21ˢᵗ Century Skills Assessment Rubric

In addition to assessing the project design proposal and final report, it is also important to assess 21st century skills as one of the important elements in project-based learning. The assessment of 21st century skills is then divided into 3 assessment indicators, namely learning skills, literacy skills and life skills.

A. *Learning Skills*

Learning skills in 21st century skills include critical thinking skills, creation and innovation skills, collaboration skills and communication skills. Assessment of these aspects can use the assessment format and rubric below.

LEARNING SKILLS ASSESSMENT

CLASS/SEMESTER   :
STUDENT'S NAME/GROUP NAME   :

No.	Scoring Aspects	Score				Total
		1	2	3	4	
1	*Critical Thinking*					Learning Skills scores are obtained using the formula:
2	*Creativity and Innovation*					
3	*Communication*					$$\frac{Score\ Obtained}{4\ (Total\ Indicators)}$$
4	*Collaboration*					
	Total Nilai					For example: A student gets a total score of 12, then: $$\frac{12}{4} = 3$$ Thus, the value of learning skills obtained by students or groups of students is 3

Assessment Rubric Description:

No.	Indicators	Score	Description
1	*Critical Thinking*	4	Students / Student Groups are able to: • Identify key problem aspects and consider the complexity of the problem. • Evaluate the information received in detail • Use existing theories by making adaptations to the theory according to the problem at hand • Receive input from various parties with full consideration • Determine solutions and alternative solutions to the problems faced
		3	Students/Student Groups: • Fairly capable of identifying key problem aspects and considering the complexity of the problem. • Able to evaluate the information received but not in detail. • Use existing theories by adapting them to the problem at hand. • Receive input from various parties with little consideration • Can determine the solution to the problem at hand
		2	Students/Student Groups: • Less able to identify key problem aspects and consider the complexity of the problem. • Able to evaluate the information received but not in detail • Less able to use existing theories by adapting the theory according to the problem at hand. • Receive input from various parties without consideration • Less able to determine solutions to the problems faced
		1	Students/Student Groups:

				• Less able to identify key problem aspects and consider the complexity of the problem. • Lack of ability to evaluate the information received • Unable to use existing theories by adapting them to the problem at hand. • Receive input from various parties without consideration • Unable to determine the solution to the problem at hand
2	*Creativity and Innovation*	4		Students / Student Groups are able to: • Understand the purpose of the project • Consider the users of the end result of the project (product) • Determine the solution to the problem at hand • Able to provide new ideas in solving problems
		3		Students/Student Groups: • Somewhat able to understand the purpose of the project • Sufficiently able to consider the users of the end result of the project (product) • Sufficiently able to determine the solution to the problem at hand • Able to adopt and adapt existing ideas in solving problems
		2		Students/Student Groups: • Lack of ability to understand the purpose of the project • Less able to consider the user of the final project result (product) • Adequately able to determine solutions to the problems faced • Adequately able to adopt and adapt existing ideas in solving problems
		1		Students/Student Groups: • Lack of ability to understand the purpose of the project • Less able to consider the user of the final project result (product) • Lack of ability to determine solutions to the problems faced • Less able to adopt and adapt existing ideas in solving problems
3	*Communication*	4		Students/Student Groups are able to: • Communicate well with team members • Communicate ideas to team members clearly • Communicate ideas to the general public clearly
		3		Students/Student Groups are able to: • Communicate with team members reasonably well • Communicate ideas to team members clearly enough • Communicate ideas to the general public with sufficient clarity
		2		Students/Student Groups are able to: • Communicate poorly with team members • Communicate ideas to team members less clearly • Communicate ideas to the general public with less clarity
		1		Students/Student Groups: • Lack of ability to communicate with team members • Not able to convey ideas to team members clearly • Not able to convey ideas to the general public clearly
4	*Collaboration*	4		Students/Student Groups are capable: • Be responsible for the tasks and roles of each team member. • Complete tasks on time • Cooperate between team members • Accept input, suggestions and criticism from others
		3		Students/Student Groups: • Responsible for the tasks and roles of each team member • Fairly able to complete tasks on time • Adequately able to cooperate between team members • Adequately able to accept input, suggestions and criticism from others
		2		Students/Student Groups: • Moderately able to be responsible for the tasks and roles of each team member • Less able to complete tasks on time

		1	Students/Student Groups: • Lack of ability to be responsible for the tasks and roles of each team member • Lack of ability to complete tasks on time • Less able to cooperate between team members • Less able to accept input, suggestions and criticism from others

(continued from)
• Moderately able to cooperate between team members
• Less able to accept input, suggestions and criticism from others

B. *Literacy Skills*

Literacy skills are skills that help create and acquire new knowledge through reading, media and digital resources. Literacy skills include information, media and technology literacy. Literacy skills assessment can use the assessment fomat below.

