

Supplementary Material Table 1. Blueprint of Validation Instrument for LKM Development

Aspect	Dimension	Indicator	Sample Item
Content	Relevance of Case	Case aligns with emotional development concepts	The presented case is relevant to emotional development concepts
		Case reflects real-life situations	The presented case reflects real-life situations of students
	Theory Alignment	Case can be analyzed using theory	The case can be analyzed using emotional development theory
	Critical Thinking	Supports problem identification	The case helps students identify problems accurately
		Supports analysis	The case encourages analysis of theory and phenomena
Pedagogical	Problem Solving	Supports solution development	The case encourages development of rational solutions
		Supports decision making	The case supports decision-making based on analysis
	Learning Objectives	Alignment with learning outcomes	The LKM aligns with the intended learning objectives
		Problem orientation	The LKM presents contextual problems
		Problem identification	The LKM guides students to identify problems
	PBL Syntax	Investigation	The LKM guides students to collect relevant information
		Analysis	The LKM facilitates analysis using theory
		Solution development	The LKM guides students to develop solutions
	Critical Thinking	Encourages analysis and evaluation	The LKM supports analytical thinking processes
Design	Student Engagement	Encourages participation	The LKM promotes active student involvement
		Organization	The layout of the LKM is arranged systematically
	Layout	Readability	The spacing and layout support readability
	Typography	Font clarity	The font used is easy to read
		Image relevance	Images are relevant to the content
	Visual		
		Image quality	Images are clear and not

Language (Indonesian)	Consistency	Formatting consistency	blurred Formatting is consistent across sections
	Visual Appeal	Attractiveness	The LKM is visually appealing
	Clarity	Sentence clarity	The sentences are clear and easy to understand
	Instruction	Instruction clarity	Instructions are easy to follow
	Readability	Supports understanding	The language supports student understanding
Language (English)	Grammar	Correct grammar	The sentences follow correct grammar rules
	Diction	Appropriate terminology	The terminology is appropriate to context
	Clarity	Easy to understand	The sentences are easy to understand
	Instruction	Clear instructions	Instructions are clearly presented

Note:

The number of items in each aspect was adjusted based on the complexity of the construct and evaluation needs. All items were rated using a 5-point Likert scale ranging from strongly inappropriate (1) to strongly appropriate (5).