

TILL: A European Qualification of Teacher Competences for Lifelong Learning

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Grid Competence Assessment Strategies:

- 1. Metacognition + cognitive self-regulation*
- 2. Emotional self-regulation + ability to motivate and engage students*
- 3. Build on individual differences*
- 4. Generate a creative learning environment*
- 5. Information and Communications Technology*

Competence	Tools	Sub-scale	Description	Competence element	Example(s)
<p>1. METACOGNITION + COGNITIVE SELF-REGULATION</p> <p>Metacognition includes both knowledge of one's knowledge, processes, cognitive and affective states, and the ability to consciously and deliberately monitor and regulate one's knowledge, process, and cognitive and affective states.</p>	<p>Metacognitive Awareness Inventory for Teachers (MAIT – Balcikanli, 2011)</p>	<p>METACOGNITIVE KNOWLEDGE</p>	<p><i>Declarative Knowledge</i></p> <p>“knowing about things”, i.e. individuals' conceptions, and also their beliefs of task structures, their cognitive goals, and their own personal abilities</p>	<p>Understanding the importance of cognitive processes and learning styles as key element of learning (M1).</p>	<p>“I know I'm weak in remembering data” or “I know that author uses a metaphoric language”</p>
			<p><i>Procedural Knowledge</i></p> <p>“knowing how to do things”, i.e. strategies that lead individuals to resolve the problems</p>	<p>Stimulating students' awareness on how they learn and what's useful to them, so they can use it in different contexts (M2).</p>	<p>“I know how to use a scheme or key words to sum up a text”</p>
			<p><i>Conditional Knowledge</i></p> <p>“knowing why and when to apply declarative and procedural knowledge”, i.e. the knowledge we have about the conditions under which we can implement various cognitive strategies</p>	<p>Stimulate students' autonomous thought on which strategies they can apply when and for what reason, flexibility (M3).</p>	<p>“With this kind of material is better to sum up because of the many metaphors I don't need to grasp the meaning of the text”</p>
		<p>METACOGNITIVE REGULATION</p>	<p><i>Planning</i></p> <p>The selection of appropriate strategies and the allocation of resources that affect one's learning, i.e. setting goals, selecting strategies, and scheduling time and strategies</p>	<p>Support and guide learners to reflect on their learning (S2).</p>	<p>“What can I do to properly learn this? How can I work? How long will it take?”</p>
			<p><i>Monitoring</i></p> <p>One's on-line awareness of comprehension and task performance</p>	<p>Guide the students' learning process helping them to put together various disciplinary areas and beyond-classroom experiences (S7).</p>	<p>“Am I sure I am really learning? How can I put together the information I have”</p>
			<p><i>Evaluating</i></p> <p>Appraising the products and regulatory processes of one's learning, i.e. taking a look at the outcome and determining if the learning matches our goals and if the regulation processes utilized were effective</p>	<p>Provide clear criteria for students to compare their results to standards (S9).</p>	<p>“Did I reach my goal? Was my studying effective?”</p>

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<p>2. EMOTIONAL SELF-REGULATION + ABILITY TO MOTIVATE AND ENGAGE STUDENTS</p> <p>This area refers both to the ability to respond to the environment with the range of emotions in a manner that is socially tolerable and sufficiently flexible and to the ability to sustain the students' motivation towards learning.</p>	Teacher self-regulation scale (TSRS-Yesim et al., 2009)	<i>Intrinsic interest</i>	Beliefs concerning personal interest in the profession	Demonstrate genuine care and respect for the students as unique individuals with interests, concerns and intellectual potential (M1).	"It makes me happy to see my students learn"
		<i>Emotional control</i>	Strategies for controlling and regulating affect, mood and emotions	Assist students to create sound relationships with others (M4), i.e. the ability to be in control on personal affects and be able to cooperate with colleagues reflects on the students' ability to do so and to build positive significant relationships.	"When a problem occurs in class, I first try to calm down"
		<i>Help-seeking</i>	Getting help from others to resolve problems encountered in teaching process		"I ask for help from my colleagues when I encounter problems that I cannot solve."
	Teacher Self-Efficacy Scale (Bandura, 1998)	<i>Efficacy to Create a Positive School Climate</i>	The extent to which the teacher contributes to build a supportive environment for pupils and colleagues	Organise and monitor a supportive classroom environment (M3).	"How much can you do to make students enjoy coming to school?"
		<i>Instructional Self-Efficacy</i>	The ability of the teacher to challenge the pupils, engage them in activities and deal with the most "difficult" ones	Provide challenging tasks that enhance students' abilities (M2).	"How much can you do to keep students on task on difficult assignments?"
		<i>Disciplinary Self-Efficacy</i>	The ability of the teacher in making the pupils follow the rules and reducing dysfunctional behaviours in classroom	Implement classroom management strategies that enable students to progressively take responsibility for their own behaviour (M5).	"How much can you do to prevent problem behavior on the school grounds?"
	Teacher Attribution Scale (Ghanizadeh & Ghonsooly, 2015)		The idea teachers have with respect to the role of internal/external and controllable/uncontrollable (e.g. effort VS luck) factors in determining performance.	Recognise and reward learners' effort, not only absolute performance (M8).	"Do you think your performance as teacher depends on the effort you put in preparing classes or on random factors?"
	Revised Implicit Theories of Intelligence (De Castella & Bryne, 2015)		The idea teachers' have that abilities are either nature-given or can be built through experience.	Encourage students in working on their abilities as something improvable.	"Do you think your ability in teaching is innate or can be improved?"