LITERACY SKILLS ASSESSMENT

CLASS/SEMESTER   :
STUDENT'S NAME/GROUP   :

No.	Scoring Aspects	Score				Total
		1	**2**	**3**	**4**	
1	*Information Literacy*					Learning Skills scores are obtained using the formula:
2	*Media Literacy*					
3	*Technology Literacy*					$$\frac{Score\ Obtained}{3\ (Total\ Indicators)}$$
	Total					For example: A student gets a total score of 11, then: $$\frac{11}{3} = 3.6$$ Thus, the value of learning skills obtained by students or groups of students is 3.6

Assessment Rubric Description:

No.	Indicators	Score	Description
1	*Information Literacy* *Media Literacy* *Information Literacy*	4	Students/groups of students are able to find, understand and use facts, various graphs and data in solving a problem
		3	Students/groups of students are able to find, understand but are less able to use facts, various graphs and data in solving a problem
		2	Students/groups of students are able to search but less able to understand and less able to use facts, various graphs and data in solving a problem
		1	Students/groups of students are less able to search, understand and be able to use facts, various graphs and data in solving a problem.
2	*Media Literacy* *Information Literacy* *Media Literacy*	4	Students/groups of students are able to identify sources appropriately and appropriately and are able to assess the quality of information thoroughly by considering the accuracy, usefulness, and credibility of a source.
		3	Students/groups of students are sufficiently able to identify sources appropriately and appropriately and are able to assess the quality of information thoroughly by considering the accuracy, usefulness, and credibility of a source.
		2	Students/groups of students are sufficiently able to identify sources appropriately and appropriately and are sufficiently able to assess the quality of information as a whole by considering the accuracy, usefulness, and credibility of a source.
		1	Students/groups of students are less able to identify sources appropriately and appropriately and less able to assess the overall

3	*Technology Literacy*	4	Students are able to use various technology tools in completing projects and solving problems encountered
		3	Students are moderately able to use various technology tools in completing projects and solving problems encountered.
		2	Students are less able to use various technology tools in completing projects and solving problems encountered
		1	Students are not able to use various technology tools in completing projects and solving problems encountered.

C. *Life Skills*

Life skills are the skills needed to successfully navigate everyday life. Life skills include flexibility, leadership, initiative, productivity and social skills. Life skills assessment can use the assessment format below.

LIFE SKILLS ASSESSMENT

CLASS/SEMESTER　　　:
STUDENT'S NAME/GROUP　:

No.	Scoring Aspects	Score				Total
		1	2	3	4	
1	*Flexibility*					Learning Skills scores are obtained using the formula: $$\frac{Score\ Obtained}{5\ (Total\ Indicators)}$$ For example: A student gets a total score of 17, then: $$\frac{17}{5} = 3.4$$ Thus, the value of learning skills obtained by students or groups of students is 3.4
2	*Leadership*					
3	*Initiative*					
4	*Productivity*					
5	*Social Skills*					
	Total					

Assessment Rubric Description:

No.	Indikator	Skor	Keterangan
1	*Flexibility*	4	Students / student groups are able to find solutions to the problems faced, able to adopt and adapt to new strategies to solve problems
		3	Students/groups of students are moderately able to find solutions to the problems faced, moderately able to adopt and adapt to new strategies to solve problems.
		2	Students/groups of students are less able to find solutions to the problems faced, less able to adopt and adapt to new strategies to solve problems.
		1	Students/groups of students are unable to find a way out of the problems faced, unable to adopt and adapt to new strategies to solve problems.
2	*Leadership*	4	Students/groups of students are able to determine a goal, steps to achieve the goal and how to work together to achieve the goal.
		3	Students/groups of students are moderately able to determine a goal, the steps to achieve that goal and how to work together to achieve that goal.
		2	Students/groups of students are less able to determine a goal, steps to achieve the goal and how to work together to achieve the goal
		1	Students/groups of students are not able to determine a goal, steps to achieve the goal and how to work together to achieve the goal.

3	*Initiative*	4	Students/groups of students are able to plan and start a project independently and determine strategies in carrying out the project
		3	Students/groups of students are moderately able to plan and start a project independently and determine strategies in carrying out the project.
		2	Students/student groups are less able to plan and start a project independently and determine strategies in carrying out the project.
		1	Students/groups of students are not able to plan and start a project independently and determine strategies in carrying out the project.
4	*Productivity*	4	Students/groups of students are able to utilize the project time well (according to the implementation schedule) and are able to produce outputs in accordance with the plans that have been prepared.
		3	Students/groups of students are quite capable of utilizing the project work time well (according to the implementation schedule) and being able to produce outputs in accordance with the plans that have been prepared
		2	Students/student groups are less able to utilize the project time well (according to the implementation schedule) and are able to produce outputs in accordance with the plans that have been prepared
		1	Students/groups of students are not able to utilize the project time well (according to the implementation schedule) and are able to produce outputs in accordance with the plans that have been prepared.
5	*Social Skills*	4	Students/groups of students are able to communicate between team members and build networks or relationships in order to achieve common goals and interests.
		3	Students/student groups are moderately able to communicate between team members and build networks or relationships for the achievement of common goals and interests.
		2	Students/student groups are less able to communicate between team members and build networks or relationships in order to achieve common goals and interests.
		1	Students/groups of students are not able to communicate between team members and build networks or relationships in order to achieve common goals and interests.

D. 21st Century Skills Assessment

The assessment of 21st century skills needs to be based on three categories of 21st century skills. The three categories are learning skills, literacy skills and life skills. To get the value of 21st century skills, the calculation of the value uses the formula below:

$$Total = \frac{Score\ of\ Learning\ Skills + Score\ of\ Literacy\ Skills + Score\ of\ Life\ Skills}{3\ (Total\ Indicator\ of\ 21st\ Century\ Skills)}$$

For example, we use the existing values from the previous section. So:

$$Total = \frac{3 + 3,6 + 3,4}{3} = 3,3$$

Thus the 21st century skills score obtained is 3.3.