







| GENERAL INFORMATION | |
| --- | --- |
| Module | ***Module 6: Learning and assessment design for lower secondary classes based on the THINKER framework*** |
| Unit | *6.1: Designing learning activities aligned with the THINKER Framework -* |
| Target Group | Upper primary/ lower secondary education teachers/trainers |
| Duration | 90 minutes (personal studying time included) |
| Prerequisites | Concepts related to authentic and inclusive learning |
| ECTS | 0,06 |

| LEARNING OUTCOMES | |
| --- | --- |
| 1 | **Evaluate and adapt a successful lesson design example:** Analyze provided lesson examples and adapt them to their classrooms, adding at least one new task and formative assessment aligned with THINKER principles. |
| 2 | **Design a lesson aligned with the THINKER Framework:** Develop a 45-minute lesson plan integrating collaboration, creativity, and inclusivity with at least two learning outcomes and one formative assessment. |
| 3 | **Align learning outcomes, tasks, and assessments with THINKER principles:** Ensure each component follows the THINKER framework for authentic and inclusive learning. |
| 4 | **Incorporate gender-inclusive and collaborative learning practices:** Implement learning activities that promote inclusivity and engagement |

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

| LEARNING MATERIAL | |
| --- | --- |
| Required material | * PowerPoint slides on the THINKER Framework (e.g., Slides 5, 7, 12) * Handouts with [lesson design template](https://docs.google.com/document/d/1n1VHBEyVeP-XgNwlUlbaU1Lp5XizDV-A/edit?usp=drive_link&ouid=110976805246476538365&rtpof=true&sd=true)s (URL for the template: <https://docs.google.com/document/d/1n1VHBEyVeP-XgNwlUlbaU1Lp5XizDV-A/edit?usp=drive_link&ouid=110976805246476538365&rtpof=true&sd=true> ) * Case study examples of informatics lesson plans * THINKER Framework guidelines ([https://thinker.ucd.ie/](https://tinker-project.eu/) & <https://thinker.ucd.ie/resources/framework-and-toolkit/>) * Online collaboration tools (e.g., Google Docs, Jamboard, or Padlet) |
| Additional resources | * [Articles](https://drive.google.com/drive/u/0/folders/1XcRdFpTErNlp21JTIHFMwS6uif-aP0yX) on inclusive and gender-sensitive pedagogy * THINKER Framework documentation and [learning scenarios](https://thinker.ucd.ie/wp-content/uploads/2025/02/TINKER_WP2_Toolkit_Learning-Scenarios_EN_FV.pdf) available at the project website |

| UNIT CONTENT | |
| --- | --- |
| Introduction | This unit focuses on designing effective and inclusive learning activities using the THINKER Framework. The THINKER Framework emphasizes collaboration, creativity, and inclusivity in teaching. Informatics education is rapidly evolving, requiring teachers to integrate engaging, student-centered approaches that foster problem-solving and teamwork. By aligning lesson plans with the THINKER principles, educators can create authentic learning experiences that promote both digital skills and inclusive pedagogies.  This lesson builds on teachers’ prior knowledge of curriculum design, helping them analyze successful lesson examples, adapt them with collaborative tasks and formative assessments, and ultimately design their own THINKER-aligned lesson plans. Through activities participants will develop strategies to make informatics education more engaging, equitable, and effective. |
| Activities | 1. Introduction (5 minutes)  * **Slides:** Use Slides 5-10 from the provided presentation. * Provide a brief overview of the THINKER Framework and its importance in designing inclusive and collaborative learning experiences. * Connect the THINKER Framework to teachers’ prior knowledge, emphasizing how THINKER aligns with their existing curriculum. |
| 2. Analysing successful lesson designs (20 minutes)  * **Slides:** Use Slides 11-13 from the provided presentation. * **Step-by-Step:**   1. **Group Discussion (5 minutes):** Present 2 sample lesson designs aligned with the THINKER Framework.   2. **Collaborative Analysis (10 minutes):** In breakout groups, teachers identify elements of collaboration, creativity, and inclusivity within the samples.   3. **Share Outcomes (5 minutes):** Each group reports one highlight and one area for improvement. |
| 3. **Adapting a** lesson **for the** THINKERf**ramework (30 minutes)**  * **Slides:** Use Slides 14 -15. * **Step-by-step:**   1. **Template overview (5 minutes):** Review the provided lesson plans and work as a class to identify the main components of the lesson template. Explain the components of the lesson design template.   2. **Group work (15 minutes):** Each group (4-5 participants) adapts one of their lesson examples, by adding:      + A new collaborative task      + An assessment      + A THINKER-aligned learning outcome   3. **Gallery walk (10 minutes):** Groups showcase their adapted lessons on a shared digital board (e.g., Padlet). |
| 4.Designing **a** n**ew** THINKER**-**a**ligned** l**esson (25 minutes)**  * **Slides:** Use Slide 16. * **Step-by-Step:**   1. **Individual task (15 minutes):** Teachers draft a 45-minute lesson plan incorporating:      + **Two learning outcomes** aligned with THINKER      + **One collaborative task** (e.g., a pair programming exercise)      + **One assessment** (e.g., a peer feedback form)   2. **Peer review (5 minutes):** Swap lesson drafts and give feedback using the provided discussion thread.   3. **Share reflections (5 minutes):** Brief group discussion on challenges and insights. |
| Assessment | * Collect and review participants’ adapted and new lesson plans. * Discussion thread at LMS (Moodle) with two questions:  1. What was the most challenging aspect of aligning your lesson with the THINKER principles? 2. How can you ensure gender inclusivity in your future lesson designs? |

| KEY TAKEAWAYS | |
| --- | --- |
| Reflection and Conclusion | * **Summary:** Recap the key components of a THINKER-aligned lesson. * **Reflection questions:**  1. What was the most challenging aspect of aligning your lesson with the THINKER principles? 2. How can you ensure gender inclusivity in your future lesson designs? |
| Homework/ Additional Tasks | * **Create a detailed lesson plan:** Using the template provided, design a 45-minute THINKER-aligned lesson for your next class. Submit it to the course forum for peer review. * **Further reading:** Review the THINKER Framework Casebook for additional examples and [resources](https://thinker.ucd.ie/resources/framework-and-toolkit/). |