learners through the reflection prompts on slide 26. If there is time, engage learners in a whole group discussion.   **Outcome:** Learners reflect on the unit activities and materials, review what they learned. |
| Assessment | Assessment is incorporated throughout the lesson plan through: a) teaching the element to the other groups, b) coming up with an authentic learning context c) In the reflection writing exercise. |

| KEY TAKEAWAYS | |
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| Reflection and Conclusion | Learners will reflect on what they learned during this unit during Activity 4: Review and Reflect. |
| Homework/ Additional Tasks | Learners should come prepared for Unit 2.2 by identifying and preparing a specific informatics topic they plan to teach to their classroom in the near future. |