

## COMPETENCE GRID FOR THE

# DiKoLAN - COMPETENCY AREA "PRESENTATION"



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The competence area Presentation (PRE) describes the individual ability to use digital media in a targeted and addressee-oriented manner for the knowledge acquisition and communication process as well as the knowledge of the limits and potentials of different digital presentation media.

### Work assignment

The following competence grid serves as a diagnostic tool for you. Assess your current **presentation** skills and abilities. Read through the competence descriptions and indicate on the scale to what extent you have already mastered them. Please provide an assessment for each competency!

#### Online supplement to the article:

Von Kotzebue, L., Meier, M., Finger, A., Kremser, E., Huwer, J., Thoms, L.-J., Becker, S., Bruckermann, T., & Thyssen, C. (2021). The Framework DiKoLAN (Digital Competencies for Teaching in Science Education) as Basis for the Self-Assessment Tool DiKoLAN-Grid. *Education Sciences*, 11(12), 775. doi:10.3390/educsci11120775

		LEVELS OF PERFORMANCE		
		A1 (Name)	A2 (Describe)	A3 (Use/Apply)
COMPETENCY AREA PRESENTATION	Special tools (TK)	<p>I can name several technical options for presenting content of different sizes (e.g., document camera, video camera, smartphone, tablet) and processes on different time scales (e.g., slow motion, fast motion).</p> <p><i>do not agree at all</i> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <i>fully agree</i></p>	<p>For each type of presentation (e.g., of content, processes / for several groups or individual recipients) I can describe at least one possibility of technical implementation including the necessary procedure with reference to current hardware and software and associated technical standards.</p> <p><i>do not agree at all</i> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <i>fully agree</i></p>	<p>I can operate, calibrate and use at least one system for presentation (e.g., of content, processes / for several groups or single recipients).</p> <p><i>do not agree at all</i> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <i>fully agree</i></p>
		<p>I can name several technical options for presenting to a larger audience (e.g., projectors, interactive whiteboards), to multiple groups (e.g., display on multiple devices), and/or to a single recipient.</p> <p><i>do not agree at all</i> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <i>fully agree</i></p>	<p>I can describe the features/functionality, technical requirements and any limitations of the respective systems for presentation (e.g., of content, processes / for several groups or individual recipients).</p> <p><i>do not agree at all</i> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <i>fully agree</i></p>	
	Content -specific context (TCK)	<p>I can name several subject-specific/scientific scenarios and, if applicable, contexts for digital presentation forms and the digital presentation of processes (e.g., time-lapse for osmosis and/or motion) and for the use of presentation hardware (e.g., microscope cameras, mobile devices with cameras).</p> <p><i>do not agree at all</i> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <i>fully agree</i></p>	<p>I can describe selected scientific presentation forms and media (e.g., high-speed recordings of collisions, making diagrams, time-lapse recordings) by way of example.</p> <p><i>do not agree at all</i> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <i>fully agree</i></p>	<p>I can create and present presentations in a scientific context using selected digital presentation media (e.g., high-speed collision recording, diagramming, time-lapse photography).</p> <p><i>do not agree at all</i> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <i>fully agree</i></p>
		<p>I can name several subject-specific/scientific scenarios and, if applicable, contexts for the use of presentation software (e.g., Matlab) that meet current subject-specific requirements and citation rules.</p> <p><i>do not agree at all</i> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <i>fully agree</i></p>		

		LEVELS OF PERFORMANCE		
		A1 (Name)	A2 (Describe)	A3 (Use/Apply)
COMPETENCY AREA PRESENTATION	Methods, Digitality (TPK)	<p>I can name principles/criteria for designing digital presentation media appropriate for the target audience (e.g., CTML according to Richard E. Mayer, design psychology according to Wertheimer and Palmer).</p> <p><i>do not agree at all</i> <span style="float: right;"><i>fully agree</i></span></p> <p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p>	<p>I can describe principles/criteria for designing digital presentation media that are appropriate for the target group (e.g. cognitive theory of multimedia learning according to Richard E. Mayer, Gestalt psychology according to Wertheimer and Palmer).</p> <p><i>do not agree at all</i> <span style="float: right;"><i>fully agree</i></span></p> <p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p>	<p>I can select, adapt and use existing and created presentation media, taking into account technical possibilities and limitations as well as principles/criteria for addressee-appropriate design.</p> <p><i>do not agree at all</i> <span style="float: right;"><i>fully agree</i></span></p> <p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p>
		<p>I can name possible aspects that can be affected by the use of digital presentation media in learning and teaching, e.g., with regard to: Time requirements, Forms of organization, Forms of presentation, Methods, Media knowledge/instruction, Interest and motivation, Personal and social consequences.</p> <p><i>do not agree at all</i> <span style="float: right;"><i>fully agree</i></span></p> <p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p>	<p>I can describe pedagogical prerequisites as well as advantages and disadvantages, e.g., time required, forms of organization, methods, interest, forms of presentation, media skills, which arise methodically when using digital presentation media.</p> <p><i>do not agree at all</i> <span style="float: right;"><i>fully agree</i></span></p> <p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p>	
	Teaching (TPACK)	<p>I can name suitable alternatives to (scientific) presentation media for school use (e.g., instead of an integrated microscope camera, a digital handheld microscope, mobile devices as a high-speed camera).</p> <p><i>do not agree at all</i> <span style="float: right;"><i>fully agree</i></span></p> <p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p>	<p>I can describe the didactic prerequisites for the use of digital presentation media in the classroom and the effects of these on the respective teaching methods.</p> <p><i>do not agree at all</i> <span style="float: right;"><i>fully agree</i></span></p> <p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p>	<p>I can plan and implement complete teaching scenarios using digital presentation media and forms and taking into account suitable social and organizational forms.</p> <p><i>do not agree at all</i> <span style="float: right;"><i>fully agree</i></span></p> <p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p>
		<p>I can name different scenarios for the appropriate use of digital presentation media in specific teaching/learning settings/contexts, (appropriate to the addressee, subject and target).</p> <p><i>do not agree at all</i> <span style="float: right;"><i>fully agree</i></span></p> <p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p>	<p>I can describe access to basic competencies (especially communication competencies) enabled by digital presentation media, especially in inclusive teaching and learning.</p> <p><i>do not agree at all</i> <span style="float: right;"><i>fully agree</i></span></p> <p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p>	<p>I can use digital media to simplify scientific presentations for the school context and make them more understandable.</p> <p><i>do not agree at all</i> <span style="float: right;"><i>fully agree</i></span></p> <p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p>