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<p style="text-align: center;">3. BUILD ON INDIVIDUAL DIFFERENCES</p> <p>Creating an educational environment, in which each pupil is able to express his/her individuality, by representing things in a number of different ways. Providing an integrated and coherent learning system, which is decontextualized and flexible and also with regard to what is known as “transfer”, i.e. the application and transfer of knowledge.</p>	<p>Teaching Style Questionnaire (Mariani, 2010)</p>	<p>Knowing personal characteristics as teacher and demonstrating a flexible and adaptable approaches (19).</p>	<p>“I ask students to make an in-depth study of an item which reflects a more general problem.”</p>
	<p>Teachers’ meta-awareness test on cognitive and learning styles – PART A (developed by the Unimore team)</p>	<p>Understand that existing knowledge and experience play a decisive role in processing new information (11).</p>	<p>“Which are the elements you need to take into account when you want to design a lesson?”</p>
		<p>Built the understanding that inclusive and equitable education systems promote gender equality, reduce inequalities, develop teacher and system capabilities, encourage supportive learning environments and contribute to overall improvements in educational quality (17).</p>	
	<p>Teachers’ meta-awareness test on cognitive and learning styles – PART B (developed by the Unimore team)</p>	<p>Given student’s differences on cognitive and conative (personality, needs, motivation, interests, risk taking , motivational preferences) factors, know that the best way to develop knowledge, skills and abilities for one student is not necessarily the best for another (13).</p>	<p>“What kind of tools would you use to support a student who’s a visual learner?”</p>
<p>Develop or use existing tools to ensure that individual differences are assessed so that these are considered in planning, teaching, learning and assessment (14).</p>			

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<p>4. GENERATE A CREATIVE LEARNING ENVIRONMENT</p> <p>Defined both as a product (i.e. something new, or something never used in a certain way before) or a process (a divergent way to approach a problem), creativity mainly refers to the ability to make connections between information or elements of the environment in a novel way, and to bring all pieces together, by giving birth to something innovative.</p> <p>It is also described as a complex behavior in which the individual utilizes mental abilities in a special way to generate new products or solutions, and links it to curiosity and perseverance.</p>	Teacher's creativity nurturing behaviour (TCNB - Sharma & Sharma, 2018)	<i>Abstraction</i>	Ability to provide opportunity to the student to explore his/her idea	Respecting students' input in the lesson, even if it is divergent from the original lesson plan (C3).	"The students have opportunity to share their ideas and suggestions during the class"
		<i>Critical thinking</i>	Ability to stimulate objective analysis and evaluation of an issue in order to form a judgement	Developing the problem-solving and divergent thinking skills of the children (C5).	"To develop critical thinking, I enquire students about their idea"
	Teaching for Creativity Scales (Rubenstein, McCoach & Del Siegle, 2013)	<i>Teacher self-efficacy</i>	Teachers' perceived ability to foster creativity in their students	Actively support creative and innovative thinking (C4).	"I am capable of helping students to become more flexible in their thinking"
		<i>Student potential</i>	Teachers' perceptions of the potential for students to become more creative	Creating learning environments where creativity is cherished (C7).	"All students can grow in their creative problem solving skills"
	Creative Teaching Inventory (CTI - Palaniappan, 2009)	<i>Innovative</i>	Teachers' tendency to be highly involved in their job and to be creative themselves in teaching	Teaching with enthusiasm and sensitivity and responding insightfully to the children's social and emotional needs (C8).	"I like to search for new ways to entertain my students"
		<i>Spontaneous</i>	Teachers' tendency to spontaneously adapt the lesson to the students' needs	Adapt the needs of the learner throughout the lesson (C10).	"I can give spontaneous examples to enhance students' understanding"

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<p data-bbox="367 268 833 328" style="text-align: center;">5. ICT via DigCompEdu https://ec.europa.eu/jrc/en/digcompedu</p> <p data-bbox="165 363 1037 611">The European Framework for the Digital Competence of Educators (DigCompEdu) is a scientifically sound framework describing what it means for educators to be digitally competent. It provides a general reference frame to support the development of educator-specific digital competences in Europe. DigCompEdu is directed towards educators at all levels of education, from early childhood to higher and adult education, including general and vocational education and training, special needs education, and non-formal learning contexts.</p>	<p data-bbox="1084 408 1621 469" style="text-align: center;">https://ec.europa.eu/jrc/en/digcompedu/self-assessment</p>	<p data-bbox="1671 220 2033 309">Use ICT in order to diversify the educational offer and make it feasible for all students.</p> <hr/> <p data-bbox="1659 319 2051 469">Encourage students to adopt learning approaches that they can master (including the autonomous use of ICT tools and resources) and correct ineffective habits.</p> <hr/> <p data-bbox="1659 478 2051 657">Acquire and use a large repertoire of assessment methods to meet the differentiated students' profiles and encourage students to report on how they assess their own learning achievements.</p>